

DO HUMAN CAPITAL DRIVERS, KNOWLEDGE MANAGEMENT CAPABILITIES, AND SERVICE INNOVATION LINKS OF ANY IMPACT ON THE ORGANIZATION PERFORMANCE? THE CASE OF INDONESIAN ISLAMIC BANKING

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Abstract:

This article aims to propose a model of Indonesia's Islamic Banking performance that consists of human capital driver, knowledge management, service innovation, and performance in an organization. The research was conducted using a survey approach between June 2019 and December 2019, with a sample size of 276 respondents. The data was analyzed using SMAR-PLS to test the model's hypotheses. The research design is focused on empirical analysis of a model constructed based on the research framework on Islamic banking in Indonesia. The objective this study is to elucidate the development of an organizational performance model supported by internal management organization in a case organization of Islamic banking. Based on the analysis and discussion, the influencing factors in this study concluded that linking the three variables to Islamic banking performance has a positive and significant influence on the efficiency of Islamic banking performance in general, except the human capital drivers. It is because human capital drivers need mediating variables.

Key words: Banking, Human Capital, Islamic Finance, Knowledge management, Performance, Service Innovation, Conventional Commercial Bank

Introduction

Organisational performance is one of the extensively studied concepts as a main theme in the field of management and organization sciences for more than three decades (Beck et al., 2013; Hanif et al., 2012; Johnes et al., 2014; Mollah & Zaman, 2015). Organisations are said succeed if they can achieve their set goals and objectives (Venkatraman & Ramanujam, 1986), by benefiting resources in both an efficient and effective way (Daft, 2015; Stephen P. Robins, 2012). The process of performing a function successfully is named performance. Improving performance is crucial for any organization for

some reasons such as, only through performances are organizations able to grow and progress (Corina, Liviu, & Roxana, 2011), performance can steer the organization to realize its strategic and operational goals (Popova & Sharpanskykh, 2010), and performance draw that an organization successfully achieving their vision and mission (Akeem & Edwin, 2016).

Along with the increasing research on organizational performance, many research studies have also emerged which propose about recognizing the determinants variables of organizational performance as well as organizational performance model. Including

those researches are organizational lag model (Damanpour & Evan, 1984), innovation-driven organizational performance model (Baker & Sinkula, 1999), organizational culture and performance model (Marcoulides & Heck, 1993), modeling organizational performance indicators (Popova & Sharpankykh, 2010), determinants of organizational performance (Liviú & Stegorean, 2011), an evolutionary model of organizational performance (Barnett et al., 1994), and Schein model test (Hogan & Coote, 2014). The model is partly conceptual, some have been tested but none have the context for organizations positioned as late-entry industry.

This paper uses Indonesian Islamic banking as a case study because of its unique characteristics and conditions. Islamic Banking as a new component, it is positioned as a late-entry concept in the financial industry, and the concept's unique characteristics as an idea that brings religious values into business make the whole concept "Islamic Banking performance", a very new point of focus, which requires knowledge, high level innovation and quality human capital to make a strong employee team within the Islamic Banking industry. An organisation which aims to attain better performance needs employees who have specific embodied capacities and attributes that appeal to the senses of customers (Warhurst and Nickson, 2007).

Most research on Islamic bank performance are influenced by macroeconomic factors and financial variables; only a few examined the effect of management variables on Islamic bank performance. The following are some studies related to management variables that effect Islamic Banks performance: human resource management practice (Masum et al., 2016); shariah supervision and corporate governance (Mollah & Zaman, 2015), intellectual capital (Nawaz & Haniffa, 2017); corporate social responsibility (Faliza, 2016). However, it is rarely research on integrated Islamic bank performance model from the management side.

Preliminary research conducted by Pertiwi et.al (2021) by interviewing 48 stakeholders found that Indonesian Islamic banking performance face two challenges, those are internal complexity and externally competition. The presence of Islamic

banking in Indonesia with its different vision and operational system, contains its complexities, namely still looking for working models for products, different human capital values, and different orientation toward customers. In addition to facing internal complexity, IBs in Indonesia as a late-entry industry must also face competition in the form of a conventional banking mindset that has been established, low Islamic Banking Literacy, low Customer Trust, Religious versus business issues, and together with conventional banks must also answer challenges of the disruptive era in the field of financial technology.

The results of the previous study and interview raised three internal organizational variables that are estimated to affect the performance of Islamic banking, namely service innovation, human capital drivers, dan knowledge management capability. The first is service innovation, this is in line with the study of sharia banking practitioners from Kuwait Investment Company, Baljeet Kaur Grewal (2007) who stated that Indonesia still occupy the third cluster in the innovation of Islamic banking products and services. The fourth cluster is the most innovative and varied country in product development. It cannot be denied that there is a strong relationship between product and service innovation of Islamic Banking with market attention. It can be said that the more innovative the Islamic banking makes services, the faster the market will grow.

