**DOES CONSUMER INNOVATIVENESS MATTER?**

**PREDICTING CUSTOMER BEHAVIOR OF**

**A NEW FINANCIAL ARCHITECTURE**

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**Abstract**

Although the benefits of the marriage between Islamic principles of *Shari’ah* and financial services as a new financial architecture has been well documented, however, its adoption within the industry’s core markets was lower than necessary to move the world’s economic potential. This study proposed consumer innovativeness as a marketing strategy to improve customers’ adoption of the new financial architecture. Using a cross sectional study, a survey questionnaires were distributed among Islamic banking customers in Northern Nigeria and was analyzed using Partial Least Square - structural equation modeling (PLS-SEM). Findings indicated that consumer innovativeness, attitude and subjective norm significantly predicted customers’ intention, while perceived behavioral control was found insignificantly related to behavioral intention. Also, consumer innovativeness moderated the relationship between attitude and intention, while evidence for the interaction effect between consumer innovativeness and social norm was not supported. The integration of diffusion of innovation theory and the theory of planned behavior in conceiving and initiating appropriate marketing strategy for the new financial architecture are provided and suggestions for future studies were discussed.

JEL Classification: JEL: G21, M2, M3.

Keywords: ISLAMIC BANKING, CUSTOMER BEHAVIOR, THEORY OF PLANNED BEHAVIOR, DIFFUSION OF INNOVATION THEORY, NIGERIA.

**1.0 Introduction**

Four decades ago, a new financial architecture emerged, channelling huge sum of funds,in the most favorable terms, from surplus to deficit sector of the global economy ([Dogarawa, 2012](#_ENREF_31); [Pearce, 2011](#_ENREF_91)). It was basically the marriage between Islamic principles of *Shari’ah* and financial services that metamorphosed into what has today been conceptualized as “Islamic financial service industry”. Its modern practice can be traced to the late 1950s in Pakistan, Egypt, Malaysia and Philippines ([Gait & Worthington, 2007](#_ENREF_46); [Ismail, 2010](#_ENREF_70); [Siddiqi, 2006](#_ENREF_103)),and subsequently received a nod of approval in the United Arab Emirates (Dubai),and among finance ministers of the Organisation of Islamic Conference (OIC) countries, Jeddah, Kingdom of Saudi Arabia in 1975 ([Durán & García-López, 2012](#_ENREF_32)). Currently,Islamic banking remained the major pillar of Islamic financial assets, nearly 80 percent of the global Islamic finance industry ([Okoli, 2016](#_ENREF_88)). Indisputably, Islamic banking has spread to all nooks and corners of the globe ([Muslehuddin, 1993](#_ENREF_83)),including developed and developing nations, Muslim and non-Muslim countries ([Aziz, 2006](#_ENREF_18); [Muslehuddin, 1993](#_ENREF_83)),with more than 300 institutions growing at an average speed of 17 percent per annum from 2008-2012 ([ey.com, 2014](#_ENREF_39)). This double digit growth has opened up a mixture of financial alternatives among 38-40 million customers ([ey.com, 2013](#_ENREF_38)), and has stimulated financial inclusion and economic growth among low and medium income countries ([Imam & Kpodar, 2015](#_ENREF_67); [Okeke, 2015](#_ENREF_87)).

However, despite these potential, yet, a sizeable number of people and businesses from low and medium income countries, were more inclined to blend their economic activities with conventional banking. For instance, an investigation conducted by among adults respondents in five Middle Eastern and North African countries with emerging Islamic finance industry, found little evidence of the demand of Islamic banking products. Even if any, conventional banks dominated the greater part of the debt financing in Islamic finance core markets, including Gulf Co-operation Council (GCC)([Perry & Rehman, 2011](#_ENREF_92)), Indonesia - the largest Muslim country of the world ([Salamah Wahyuni & Arifin, 2013](#_ENREF_99)), and Nigeria - the largest Muslim country in Sub-Saharan Africa ([Gelbard, Hussain, Maino, Mu, & Yehoue, 2014, p. 10](#_ENREF_50)).In a little more detail, the managing director of *Jaiz* Bank in Nigeria have recently solicited the patronage of more players in an effort to compete favorably with conventional banking ([Suka, 2015](#_ENREF_106)).

