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## Determinants of Business Models Innovation of Islamic Bank in Indonesia

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**Abstract:**

**Purpose:** This study analyzes the effect of dynamic capabilities, customer knowledge management, and religiosity each as a determinant that drives all components and systems in an organization to run business model innovations, to improve business performance to be healthy and to grow sustainably.

**Design/Methodology/Approach:** The quantitative, descriptive and explanatory analysis was taken by using the SEM-PLS method. Research data were collected through questionnaires with participants of this study being senior managers of Indonesia Islamic banks.

**Findings:** The results show that religiosity variable together with the Customer Knowledge Management and Dynamic Capability variables simultaneously and partially through business model innovations are proved to influence business performance. Religiosity variables are positive and significant determinants of business model innovation. Religiosity, Customer Knowledge Management, and Dynamic Capability do not directly influence business performance.

**Practical Implications:** The results show that the religiosity variable, alongside Customer Knowledge Management and Dynamic Capability variables simultaneously through business model innovations influences business performance and they can be used by the top management to improve performance.

**Originality/Value:** The study implies a recommendation for Islamic banks to allocate enough resources and invest in improving learning capabilities, building tools and methodologies to find out customer needs in depth.

**Keywords:** Business model innovation, Islamic Banks, dynamic capabilities, customer knowledge management, religiosity.

**JEL Codes:** G21, L25, M14.

**Paper type:** Research article.

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## 1. Introduction

The ability of companies to compete in rapidly changing environments requires expertise in understanding and growing opportunities to design innovation (Afuah & Tucci, 2003), escalating responses to disruptions (Doz & Kosonen, 2010) and increasing strength to external risks (Demil & Lecocq, 2010). This ability should be demonstrated in constantly changing Business Models (BM) if companies want to remain aggressive in a complex world and reach a sustainable value creation (Doz & Kosonen, 2010; Teece, 2010). When opportunities or threats exist, it is a compulsory for companies to continue developing and strengthening their capabilities and revising their business models effectively and in a timely manner (DaSilva & Trkman, 2014). Therefore, Business Model Innovation (BMI) acted as a prerequisite for companies to be able to maintain simultaneous competitive advantages.

Although, there is no exact meaning of business models, almost all researchers, scientists and people from industry unanimously agree on the importance, application, and relevance of the BMI concept (Amit and Zott, 2012; Bashir *et al.*, 2016). BMI constitutes the process of searching for new ways in performing business that result in reconfiguration of value creation and acquisition mechanism (Björkdahl and Holmén, 2013; Massa and Tucci, 2014), and furthermore BMI is a new system of activities including innovation, value formation and the value capturing the structure of corporate and its alliances (Bouncken and Fredrich, 2016). Richter (2013) argues with the meaning of BMI as the development of new organizational forms for value creation, delivery and acquisition. Transformational changes in established firms are what BMI represents for (Demil and Lecoq, 2010).

One of the most critical issues and the primary theme of BMI research is BMI's antecedents. The initial theme in BMI is seen as a phenomenon and mostly focuses on organizations' activities to redesign their models of businesses. This activity refers to the work done by people, communities, or companies to achieve BMI (Andreini, 2017). There are 2 (two) sub-themes of research that are often the focus of the BMI study. From the market-based view, market analysis (Eriksson *et al.*, 2008), customer knowledge management (Wu *et al.*, 2013), marketing channels (Cao, 2014), and marketing efforts (Brettel *et al.*, 2012) as parts of marketing activity research tend to emphasize on the importance of the success of BMI in understanding the market (e.g. practices of customer knowledge or consumer-focused).

However, not only due to external inputs, but changes on BMs can also come from internal drivers as a result of a strategic or resource-based nature. BMI demands companies to build a distinctive set of managerial skills (Berghman *et al.*, 2006; Demil and Lecog, 2010). BMI can also be seen as a distinctively dynamic capability (Mezger, 2014). Similar to the resource-based view, dynamic capabilities theory sees a BM as a form designed from distinct resources and competencies (Amit and Zott 2001; Morris *et al.*, 2005; George and Bock 2011), but in the latter approach

dynamic capabilities is seen differently that is to govern evolutionary fitness and help shape the business environment itself (Teece, 2010). Thus, dynamic capabilities are regarded as internal resources capable to change a BM (Andreini, 2017).