The second is the scarce of qualified human capital in Islamic banking in term of quantity and quality. Human capital in this context are people that have commitment, qualification, and competence sharia system so they can participate and give contribution to the development of Islamic banking (Farizal, 2015). There are a lot of qualified human capital in banking but usually they prefer to choose conventional banking, because they have better remuneration and brand image. Only 85% of the 300,000 human resources working in the Islamic Banking industry currently lack sufficient knowledge of sharia. But in term of quality, there are drivers of human capital that will affect the organizational performance.

Third, different from conventional banking, the additional name Islamic, give profound consequences toward organization's vision,

mission, culture, and practices; that need specific knowledge (Lenga & Hanum, 2015); so, it can be assumed that knowledge management has critical role in that kind of industry. There is research that proof the correlation between knowledge management and organizational performance in Bank Syariah Mandiri (BSM) as the market leader in Indonesia Islamic Banking (Supriyanto, 2015). But the research about knowledge management in Islamic Banking is still rare.

Based on the explanations above, few previous studies on the topic of the development of organizational performance model and the result of the preliminary study, which address management internal organization, have been carried out in the context of the Islamic Banking. This paper fills the scarcity of research on the mentioned topic and context. The purposes of this paper are: (1) Identify the main management variables that play significant roles in effectively boosting Islamic banking performance; (2) Propose an integrated organizational performance model that provides a framework to support and guide to the development of Islamic banks performance; (3) Testing the model through statistical analysis.

Literature Review

This literature review section will answer the first objectives to uncover the variables that affect organizational performance by exploring previous research each on dependent variables: service innovation, human capital drivers, and knowledge management capability. This section will summarize with a proposed model of Islamic banking performance and hypothesis to test the model.

Organizational Performance Model

Previous research has uncovered variables that influence organizational performance, including innovation (Baker & Sinkula, 1999; Byukusenge & Munene, 2017; Chowhan, 2016; Corina, Liviu, & Stegorean, 2011; Damanpour & Evan, 1984; Darroch, 2005; Hogan & Coote, 2014; Ishaq et al., 2016; Mafini, 2015; Milbratz et al., 2020);

knowledge management (Ahmad Qadri et al., 2021; Byukusenge & Munene, 2017; Darroch, 2005; Ho, 2008; Ngah et al., 2016); organizational culture (Hogan & Coote, 2014; Marcoulides & Heck, 1993); human resource/capital management (Akdere & Egan, 2020; Azlina et al., 2017; Campos e Cunha et al., 2003; Chowhan, 2016; Han et al., 1998; Jamal & Saif, 2011; Kim, 2010; Odhong, 2014); learning organization (Ahmad Qadri et al., 2021; Barnett et al., 1994; Ho, 2008; Ngah et al., 2016); strategic management (Campos e Cunha et al., 2003); leadership (Akdere & Egan, 2020; Almatrooshi et al., 2016; Khan et al., 2018); employee performance (Mastrangelo et al., 2014).

Although those studies conducted in various industrial contexts, it can be concluded that organizational performance is a multi-dimensional model that is influenced by a wide variety of internal and external variables. The question is whether these models can apply to all industrial contexts, such as banking industries.

Research on the performance of conventional banking shows that the independent variables that affect organizational performance are very diverse, including aspects of strategic management (Alatailat et al., 2019; Yavas & Yasin, 2001); Human resource/capital management (Alatailat et al., 2019; Gelade & Ivery, 2003; Githaiga, 2020; Masum et al., 2016; Sanda & Kuada, 2016); organizational culture (Al-kalouti et al., 2020; Imran et al., 2021; Uzkurt et al., 2013); customer relationship management (Lebdaoui & Chetioui, 2020; Ullah et al., 2020); innovation and service innovation (Ahmad Qadri et al., 2021; Al-Dmour et al., 2020; Al-kalouti et al., 2020; Imran et al., 2021; Uzkurt et al., 2013; YuSheng & Ibrahim, 2019), knowledge management (Ahmad Qadri et al., 2021; Al-Dmour et al., 2020; Al-kalouti et al., 2020); ownership structure (Ferri et al., 2015); and geographical complexity (Nyola et al., 2021).

There are not many studies that discuss the Islamic banking performance model from the management side. Among the variables considered to influence are macroeconomic (Al-Nasser Mohammed & Jorih Muhammed, 2017), ownership structure (Zouari & Taktak, 2014), board structure/characteristics (Bukair & Abdul Rahman, 2015; Jabari & Muhamad, 2020), shariah

supervisory board (SSB) (Jabari & Muhamad, 2020; Mollah & Zaman, 2015), corporate governance (Mollah & Zaman, 2015), organizational culture (Imran et al., 2021), social performance (Bukair & Abdul Rahman, 2015; Faliza, 2016), innovation (Faliza, 2016; Imran et al., 2021), intellectual capital (Nawaz & Haniffa, 2017; Nurpermana & Mulya, 2021; Ousama et al., 2020), human capital (Nawaz & Haniffa, 2017), service quality (Ali & Naeem, 2019; Lebdaoui & Chetioui, 2020), Islamic performance index (Nurpermana & Mulya, 2021).