Thus, given the significant role of the new financial architecture in the world, specifically among its bona-fide beneficiaries (low and medium income countries), many researchers have earlier linked these challenges to marketing inefficiencies and have suggested Islamic banks to have a clear understanding of the behavior, attitudes and perceptions of their customers so as to formulate appropriate marketing strategies ([Haron & Azmi, 2005](#_ENREF_62); [Kamarulzaman & Madun, 2013](#_ENREF_71)).

Previous attempt to study the adoption behavior of Islamic banking customers led by [Erol and El-Bdour (1989](#_ENREF_37)) have generally found selection of Islamic banking was basically driven by customers’ perception of economic benefits ([Dusuki & Abdullah, 2007](#_ENREF_33); [Erol & El-Bdour, 1989](#_ENREF_37); [Gerrard & Cunningham, 1997](#_ENREF_51)), while other researchers ([Bley & Kuehn, 2004](#_ENREF_22); [Khan, Hassan, & Shahid, 2007](#_ENREF_73); [Metawa & Almossawi, 1998](#_ENREF_78)),reported that preference of Islamic banking was more of perceived religious zeal. However, while these studies facilitate our understanding of customers’ behavior, nevertheless, recent empirical works have increasingly become sophisticated beyond the boundaries of descriptive statistics to the deliberate integration of inferential statistics to analyze and predict customers’ behavior using different cognitive models.

Arguably, the most extensively researched models are the theory of reason action ([Fishbein & Ajzen, 1975](#_ENREF_42)) and the theory of planned behavior([Ajzen, 1991](#_ENREF_5)). Although the theory of reasoned action was found limited in predicting behaviors over which an individual has no volitional control([Ajzen, 1991](#_ENREF_5); [Armitage & Conner, 2001](#_ENREF_17); [Sheppard, Hartwick, & Warshaw, 1988](#_ENREF_102)), nevertheless, these limitations lays the groundwork for the emergence of the theory of planned behavior (TPB)([Abraham & Sheeran, 2003](#_ENREF_1); [Armitage & Conner, 2001](#_ENREF_17)). Despite the fact that TPB model was found parsimonious and predictive of human behavior in different context and domains ([Ajzen, 1991](#_ENREF_5), [2011](#_ENREF_6)), yet, some of its theoretical assumptions in the context of Islamic banking have received limited attention and deserved further attention. For instance, individual’s general disposition to think and behave in some different ways has rarely been investigated ([Sheeran, 2002](#_ENREF_101)). In particular, the role of personality characteristics such as consumer innovativeness in determining belief individuals hold about Islamic banking has not adequately been tested in any of the dominant Islamic banking model. Even if any, some researchers ([Flynn & Goldsmith, 1993](#_ENREF_44); [Goldsmith & Flynn, 1992](#_ENREF_54)) have identified some important functions of consumer innovators to the organization: (i) provide positive cash flow for the industry; (ii) may bring about market leadership or raise barriers to entry for others firms entering the market; (iii) may provide vital feedback regarding new product potentials, or suggest improvements early enough to avoid failure or rejection of the new product; (iv) promote new products through word-of-mouth and legitimize the new products to the majority of customers. Taking into cognizance these functions, it is justifiable and worthwhile in the face of market hostilities and stringent competition from experienced conventional banks in Nigeria, to integrate consumer innovativeness in the study of Islamic banking customer behavior using the theory of planned behavior. The remaining study is organized as follows: Section 2 discusses theory and hypotheses; section 3 discusses the methodology; section 4 analysis and result; section 5 provides discussions and conclusion of the study.