However, our understanding of how companies adapt their models of business in response to outside threats and chances of opportunities is very shallow. It could cause a problem since a contingency in perspective would suggest the companies position between the firm's business model and its environment, which might influence its profitability (Saebi, Lien & Foss, 2016). A systematic review of BMIs research results shows that literature problems lie in constructing clarity and gaps concerning the identification of antecedent conditions, contingencies, and outcomes (Foss and Saebi, 2017).

The literature review results show that religiosity variables have not been included as antecedents of BMI. Some of the external variables previously examined are culture (Hofstede, 2001; Lueg *et al.*, 2013; Malmrose *et al.*, 2014, Gao, 2013), cultural context (Dalby *et al.*, 2014), sustainability (Birkin *et al.*, 2009; Kiron *et al.*, 2013a and 2013b; Mokhlesian and Holmén, 2012) and CSR (Dickson *et al.*, 2015), are determined as the emergence of new BMs. This lies the problem since religious motives; religious, environmental and cultural values influence customer choices and preferences in making financial and investment decisions (Mansour and Jlassi, 2014; Usman *et al.*, 2017).

This study is an effort to fill in the gap by identifying critical conceptual, theoretical, and empirical gaps in BMI antecedent. Focusing on exploring the antecedents of BMI and on contributing to research related to BMI. The novelty of the research model compared to others in BMI research is to include religiosity variables. It emphasizes on several independent variables such as dynamic capabilities, customer knowledge management, and religiosity, and a dependent variable such as performance variable, and BMI is seen as an intermediate model, putting a focus on research at the business unit level of Islamic banking in Indonesia.

## **2. Literature Review**

Business Unit Performance is a concept used to assess achievement of the activities of a business unit. Wheelan & Hunger (2012) states that "*performance is the end result of activities; it includes the outcome of the process in strategic management.*" The strategic management practice is justified in terms of its capability to improve the performance of an organization, that is typically measured in terms of profits and return on investment. This definition implies that performance is the result of strategic management. Many results of empirical research examine the factors that determine the commercial banks' performance (Al-Tamimi, 2007; Chirwa, 2003).

This strategy envisions the positioning competitors, with ideas, the future direction (Andrews, 1971; Ansoff, 1965; Chandler, 1962; Porter, 1998). Here, the concept that

the BM has taken and described is the logic of corporate value creation with a holistic description of the corporate activity in a combined form (Osterwalder *et al.*, 2005). BM means a consistent strategy implementation (Dahan *et al.*, 2010). The BM also can be regarded as a link between strategy and implementation of operations. Teece's (2010) argument says that business models are more general than business strategies; therefore, a combination of both strategies and analysis of the BM is needed in ensuring competitive advantage as a result from designing new BM. Every successful company must have implemented effective BM. By identifying the overall supporting components of the BM, we can understand how BMs can build value propositions to generate profits using the required processes and resources (Johnson *et al.*, 2008). A business model approach can be used to analyze the competitive structure and make strategic innovation decisions (Hamel, 2000; Wahyudi *et al.*, 2019; Rupeika-Apoga *et al.*, 2018).

## 2.1 Business Model Innovation

The benefits associated with BMI undoubtedly outweigh other forms of innovations (Lindgardt *et al.*, 2009; Schallmo and Brecht, 2010; Snihur and Zott, 2013). Opportunities for differentiation are no longer provided by product innovations. Low-wage countries acquire shorter life cycles, shorter periods of imitation and increasing competition causing new and sustained competitive advantage to be required. Originally unique business models are the start of present new business opportunities. A company's job is to find how to create added value for customers and to benefit from a portion of this surplus value (Matzler *et al.*, 2013).

Due to its importance for corporate strategy and performance, the business model has become a subject of innovation (Spieth *et al.*, 2013). As a matter of fact, in the accelerating environmental dynamics context, firms start to be aware that even a long time established business model cannot guarantee a successful performance (Chesbrough, 2007; Desyllas and Sako, 2013). On the contrary, managers in existing firms have to reassess established business models (Chesbrough, 2010) constantly – either in response to or proactively anticipate external changes. As a result, substantially BMI achieves higher than established firm capabilities and continues to organize product, service or technology innovation as a routine (Lindgardt *et al.*, 2009; Zott *et al.*, 2011).