Other Islamic banking research themes, among others, are related to the application of knowledge management in Islamic Banks (Abuazoum et al., 2013; Cader et al., 2013; Conference et al., 2014; Nurdin & Yusuf, 2018), Islamic banks customer behaviour (Karim & Affif, 2005; M. S. N. Khan et al., 2007), human capital in Islamic banking (Muafi et al., 2017), stakeholder perception (Dusuki, 2008), Islamic Banks customer perception (Al-Hadrami et al., 2017; Rashid & Hassan, 2014; Rusydiana & Hasib, 2019; Usman, 2015).

Based on the literature review and analysis of the phenomenon of Indonesian Islamic banks in the introduction section, the variables that are thought to affect organizational performance are service innovation, human capital drivers, and knowledge management capability. The relationship between variables will explore in the next sub section.

Service Innovation

Banking institutions are now competing based on services rather than on physical products as it is hard to distinguish between products of competing brands in each product category. It is the service offered by the banks that manifests true value. Gronroos (1984) defined services as “an activity of more or less intangible nature that normally, but not necessarily, takes place in interactions between the customer and service employees and/or physical resources or goods and/or the service provider, which are provided as solutions to clients problems”. Service is the process of using one’s competencies (knowledge and skills) for the benefit of another party, while goods act as distribution mechanisms for the provision of

services. Furthermore, the customer is always a co-creator of value (Vargo & Lusch, 2004; Wieland et al., 2016). This led to the need of continuous innovation to offer new values with the customers.

Service innovation involves intangible resources for a more radical service logic perspective that challenges the conventional attribute-based view of services delivery designs. It goes beyond the conventional boundaries of product innovativeness and involves assimilation of improved service processes by means of designing and improvising service delivery systems (Lay Hong et al., 2016). Service innovation may refer to new service design and development, innovation in processes, and organizational innovation (Miles, 2000) and can be related to changes in the concept of a service, the client interface, the delivery system or technological options (den Hertog, 2010; den Hertog et al., 2010; Miles, 2000; Randhawa & Scerri, 2015). Service innovation creates value for customers, employees, business owners, alliance partners, and communities through new and/or improved service offerings or business models (Ostrom et al., 2010), and it significant to improve organizational performance.

Service innovation consist of six dimensions (den Hertog et al., 2010), it comprise of new service concept, new customer interaction, new value system, new revenue model, new delivery system and technological; 4Ps dimensions (Bessant & Tidd, 2013), it consists of product innovation, process innovation, position innovation, and paradigm innovation; three dimensions (Eisawi, 2012), consists of bank provides reliable and effective remote banking services; products are continually updated, and flexible products that meet customer needs; four dimensions (Lin, 2013) consist of new service development, new technological options, new customer–firm interface and new service delivery system. This research will use four from Six Dimensional Model of Service Innovation from den Hertog because this dimension fit to the condition of Indonesian Islamic Banking.

Human Capital Drivers

The term human capital (HC) refers to the knowledge, skills, and abilities (KSAs) embodied in people (Coff, 2002); or is defined as the KSAs residing with and utilized by individuals (Lepak & Snell, 2002); strategic capabilities possessed by the organization through the necessary skills, talents, applied knowledge to carry out the activities required by the organization (Kaplan & Norton, 2004). While Stewart (1998) emphasizes that the primary purpose of HC is innovation in new products, services, or business processes; Edvinsson and Malone (1996) consider that HC is the “combined knowledge, skill innovativeness and ability of the company's individual employees;” and Dess and Picken (2000) define HC as the collection of each employee's competencies, knowledge, and aptitudes in relation to specific projects, together with the potential to contribute to this pool of HC in terms of knowledge and capabilities by means of personal learning.

Talking about HC, based on the above concept, employees are an invaluable asset for the company. Research by Ritonga (2019) proves that HC affects company performance with the concept of sacrificing something in the present for more profit in the future or what is called human investment theory. Kearns (2005) stated that “Human capital management (HCM) is about creating value through people”. HCM requires capable employees whose competence is above board and are highly proficient in performance of their work. These people introduce creative, innovative ideas and make the organization different from its competitors. HCM is related to employee's commitment, retention, talent management, learning and development of personnel. Chatzkel (2004) states that: “HCM is an integrated effort to manage and develop human capabilities to achieve significantly higher levels of organizational performance”.

Most traditional HR metrics – such as employee turnover rate, average time to fill open positions, and total hours of training provided – don't predict organizational performance. This research will examine the human capital drivers from Bassi & McMurrer (2006) who proposes HCM methodology that can be used to identify and manage process variations in HCM that affect

organizational performance. It's time for HR departments to move beyond their usual focus on activities and process efficiency, such as the number of training courses offered or how long it takes to fill a vacant position. With HCM measurement tools, HR can start gauging how well people are managed and developed throughout the organization. Bassi & McMurrer (2006) has revealed a core set of human capital management drivers that predict performance across a broad array of organizations and operations. The Core Set of HCM Drivers are Leadership Practices, Employee Engagement, Knowledge Accessibility, Workforce optimization, and Learning capacity.