Amit and Zott (2012) describe that BMI can be constituted of new activities, novel ways of connecting activities, or re-shuffling parties that do the activities, to obtain a value for stakeholders. Researchers also agree that BMI can occur even by replacing even a single element or component of a business model (Lindgardt *et al.*, 2009; Demil and Lecocq, 2010). As told by Witell and Lofgren (2013) there are three levels of Business Model Innovation; changes in business models, incremental BMI and radical BMI.

One of the most related questions, for practice especially, is how firms create conducive situations for BMI process (Foss and Saebi, 2015). Current research gives new insights for BMI's key elements and processes as well as its impact on the performance of the firm (Kim and Min, 2015). However, taking some qualitative studies as exceptions (Doz and Kosonen, 2010), there is only a small empirical research that examines factors as influencing drivers to the success of BMI initiatives in firms. The literature on innovation management advises us that organizational culture is a vital antecedent of the success of innovation (Büschgens, Bausch & Balkin, 2013).

## **2.2 Dynamic Capability**

Dynamic Capability (KD) is a field of research in the search for understanding why a company could outperform others. Teece *et al.* (1997) suggest a framework of how each company in entrepreneurship could outperform other companies by managing its different resources. Strategically agile companies can indeed focus and maintain their momentum following the same goals whereas remaining flexible to accelerate and cost-effectively respond opportunities to innovate (Di Minin *et al.*, 2014). Winter stated that (2003) dynamic capabilities in a company enable them to operate, modify, extend and create standard capabilities.

Research in India's banking industry showed that dynamic capability factor is an essential driver to the performance of banks. Learning, integration, and alliance of dynamic management capabilities directly influence banks' financial and nonfinancial performance. The banking industry is not an exception to change (Singh and Rao, 2017). This finding reveals a close positive relationship between the dynamic capabilities and its innovation performance in the small and medium-sized technical enterprises operating in an unstable environment (Grunbaum and Stenger, 2013). Dynamic capabilities that are different have different impacts depending on the competitive (Makkonen *et al.*, 2014). Nashiruddin's research shows that environmental turbulence and dynamic capabilities have a positive and significant impact on competitive advantage (Nashiruddin, 2015). It demonstrates that BMI can be seen as a concept for distinct dynamic capability. This capability can be broken down into a company's capability to recognize business model opportunities, grab them through developing valuable and unique business models and accordingly redesign the firms' resources and competencies. Despite the fact, all three dimension demands firms to combine external knowledge (on technologies, customer and business model) and existing knowledge in order to derive new business models (Mezger, 2014).

## **2.3 Customer Knowledge Management**

Market-based view and resource-based view theories are presented by Customer Knowledge Management (CKM) and Dynamic Capability (KD) as other antecedents variables to be discussed in this study.

CKM is regarded as a novel organizational approach to capture, share and use information, knowledge experience and ideas connected with customers. By involving customers in corporate processes, CKM connects the external environment with that of the internal (Chen, 2008) as well as transfers and shares not only between consumers and within the company but also between costumers and companies (Zhang, 2011).

Companies that have more knowledge about customers will have a better capability in identifying opportunities and are more likely to have a better performance (Lee *et al.*, 2011). Having the skill to use and manage customer knowledge on an ongoing basis is very important for outstanding performance. Therefore, companies need to continually update their knowledge according to their customer information (Claycomb *et al.*, 2005; Tuominen *et al.*, 2004). According to Mukherji (2012), customer participation and absorbing this knowledge are essential for the ability to innovate. Therefore, using CKM in engaging customers in the process of innovation and make use of their knowledge and ideas is very important for the company (Auh *et al.*, 2007; Yi *et al.*, 2011). Companies that seek better performance must manage their customers' knowledge effectively (Lee *et al.*, 2011; Ngo and O'Casey, 2012).

In the banking world, consumers' knowledge is impacting the speed and quality of innovation as well as operational and financial performances. Our study also demonstrated different levels of knowledge about customers and knowledge for customers on various dimensions of innovation and companies performance. Using the flow of customer knowledge, firms will be more aware of threats from external environments, and new changes in costumers' needs, therefore, will then be more innovative and perform better (Taherparvar, 2014).