Knowledge Management Capability

The banks that survive will be those that have full and accurate knowledge of their customers' profiles (i.e., needs, wants, demands) as well as an understanding that will allow them to identify macro-environmental trends in a rapidly changing environment. Knowledge is becoming increasingly more useful and important for organizations (Carneiro, 2000), and is now recognized as a resource that is valuable to an organisation's ability to innovate and compete. It exists within the individual employees, and in a composite sense within the organization (Bollinger & Smith, 2001). The importance of knowledge lies in the creativity value that it adds to the organization's assets. To make the knowledge valuable to the organization, it should be managed, and called as knowledge management.

Nowadays, the role of knowledge management (KM) and the processes for managing it has become vital for the survival of organizations. Although KM is an evolving paradigm in management (Gourlay, 2001), it still plays a strategic business function in organizations and influences human capital, teamwork, and overall organizational performance and effectiveness (Feng, Chen, & Liou, 2005; Lee, Lee, & Kang, 2005; Marques & Simon, 2006; Yenyurt, Cavusgil, 2005). Since many organizations don't have KM as a formal division, the term KM capability is arisen. KM capability is defined as an

organizational capability to manage the organization's knowledge with efficacy (efficiently and effectively) (Singh, et.all, 2006); the ability to initiate action from knowledge can originate from a multitude of sources and experiences (Freeze, 2007). In general, the KM capability of a firm is combined with the presence of KM infrastructure/enablers and KM processes (Gold, Malhotra & Segars 2001).

Existing literature presents various dimensions of KMC in organizations, for example, Marquardt (1996) identifies four KMC's components: knowledge acquisition, knowledge creation, knowledge storage, as well as knowledge transfer and application; Zack (1999) demonstrates four elements of KMC, namely knowledge acquisition, refinement, storage and retrieval, as well as presentation; (Gold et al., 2001)Gold et al. (2001) conclude that organizations' should possess two

basic abilities to manage knowledge, namely knowledge infrastructure capability and knowledge process capability; Furthermore, Tiwana (2002) proposes that organizational KMCs include finding, creating new, packaging, assembling, reusing and revalidating knowledge. This paper use three dimensions of Li-An Ho (2008) consist of learning and obtaining, Sharing knowledge, creating and improving; because it summarized all dimensions mentioned before.

Proposed Model

Based on the introduction section and literature review above, this paper proposed an integrated model of Islamic banking performance based on management variables, shown in figure 1 below.

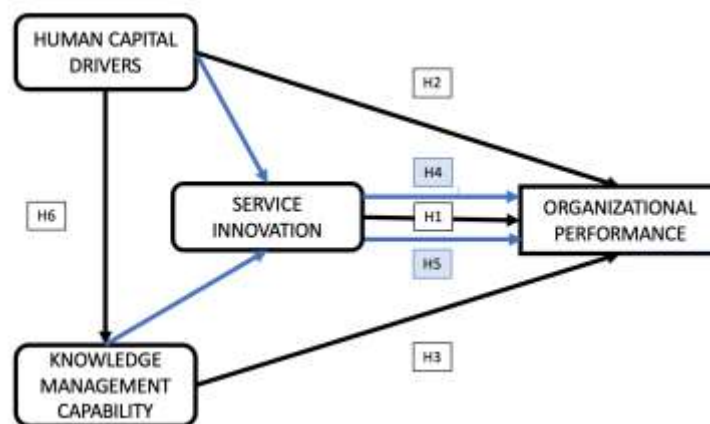


Figure 1. Proposed model Islamic Banking Performance

The proposed model in figure 1 describes that organizational performance variables are directly influenced by service innovation (hypothesis 1), human capital drivers (hypothesis 2), and knowledge management capability (Hypothesis 3). In this model, service innovation also acts as a mediating variable in the influence of the human capital driver variable on organizational performance (hypothesis 4) and the effect of the knowledge management capability variable on organizational performance (hypothesis 5). The model also sees a direct relationship between the human capital driver variable on knowledge management capability (hypothesis 6) and

knowledge management capability as a mediating variable between human capital drivers and organizational performance (hypothesis 7). This proposed model will be tested further using statistical methods.

Method

This research was conducted with the help of a survey approach, using both primary and secondary data. The data were collected from respondents between June 2019 and December 2019. Participants were selected using a

systematic sampling approach, based on banking area. Before analysis, the data screening of 276 employees of Indonesian Islamic Banking was conducted, to prepare and ensure the data will

provide optimum information. The sample information of age, gender, position, and length of work is provided in table 1.

Table 1. Sample's Information

	Characteristics	N	Percentage
Age	20-30	71	25.8%
	30-40	161	58.5%
	40-55	43	15.6%
Gender	Male	114	41.5%
	Female	161	58.5%
Position	Staff	110	40%
	Middle Management	117	42.4%
	Top management	48	17.5%
Length of work	2-7	114	41.5%
	8-15	141	51.15%
	>15	20	7.4%
Islamic Banking	State-owned	118	43%
	Private	65	23%
	Regional-owned	93	34%

The questionnaire delivered using google forms contains four variables. All question items were rated based on a five-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). We measured the human capital drivers according to three dimensions: leadership practices, employee engagement, and workforce optimization. The internal consistency reliability of this seven-item scale was satisfactory ($\alpha = 0.95$). Knowledge management capability was assessed using three facets: learning and obtaining, sharing knowledge, creating, and improving. The internal consistency result for the eight-item scale was satisfactory ($\alpha = 0.96$). We measured the service innovation in four facets: new service concept, new client interface, technological options, new service delivery

system. The internal consistency of the five-item scale was satisfactory ($\alpha = 0.86$).

Statistical analysis

To test the proposed hypotheses, we used the Partial Least Square (PLS)-Structural Equation Model (SEM) method using software Smart PLS Version 3. Our data analysis in this study involved two stages: measurement model/outer model and structural model/inner model. To test the validity and reliability of the model, the measurement model evaluation is carried out, meanwhile the structural model evaluation is used to predict the relationship between latent variables (Hair et al., 2011).

Findings and Discussion

The next step is to measure the outer model, that portrait the relationship between indicators, manifest variables, and latent variables. This study uses the higher-order models or hierarchical component models (HCMs) approach, which

contain two steps of analysis, namely the formative measurement model and the reflective measurement model. The results of the measurement model assessment are shown in Figure 2 outer model below.

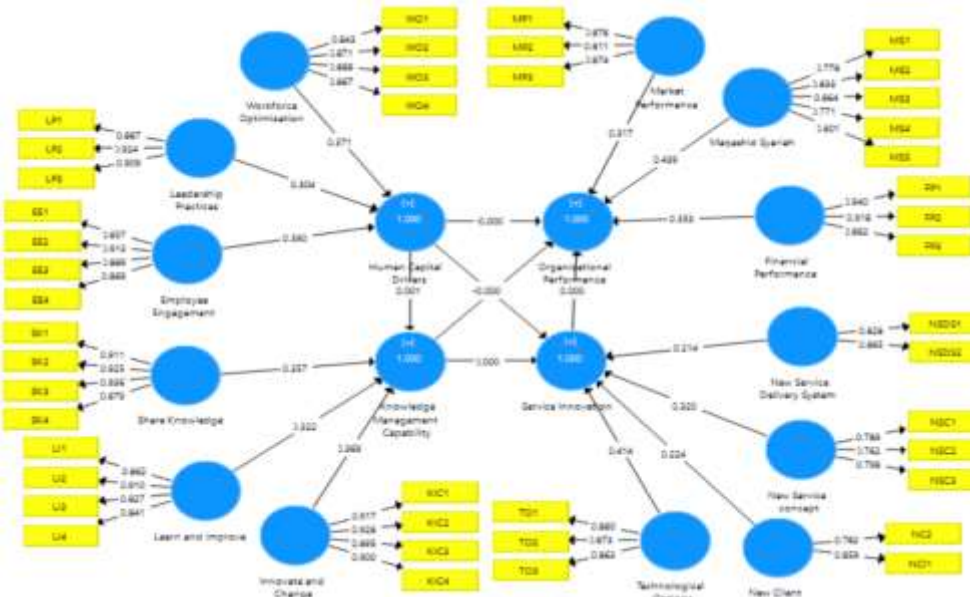


Figure 2. Measurement model/Outer Model

Formative measurement model

Examined by external weight values and their significance (i.e., t-values and p-values). Furthermore, the multi-collinearity of formative indicators is assessed by the variance inflation factor (VIF). The cut-off values used were t-values > 1.96, p-values < 0.05, and VIF < 5 according to the recommendations of Hair et al. (2017). The output shows (see table 4.5); the overall value of outer weights is significant (significant at the level < 0.001), the value of loadings is in the range of 0.748 to 0.966 (> 0.70). Almost all VIF values meet (< 5), only two, namely SK and IC above five

which indicate there is multicollinearity. According to Hair (2014) if the VIF is more than 5 but the loading is above 0.5 then it is still included in the model.

Table 2. Formative measurement model

Constructs	Dimension	Loading s (>0,5)	Outer Weights	VIF (<5)	t-value (>1.96)	p-value
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						(0,05<)
Organizational Performance	Market Performance (MP)	0.881	0.248	2.847	0.321	0,00
	Financial Performance (FP)	0.873	0.338	2.417	0.351	0,00
	Maqashid Sharia (MS)	0.931	0.523	2.326	0.440	0,00
Service Innovation	New Service Concept (NSC)	0.845	0.274	2.189	0.317	0,00
	New Client Interface (NC)	0.791	0.148	2.111	0.226	0,00
	New service delivery system (NSDS)	0.748	0.180	1.780	0.219	0,00
	Technology Option (TO)	0.940	0.549	2.388	0.410	0,00
Knowledge Management Capability	Learning and Improve (LI)	0.954	0.431	4.125	0.324	0,00
	Share knowledge (SK)	0.934	0.157	6.011	0.354	0,00
	Innovate & Change (IC)	0.966	0.458	6.208	0.368	0,00
Human Capital Drivers	Leadership Practices (LP)	0.928	0.322	3.844	0.303	0,00
	Employee Engagement (EE)	0.939	0.312	4.440	0.391	0,00
	Workforce Optimization (WO)	0.945	0.432	3.509	0.371	0,00

Reflective measurement model

The first test was checked with the value of Cronbach's alpha (α) and composite reliability