## 2.4 Religiosity

As told by Warren Buffett (2011), "*Culture, more than rule books, determines how an organization behaves.*" Recent growing research examines the effects of culture on behaviors of banks (Fahlenbrach *et al.*, 2012; Adhikari and Agrawal 2016; Kanagaretnam *et al.*, 2015). Religiosity, being highly persistent over time, appears to be a fundamental attribute to the culture. Furthermore, morality, a key to religiosity attribute, is at the heart of bank culture's regulators. Religiosity is identified with lower risk in public banks, while the research by Cantrell and Yust (2018) state that religiosity always has a close relationship with banks' risks and has an impact on bank performance in an extremely good or bad performance. Their research confirms that private banks are especially unique, and religiosity can have a significant, reliable effect on bank outcomes.

The results of this research showed that the Islamic working ethics values in the organization influence corporate innovation (Farrukh, Butt & Mansori, 2015; Abbasi *et al.*, 2012; Awan and Akram, 2012; Kumar and Rose, 2010). Abbasi *et al.* (2012) have reported that the Islamic working ethic values integrated into the organizational

culture of the Islamic banking itself helps organizations to achieve better results primarily from the side of their human resources. Islamic working ethics values are instilled in managers acting as role models for their workers to encourage more efforts, newness, trust, loyalty to tasks and healthy relationships between employees. In the proposal from Jalil *et al.* (2010), several qualities such as integrity, solidarity, honesty, commitment, and responsiveness can be connected and reinforced by sharing the practice of Islamic ethics in all over the world. Also, several current research has shown that in the relationship between Islamic working ethics and innovations in Islamic organizations (Abbasi *et al.*, 2012) including public sector organizations by Awan and Akram (2012) the ability of innovation that is significantly and positively influenced by Islamic working ethics.

In many research, it is mentioned that what determines Islamic bank customers in choosing Islamic banks is religiosity if the research is conducted in Islamic banks and shows a substantial impact on the influence of religion on Muslim customers in using Islamic banks (Gait & Worthington, 2015; Abbas *et al.*, 2003). Religious motivation is a factor which has the highest rating that was positively determining the use of Islamic banking products even though their knowledge of Islamic banking products tends to be limited. The company's reputation and estimated level of profits are not aspects that affect customers in choosing a bank but are dominated by religious preferences. Belief in Muslim behavior of Muslim consumers in countries is a factor that determines the choice of insurance products (Souiden & Jabeur, 2015). Banking surveys conducted in Indonesia also reveal that religious norms have an essential part in the relations between religiosity and the selection of Islamic banks (Usman *et al.*, 2017).

Customer research on Islamic and conventional banks in Malaysia shows that customer satisfaction is significantly related to the image, the image is influenced significantly by trust, and trust is influenced by consumer loyalty (from the sharia and conventional segments). These research findings show that Muslim customers prefer Islamic banks because they believe that Islamic banks comply with sharia provisions (Amin *et al.*, 2013). According to McDaniel and Burnett (1990), religiosity is defined as a level of faith in God that is followed by the principles of believing and practicing. Religiosity is seen as a personal constituent that is found in human character (Hunt and Vitell, 1986), and it has many impacts on behavior and attitudes (Weaver and Agle, 2002; Vitell *et al.*, 2005; Abou-Youssef, 2015). In contrast to the previous studies of Islamic banking which focused on the influence of customer religiosity on the preference for choosing Islamic banks, the subject of this paper was on the impact of religiosity on BMI.

## **2.5 Business Performance**

Business Unit Performance is a concept used to assess the performance of a business unit activity. Wheelan & Hunger (2012) define it as the end result of activities that include the result of the process of strategic management. The practice of strategic

management is defined in terms of its ability to improve the organization's performance, that is usually measured in terms of profits and return on investment. This definition implies the final result of strategic management is performance.

Many empirical types of research analyze factors that determine the performance of commercial banks (Al-Tamimi 2005; Chirwa, 2003). Kosmidou *et al.* (2006) studies the effectiveness and performance of England banks by using multiple types of methods including asset quality, capital adequacy, liquidity, efficiency, and profitability. In 1990, Kaplan and Norton introduced the concept of Balance Score Card (BSC) which able to measure how far the success of vision, mission, objective and strategy implementation of the firm. BSC is a measure of Business Unit Performance as a whole. So the dimension used in measuring business unit performance used adaptation from Kaplan & Norton (2004) which is (1) Performance in Financial (2) Costumer Performance (3) Internal Process Performance, and (4) Research and Development Performance. In regards to how the business model innovation affecting the business performance in general, this paper emphasizes on economic performance (Demil and Lecocq, 2010; Kiron *et al.*, 2013a and 2013b; Nair *et al.*, 2012) with a primary focus on different profit measures such as profit margin and market share growth (Nair *et al.*, 2012) or after-tax income and operation margin (Demil and Lecocq, 2010)