(CR). The output shows that the value is in the range of 0.729 to 0.931, while CR is in the range of 0.811 to 0.952. These results confirmed the reliability of the internal consistency of the

constructs (α and CR > 0.70), as recommended by Hair et al. (2017). The next test refers to convergent and discriminant validity, examined using the outer loadings and average variance extracted (AVE) values. While discriminant validity is checked by looking at the value of the Heterotrait-Monotrait (HTMT) ratio according to the recommendations of Henseler et al. (2015). The output shows the overall outer loading value is higher than 0.70 while the AVE value is in the range of 0.596 to 0.830 (> 0.50). These results indicate a convergent validity among reflective

constructs (Hair et al., 2017). While the output of HTMT shows that between human capital drivers and knowledge management capability, knowledge management capability with service innovation as well as service innovation and organizational performance are 0.260, 0.471, and 0.099, respectively, which is lower than the maximum threshold value of 0.90 (Hair et al., 2017). Thus, all reflective constructs exhibit discriminant validity.

Table 3. Reflective Measurement Evaluation

Dimension	Indicators	Loadings (>0,50)	α (>0,70)	rho_A (0,90)	CR (>0,70)	AVE (>0,50)
Market performance (MP)	Literacy (MP1)	0.871	0.814	0.915	0.890	0.729
	Inclusion (MP2)	0.816				
	Market share (MP3)	0.874				
Financial performance (FP)	ROA (FP1)	0.940	0.884	0.992	0.929	0.813
	CAR (FP2)	0.917				
	NPF (FP3)	0.846				
Maqashid sharia (MS)	Educating the individual1 (MS1)	0.783	0.827	0.939	0.879	0.596
	Educating the individual2 (MS2)	0.837				
	Establishing Justice (MS3)	0.851				
	Welfare1 (MS4)	0.760				
	Welfare2 (MS5)	0.606				
New Service concept (NSC)	New group of target market (NSC1)	0.790	0.788	0.993	0.827	0.614
	New formulas (NSC2)	0.764				
	New locations (NSC3)	0.797				
	New interfaces (NC1)	0.790	0.738	0.949	0.811	0.682

New client interface (NC)	Personalization (NC2)	0.861				
New service delivery system	Extra organizational changes (NSDS1)	0.837	0.729	0.934	0.843	0.729
	New skills to new retailing service (NSDS2)	0.870				
Technological options (TO)	New ICT system for optimization of logistics	0.858	0.831	0.831	0.899	0.748
	New ICT system for consumer profiling (TO2)	0.871				
	New ICT system for e-commerce app (TO3)	0.865				
Leadership practices (LP)	Leadership practices (LP)	0.879	0.887	0.890	0.930	0.816
	Inclusivity (LP2)	0.921				
	System (LP3)	0.909				
Employee engagement (EE)	Job Design (EE1)	0.863	0.908	0.910	0.936	0.784
	Job Commitment (EE2)	0.915				
	Time (EE3)	0.894				
	System (EE4)	0.869				
Workforce optimization (WO)	Process (WO1)	0.836	0.883	0.884	0.919	0.740
	Accountability (WO2)	0.868				
	Hiring Decision (WO3)	0.867				
	System (WO4)	0.868				
Learning and Improve (LI)	Governance (LI1)	0.859	0.887	0.888	0.922	0.747
	Process (LI2)	0.913				
	People (LI3)	0.838				
	Infrastructures (LI4)	0.846				
Sharing knowledge (SK)	Governance (SK1)	0.911	0.931	0.933	0.951	0.830
	Process (SK2)	0.927				
	People (SK3)	0.930				
	Infrastructures (SK4)	0.875				

Innovate and change (IC)	Governance (IC1)	0.919	0.932	0.933	0.952	0.832
	Process (IC2)	0.928				
	People (IC3)	0.898				
	Infrastructures (IC4)	0.902				

Structural model assessment (inner model)

The next step is to measure the inner model, namely the relationship endogenous and

exogenous variables. The results of the structural model assessment are generally found in Figure 3 below.