This research also includes the analysis by Zott and Amit (2007) who study the effect of a business model positioned in the center of the firm's equity market value. As a whole, Business Model Innovation research on real economic performance which borne consistent results shows a positive effect on Business Model Innovation. Apart from the firm's profit, the effect of Business Model Innovation in Islamic Banking Performance is also measured by customer satisfaction (Huang *et al.*, 2012).

### 3. Methodology

This research focuses on analyzing simultaneously and partially the influence of Dynamic Capability, Customer Knowledge Management and Religiosity through Business Model Innovation on Business Performance in Indonesia Islamic Banking. This study was conducted to examine the relationship between banking influence and variable that is measured earlier by applying descriptive and verification technique, in order to analyze the impact and influence external and internal variables.

#### *i) Sample:*

The unit of analysis of this study is done by conducting a survey from managerial level employees to directors in Islamic banking companies in Indonesia with a sample survey of 213 from the total of 1,972 workers.

#### *ii) Data Analysis Process:*

The analysis is designed using the hypothesis test that figures the relationship between the variables of the study using the variety based Partial Least Square (PLS) analysis technique since the results of the questionnaire data are not normally distributed. Partial Least Square (PLS) is an analytical model developed from a structural model of Structural Equation Modeling (SEM) based on variants which can simultaneously carry out measurement tests as well as testing the systemic models. The measurement of the model is used to test its reliability and validity, on the other hand, the causality is testing by using a structural model, which also test the prediction models using hypotheses techniques.

This study focuses on the effect of Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y) on Business Performance (Z) in Islamic banking in Indonesia which is analyzed based on research data using Structural Equation Modeling Analysis (SEM) with the Smart PLS software tool.

Dynamic Capability (X1) is measured with 4 indicators, namely; Sensing Capability (X1.1), Learning Capability (X1.2), Integration Capability (X1.3), and Coordinating Capability (X1.4). Customer Knowledge Management (X2) is measured with 3 indicators, namely; Information from the Customer (X2.1), Information About the Customer (X2.2), and Information for the Customer (X2.3). Religiosity (X3) is measured with 3 indicators, namely; Innovation of Value Creation (Y1), New Innovation in Proposition (Y2), and Catching Value Innovation (Y3). Business Performance (Z) is measured with 4 indicators, namely; Financially Perspective (Z1), Consumer Perspective (Z2), Perspective of Internal Process (Z3), and Perspective in learning (Z4).

### **3.1 Hypotheses**

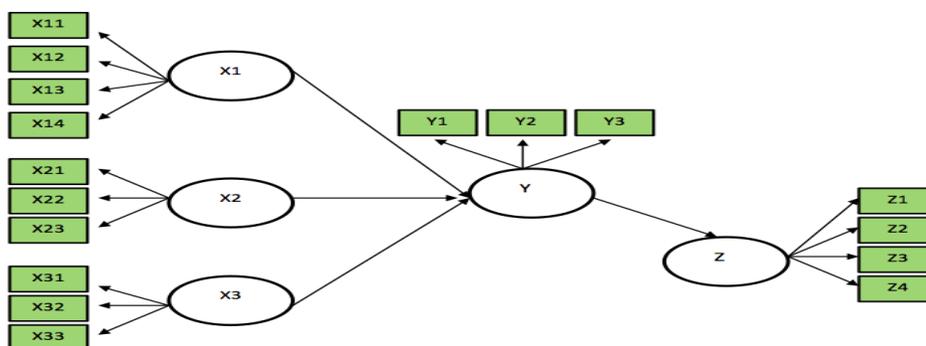
It can be hypothesized based on the structural concept of the above model, as follows:

1. There is the influence of Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y).
2. There is the effect of Dynamic Capability (X1), Customer Knowledge Management (X2), Religiosity (X3) and Business Model Innovation (Y) on Business Performance (Z).
3. After having the result of each latent variables, both in exogenous and endogenous variables of latent, the testing of significant latent variables testing can be done using t value on the structural model of the influence of Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y) on Business Performance (Z) in Islamic banking in Indonesia, where the significance of testing influences Dynamic Capability (X1) measured from 4 indicators of Sensing Capability (X1.1), Learning Capability (X1.2), Integration Capability (X1.3), and Coordinating Capability (X1.4); Customer Knowledge Management (X2)

measured from 3 indicators, namely; Information from the Customer (X2.1), Information About the Customer (X2.2), and Information for the Customer (X2.3); and Religiosity (X3) measured from 3 indicators of Religious Trust (X3.1), Consequences of Religion (X3.2), and Increased Religion (X3.3); on Business Model Innovation (Y) measured from 3 indicators of Value in Creation and Innovation (Y1), New Innovation in Proposition (Y2), and Value Catching in Innovation (Y3); on Business Performance (Z) measured from 4 indicators of Perspective in Financial (Z1), Perspective of Customer (Z2), Process in Internal Perspective (Z3), and Perspective in Learning (Z4); for t table with respondents in number (N) total of 213 respondents from 1,972 respondents.

So, to obtain advanced structural models, as follows:

Figure 1. The concept of Structural Research Models



#### 4. Analysis and Results

The results of testing the validity of indicators and reliability testing of this research are presented below.

Table 1. Test of Validity and Reliability

Indicator	Latent Variable	Validity				Reliability
		Loading Factor	Standard Error	t count	t table	CR>0.7 AVE>0.5
x11	Dynamic Capability (X1)	0.879	0.034	25.959	1.972	CR=0.949 AVE=0.824
x12		0.917	0.019	48.098	1.972	
x13		0.916	0.029	31.346	1.972	
x14		0.917	0.020	46.612	1.972	
x21	Customer Knowledge Management (X2)	0.901	0.021	42.727	1.972	CR=0.933 AVE=0.823
x22		0.908	0.014	62.974	1.972	
x23		0.913	0.017	52.702	1.972	
x31	Religiosity (X3)	0.871	0.039	22.243	1.972	CR=0.903 AVE=0.757
x32		0.890	0.025	34.988	1.972	
x33		0.847	0.040	21.025	1.972	

y1	Business Model Innovation (Y)	0.880	0.027	32.397	1.972	CR=0.935 AVE=0.828
y2		0.933	0.014	66.601	1.972	
y3		0.916	0.025	36.221	1.972	
z1	Business Performance (Z)	0.849	0.055	15.390	1.972	CR=0.932 AVE=0.773
z2		0.904	0.023	39.278	1.972	
z3		0.906	0.031	29.606	1.972	
z4		0.856	0.027	31.746	1.972	

From the table above, we can conclude that the lowest significance of the validity test of the Dynamic Variable (X1) was x11, that is the value of t count was 29,959; the result was the lowest significance of validity test. Customer Knowledge Management variable (X2) becomes x21, the calculation result of the t count value of its data is 42,727; the lowest validity test in significance for the variable in religiosity latent variable (X3) becomes x33 and the value of t count for its data is 21,025; the significance for the lowest validity test of the Business Model Innovation variable (Y) becomes y1, that is the value of t count for its data is 32,397 and the lowest validity for significance testing on the Business Performance latent variable (Z) becomes z1, that is, the value of t count for its data is 15,390.

Therefore, all indicators from the above validity test criteria meet the requirements because of the validity test provisions. If t value is testing for loading factor > t table (1,972) so the survey is valid.

Likewise for the reliability testing that is calculated based on the results of the value of Reliability Composite of the Dynamic Capability variable (X1) the value of its data is 0.949; Customer Knowledge Management (X2) variable is 0.933; Religiosity variable (X3) is 0.903; Business Model Innovation variable (Y) of 0.935; and the Business Performance variable (Z) is 0.932, where the value of each Composite Reliability variable of latent is more significant than the provision of the Reliability Composite Standard known as 0.7, which indicates the level of reliability of the indicator to form a very high latent variable.

Whereas for the value of Average Variance Extracted Variable Dynamic Capability (X1) is 0.824; Customer Knowledge Management variable (X2) is 0.823; Religiosity variable (X3) is 0.757; The Business Model Innovation variable (Y) is 0.828; and Business Performance Variable (Z) of 0.773, which shows a higher value than the stipulation of the Extracted Variance Standard Average of 0.5.

Based on these Composite Reliability (CR) and Average Variance Extracted (AVE) values, it can be assumed that all indicators are forming variables in latent that are rational and valid, and it can be used for SEM analysis.

Then the significance test is carried out, with the following results:

**Table 2.** Test of Significance in the Research Model

Var observed → Var latent (outer)	t value	Latent exsogen → Latent Endogen (inner)	t value
x11 → X1	17.714		
x12 → X1	16.976		
x13 → X1	25.209		
x14 → X1	16.471		
x21 → X2	25.365		
x22 → X2	20.673		
x23 → X2	32.898	X1 → Y	3.313
x31 → X3	9.958	X2 → Y	4.933
x32 → X3	12.836	X3 → Y	3.334
x33 → X3	8.723		
y1 → Y	27.959	Y → Z	14.300
y2 → Y	26.302		
y3 → Y	23.628		
z1 → Z	12.223		
z2 → Z	16.029		
z3 → Z	15.892		
z4 → Z	15.180		
<i>t table = 1,972</i>			
<b>Provisions:</b>			
<i>t value &gt; t table or - t value &lt; - t table → significant influence</i>			
<i>t value &lt; t table or - t value &lt; - t table → not significant influence</i>			

Based on Chin (1998), Hair *et al.* (2011), Hansele *et al.* (2009) in Ghozali & Latan (2015) the t value of all indicators forming latent variables and t value has a significant influence on the research variables on other variables, it must have t value standards over large than the t table (1,972). The information on the table above shows that all the above indicators form significant latent variables. Likewise, the t value influences the research variables, namely from X1 keY of 3,133, X2 to Y 4,933, X3 to Y of 3,334 and from variable Y to Z is 14,300 which means that the value of t is higher than t table (1,972).

After it is known that the influence of the research variables is also significant, for test the structural test model above, predictive in relevance (q2) or Stone-Geisser's is used to test predictive capabilities with the limit value > 0.35, the results of the data show the value predictive relevance results of 93.1%, indicating that the model has strong predictive relevance, and Goodness of Fit (GoF), which explains the differences between the observed values and those predicted by the model provided that the GoF value is > 0.36, and the data results show the GoF result value is 0.768, indicating that the model is fit.

The influence of these research variables from the calculation results can be made the equation of the fourth hypothesis study model continued, as follows:

$$Y = 0.321 * X1 + 0.456 * X2 + 0.211 * X3 \quad (R_{yx1x2x3} = 0.773)$$

$$Z = 0.836 * Y \quad (R_{zy} = 0.698)$$

Based on the above calculation result, that can be seen from the SEM value equation, and it is known that:

1. There is a significant effect of Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y) of 77.3%;
2. There is a permanent effect on Business Model Innovation (Y) Performance of the Business (Z) of 69.8%

To add, in order to find out the relationship between the magnitude and the variables in latent, we also can obtain the values of the covariance matrix, as follows: Besides, to find out the magnitude of the relationship between latent variables also obtained the values of the covariance matrix, as follows:

	X1	X2	X3	Y	Z
X1	1.000				
X2	0.836	1.000			
X3	0.564	0.495	1.000		
Y	0.821	0.829	0.618	1.000	
Z	0.730	0.685	0.600	0.836	1.000

Based on the results of calculations between variables with structural parameter values, the influence of internal latent variables on external latent variables that are done directly and indirectly using Microsoft Excel software can be determined, as follows:

1. *Effect of Dynamic Capability Variables (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y)*

P. Direct X1	: 0,321 x 1,000 x 0,321 = 0,103		
P. Direct X1 mll X2	: 0,321 x 0,836 x 0,456 =		0,122
P. Direct X1 mll X3	: 0,321 x 0,564 x 0,211 =		0,038
Total		0,103	+ 0,161
<b>Influence Total X1: 0,264</b>			
P. Direct X2	: 0,456 x 1,000 x 0,456 = 0,209		
P. Indirect X2 mll X1	: 0,456 x 0,836 x 0,321 =		0,122
P. Indirect X2 mll X3	: 0,456 x 0,495 x 0,211 =		0,048
Total		0,209	+ 0,170
<b>Influence Total X2: 0,378</b>			
P. Direct X3	: 0,211 x 1,000 x 0,211 = 0,045		
P. Indirect X3 mll X1	: 0,211 x 0,564 x 0,321 =		0,038
P. Indirect X3 mll X2	: 0,211 x 0,495 x 0,456 =		0,048
Total		0,045	+ 0,086