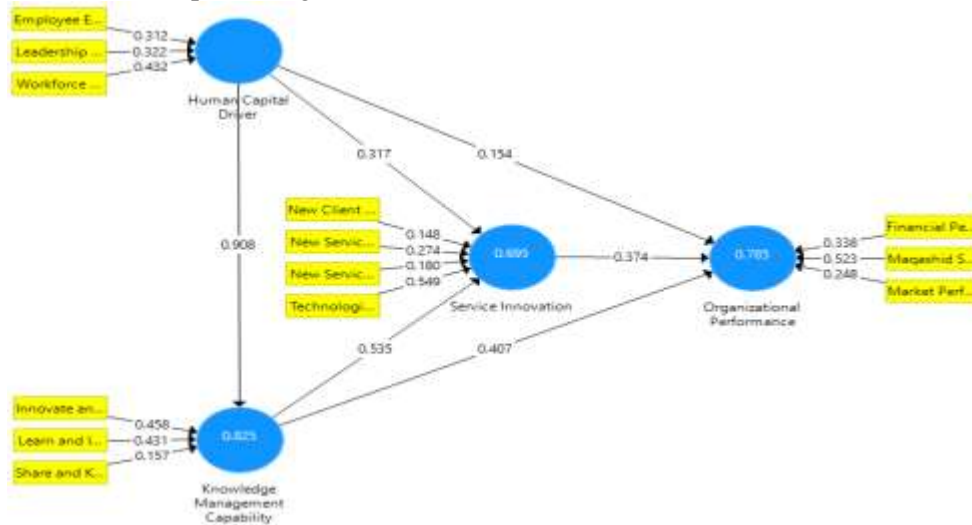


Figure 3. Structural model assessment

Goodness Fit Model Evaluation

Standardized root means square residual (SRMR) was applied to verify the suitability of the model. The SRMR output (table 4.7) shows the expected results (saturated model = 0.038 and estimated model = 0.038), these results are following the threshold < 0.080 (Gao et al, 2018).

Furthermore, the VIF output (table 5) shows a range of 1,310 to 3,876 which is below the threshold 5 (Hair et al., 2017). The VIF value justifies that this study does not indicate multicollinearity symptoms. In testing the hypothesis, this study assessed the level of significance using the bootstrap 5,000 approach (resampling) bias-corrected confidence interval with a p-value for a two-tailed significance (* p: 0.05, ** p: 0.01, *** p: 0.001).

Table 4. Multicollinearity

	Human Capital Driver	Knowledge Management Capability	Organizational Performance	Service Innovation	Multicollinearity?
Human Capital Driver		1.000	3.992	3.711	No

Knowledge Management Capability			4.146	3.711	No
Organizational Performance					No
Service Innovation			2.313		No

Hypothesis Testing and Coefficient Determination (R^2)

This study has eight hypotheses, consist of six direct effect path correlation and two direct effect path correlation. The results of the hypothesis testing show that seven hypotheses are accepted, and one hypothesis rejected. The hypothesis that accepted are service innovation has a significant positive effect on Organizational Performance (t-values = 5.582, p-values = < 0.001); knowledge management capability has a significant positive effect on Organizational Performance (t-values = 4.433, p-values = < 0.001); human capital drivers

have a significant positive effect on knowledge management capability (t-values = 51.966, p-values = < 0.01); human capital drivers have a significant positive effect on service innovation (t-values = 2.815, p-values = < 0.05), knowledge management capability significant positive effect on service innovation (t-values = 4.873, p-values = < 0.001)human capital drivers have no significant positive effect on Organizational Performance (t-values = 1.714, p-values = < 0.001).

Table 5. Direct effect path correlation

Hypothesis		β	T Statistics (>1.96)	P Values (<0,05)	Significance?
H1	Service Innovation -> Organizational Performance	0.374	5.582	0.000	Yes
H2	Human Capital Driver -> Organizational Performance	0.154	1.714	0.087	No
H3	Knowledge Management Capability -> Organizational Performance	0.407	4.433	0.000	Yes
H4	Human Capital Driver -> Service Innovation	0.317	2.815	0.005	Yes

H5	Knowledge Management Capability -> Service Innovation	0.53 5	4.873	0.000	Yes
H6	Human Capital Driver -> Knowledge Management Capability	0.90 8	51.966	0.000	Yes

While the results of the mediating effect analysis (see table 7) show; knowledge management capability significantly mediates the relationship between human capital drivers and organizational performance (t-values = 4.504, p-values = > 0.01), service innovation significantly mediates the

relationship between human capital drivers and organizational performance (t-values = 2.347, p-values = < 0.05), service innovation significantly mediates the relationship between knowledge management capability and organizational performance (t-values = 3.763, p-values = < 0.01).

Table 6 Indirect effect path correlation

Hypothesis		β	T Statistics (>1.96)	P Values (<0,05)	Significance?
H7	Human Capital Driver -> Service Innovation -> Organizational Performance	0.119	2.347	0.019	Yes
H8	Knowledge Management Capability -> Service Innovation -> Organizational Performance	0.200	3.763	0.000	Yes

The results of the analysis of the coefficient determination of the knowledge management capability construct showed a high value ($R^2 = 0.825$, R^2 adjusted = 0.824). It can be concluded that 82.5 percent of the variation in knowledge management capability is explained by the human capital driver's variable. The service innovation construct shows a moderate to a high value ($R^2 = 0.695$, R^2 adjusted = 0.693), which means that 69.5 percent of service innovation can be explained by the variable knowledge management capability and human capital drivers. The organizational performance construct shows a high value ($R^2 = 0.785$, R^2 adjusted = 0.782), which means that 78.5 percent of organizational performance can be

explained by service innovation, knowledge management capability, and human capital driver variables.

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 PLS-predict approach with a focus on the organizational performance construct as the main target. The output shows the predictive value of Q^2 is greater than 0, while the root means squared error

(RMSE) and mean absolute error (MAE) indicators of the PLS-SEM model have a lower value than the naive linear model. It can be concluded that the model in this study has high predictive power.