**Influence Total X3: 0,130**

Direct Influence X1, X2 & X	: 0,103+0,209+0,045 =	0,357
Indirect Influence X1, X2 & X3	: 0,161+0,170+0,086 =	<u>0,416</u>
Shared Influence X1, X2 & X3	:	<b>0,773</b>

So that from the above calculations the total effect given Variable Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y) is 77.3%. The influence of other variables that are not included in this study is 22.7%

## 2. *Effect of Business Model Innovation Variables (Y) on Business Performance (Z):*

Direct Influence Y	: 0,836 x 1,000 x 0,836 =	0,699
Influence Total Y	:	<b>0,699</b>

So that from the above calculations the total influence given by the Business Model Innovation Variable (Y) on Business Performance (Z) is 69.9%. The influence of other variables that are not included in this study is 30.1%.

Thus, from the results of the study, it was found that the effect given Variable Dynamic Capability (X1), Customer Knowledge Management (X2) and Religiosity (X3) on Business Model Innovation (Y) was 77.3% and the influence of other variables not included in this study was 22.7%. While the influence given Business Model Innovation Variable (Y) on Business Performance (Z) is equal to 69.9% and the influence of other variables that are not included in this study is 30.1%.

The hypothesis of this simultaneous research model based on the information above shows that all indicators form significant latent variables. Likewise, the value of t value influences the research variables, namely from X1 to Y of 3,133, X2 to Y 4,933, X3 to Y of 3,334 and from variable Y to Z is 14,300 which means that the value of t is higher than t table (1,972) then the hypothesis is accepted, namely dynamic capability, Customer Knowledge Management, and religiosity through Business Model Innovation, positively influencing the performance of the Islamic banking business in Indonesia simultaneously or partially.

## 5. Conclusions

The results of this study theoretically show that the religiosity variable, alongside Customer Knowledge Management and Dynamic Capability variables simultaneously through business model innovations influences business performance. Even so, it was found that Religiosity, Customer Knowledge Management, and Dynamic Capability partially did not have significant value or direct effect on banking business performance.

Accordingly, the improvement of Business Model Innovation in Islamic banking must be made through increasing Dynamic Capability, Customer Knowledge Management and Religiosity, which will have an impact on improving Business

Performance in Islamic banking. Religiosity variables are one factor of the antecedents on Business Model Innovation.

The findings of these study reinforce previous research on the effect of religiosity on business performance of Islamic banking by Adhikari and Agrawal (2016), Kanagaretnam *et al.* (2015b) Cantrell and Yust (2018) but in this study, religiosity variable did not directly affect performance but through Business Model Innovation. In the Business Model Innovation research perspective, this study raises the antecedents of IMB other than culture (Hofstede, 1980; 2001; Lueg *et al.*, 2013b; Malmrose *et al.*, 2014; Gao, 2013), cultural context (Dalby *et al.*, 2014), sustainability (Birkin *et al.*, 2009; Kiron *et al.*, 2013a; 2013b; Mokhlesian and Holmén, 2012) and CSR (Dickson *et al.*, 2009; 2015). In addition, this research also strengthens the support that creating business model innovation is consistent with the views of Gibbert *et al.* (2002), Rollins and Halinen (2005), Taherparvar (2014) and strengthen the results of previous studies on the effect of dynamic capabilities on Business Model Innovation (Lin *et al.*, 2015).

This study implies a recommendation for Islamic banks to allocate enough resources and invest in improving learning capabilities, building tools and methodologies to find out customer needs in depth and comprehensively and encourage increased knowledge of Islamic banking contracts and the application of appropriate contracts all customer needs. They are intended to create new value prepositions in Business Model Innovations in order to get a positive impact on Islamic Bank Business Performances.

Based on the input from managers, the focus of improvement in terms of dynamic capabilities is to improve coordination capabilities by ensuring adequate allocation of resources according to the needs of the company. In terms of CKM, companies must gather more information from customers about competitor services. In terms of religiosity, the focus of improvement is increasing employee references to Islamic banking and their interest in understanding more in-depth Islamic contracts through increasing the intensity of communication with shariah compliance and the supervisory board sharia. Reforming those three aspects will encourage Islamic banks in Indonesia to improve their products and services more innovatively (better, cheaper and faster) than competing banks (both Islamic banks and other commercial banks), therefore having an impact on improving business performance.

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