The results of the first hypothesis test show that service innovation has a direct influence on Islamic banking performance. This finding highlights that high score on aspects of service innovation will increase customer engagement (Tether, 2013), which will increase the potential to expand the market (De Jong et al., 2015), which in turn will improve organizational performance by increasing the sales revenues (Kubeczko et al., 2006; Mansury & Love, 2008) and enhance the profitability (Matear et al., 2004). The impact of service innovation on organizational performance is $R^2 = 0.695$ (moderate to high); this indicates that increasing service innovation will improve organizational performance. Service innovation is essential in Islamic banks because of the strict rules of Sharia banking products/services and the challenges of established conventional products. Innovation in products, processes, and services contributes to the long-term growth and success of the organization (Yeh-Yun Lin & Yi-Ching Chen, 2007; Zhou & Shalley, 2008). Innovation and creativity are also essential to win the increasingly tough competition in the changing environment (Chow, 2017). An innovative organization is proven to maintain a competitive advantage (Johannessen & Skaalsvik, 2015; Ghosh, 2015) because it can respond faster to environmental changes (Do, Yeh, & Madsen, 2016).

The second hypothesis, which stated a significant positive relationship between human capital drivers and organizational performance, is not proven. This result contradicts many previous studies which state that the two variables are related (Basse et al., 2015, 2017; Bhattacharya et al., 2005; Azlina et al., 2017; Jamal & Saif, 2011; Hajiha & Hansanloo, 2009). These results indicate that in the context of Islamic banks, human capital drivers cannot directly affect organizational performance, but through the intermediary of the mediator variable, namely innovation as in the fourth hypothesis (Perez et al., 2012; Swanson and Holton, 2011; Damanpour, 1994; Bozbura, 2017). Human capital in a real sense is an invisible asset

[Pennings, 1999] so it is important to development human capital capabilities and managed through HCM processes to increase innovation. Human capital is drivers-catalyst to increase service innovation first, then service innovation will increase organizational performance

The third hypothesis stated that knowledge management capability affects positively on organizational performance. Islamic banks have characteristics in the form of different vision and operational system from conventional banks. This unique knowledge must be learned and obtained, shared, and further created and improved, which are the indicators of knowledge management capability. Knowledge management capability influences organizational performance through the capacity to create new knowledge, build on it, and capture a high proportion of subsequent spin-offs (Bogner & Bansal, 2007, Vera and Crossan, 2013), a particular category of knowledge, which is valuable, rare, inimitable, and non-substitutable will increase organizational performance (Darroch, 2005, Barney, 2001) where Islamic banks very much need this. The impact of knowledge management capability on organizational performance is $R^2 = 0.825$ (high); this indicates that if Islamic bank will improve organizational performance, should increase the knowledge management capability.

The seventh hypothesis shows that service innovation acts as a mediator between variable human capital drivers on organizational performance. This finding support previous research found that innovation mediates the relationship between human capital and organizational performance (Sarwar et al., 2016; Muafi et.al, 2020; Riana, et.al, 2020). Human capital creates and stores knowledge (Smith et al., 2005) and has the capacity to absorb, organize, and create knowledge as a source of innovation. From this proposition, we can conclude that human capital has a pivotal role in creating service innovations. Meanwhile, the innovation of products and services is a significant organizational performance determinant (Damanpour, 1991).

The eighth hypothesis stated that service innovation is a mediator between variable knowledge management capability and

Organizational Performance. These findings support previous research asserted that effective KM is mediated by innovation to increase organizational performance (Darroch, 2003; Gold et al., 2001; Han et al., 1998) because the impact of KM mainly relates to the ability of organizations to innovate their products and services, which later will increase on organizational performance (Jyoti et al., 2011). In the context of Islamic banking, this is a relevant finding because, from the case study of three banks, the respondents seek to improve service innovation in various ways but do not develop

knowledge management, so it becomes less effective.

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 6 explains that the overall output f^2 is in the range of 0.018 to 4.718.

Table 6. Effect size

	Human Capital Driver	Knowledge Management Capability	Organizational Performance	Service Innovation
Human Capital Driver		4.718 (large)	0.018 (N/A)	0.058 (large)
Knowledge Management Capability			0.115 (small)	0.164 (medium)
Organizational Performance				
Service Innovation			0.198 (medium)	

Furthermore, 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 with the dependent variable (Hair et al., 2017). The Q^2 value of the organizational performance variable is 0.620, 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.

The analysis of effect size and predictive relevance indicates that the proposed model in this paper has predictive capabilities. The effect size in table 6 shows that if a certain variable is omitted from the model, it has a small, medium, or large impact. For example, service innovation on organizational performance has a medium effect; human capital driver impact on knowledge

management capability is large, and a small impact on knowledge management capability.

Conclusion

Based on the results of the analysis and discussion that has been done previously, it can be concluded that all variable independence has a significant effect on Islamic Banking performance, except for the Human Capital driver variable. Together, knowledge management capability and service innovation have a significant effect on Indonesia's Islamic Banking sector. As a new component, Islamic Banking is positioned as a late-entry concept in the financial industry. Its unique concept's characteristics as an idea that brings religious values into business make the idea of "Islamic Banking performance" a new point of focus, requiring knowledge and high-level

innovation necessary for any emerging market. The study, therefore, recommends more studies regarding innovations in knowledge-creating and knowledge management within this newly formulated industry.

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