# 2.0 Theory and Hypotheses*2.1 The Theory of Planned Behavior (TPB)*

Ever since Wicker’s ([1969](#_ENREF_116)) publication of his research findings that attitude do not correlate with human behavior, academic researchers and psychologists continued to proposed different models to understand human behavior ([Ajzen & Fishbein, 2005](#_ENREF_7)). Among the most widely used model was the theory of planned behavior ([Ajzen, 1991](#_ENREF_5), [2011](#_ENREF_6)). The theory of planned behavior (TPB) basically assumed that individuals makes their decisions based on reflection of available information ([Webb & Sheeran, 2005](#_ENREF_114)). Therefore, TPB proposes that behavioral intention is the proximal cause of behavior. It follows therefore, that an individual who intends to adopt a particular behavior is more likely to adopt it compared to an individual who refused to indicate his intention. The theory posits attitude, subjective norm, and perceived behavioral control (PBC) as the antecedents of intention. Attitudes reflect individual’s positive or negative evaluations in performing a given behavior (e.g. ‘I enjoyed Islamic financing’). Subjective norms are individual’s beliefs whether significant referents (others)think they should perform the behavior (e.g. ‘people important to me think that I should apply for Islamic financing). Finally, the theory posits that PBC is predictive of both intention sand behavior when PBC accurately reflects actual control over the behaviour (Sheeran, Trafimow, & Armitage,2003). PBC is similar to Bandura’s (1977) concept of self-efficacy, and reflects a person’s appraisal of their ability to perform the behavior. A recent meta-analysis of 185 studies (Armitage & Conner,2001) found that TPB explained 27% of the variance in behaviour, on average; thereby lending support to the efficacy of the TPB as a predictor of behaviour.

Previous studies in the context of Islamic banking have empirically linked the relationship between attitude, social norm, perceived behavioral control and behavioral intention ([Alam, Janor, Zanariah, & Ahsan, 2012](#_ENREF_10); [Amin, AbdulRahman, & AbdulRazak, 2012](#_ENREF_11), [2013](#_ENREF_12); [Amin, Rahim, & AbdulRazak, 2014](#_ENREF_14); [Echchabi & Abd. Aziz, 2012](#_ENREF_34)). Although TPB model was found relevant in predicting the behavior of Islamic banking customers, unfortunately, its validation in the context of Islamic banking remained scanty, and even if any, some of these studies have reported mixed findings. For instance, [Alam et al. (2012](#_ENREF_10)) found subjective norm was insignificantly related to intention. [Echchabi and Abd. Aziz (2012](#_ENREF_34)) found both subjective norm and perceived behavioral control were insignificantly related to behavioral intention. Conversely, [Amin et al. (2012](#_ENREF_11)), [Amin et al. (2013](#_ENREF_12)), [Amin et al. (2014](#_ENREF_14)) reported that attitude, perceived behavioral control and subjective norm predicted customers’ behavioral intention.Hence, taking stock from the above, we argued that findings appears to be scanty, mixed and inconclusive and that more investigations need to be carried out. We therefore we proposed:

**Hypothesis 1:** Attitude positively influences customers’ intention to adopt Islamic banking.

**Hypothesis 2:** Social norm positively influences customers’ intention to adopt Islamic banking.

**Hypothesis 3:** Perceived behavioural control positively influences customers’ intention to adopt Islamic banking.



H2

H3

H1

H4

H5

H6

**Figure 1:** Conceptual Model

*2.2 Consumer innovativeness as a potential moderator*

Innovativeness is defined as “the degree to which an individual is relatively earlier in adopting new ideas than the average member of his social system” ([Rogers, 2003](#_ENREF_98)).It is a well-researched construct that exerts its influence on a variety of new product adoption including rock music and scent innovativeness ([Goldsmith & Hofacker, 1991](#_ENREF_57)), internet buying/shopping ([Agarwal & Prasad, 1998](#_ENREF_3); [Bigne-Alcaniz, Ruiz-Mafé, Aldas-Manzano, & Sanz-Blas, 2008](#_ENREF_21); [Goldsmith, 2002](#_ENREF_56); [Yi, Fiedler, & Park, 2006](#_ENREF_118)), internet banking ([Yiu, Grant, & Edgar, 2007](#_ENREF_119)), consumer electronics ([Van Rijnsoever & Castaldi, 2011](#_ENREF_113)), online apparel customization/fashion ([Goldsmith & Hofacker, 1991](#_ENREF_57); [Nirmala & Dewi, 2012](#_ENREF_85); [Yun & Hira, 2012](#_ENREF_120)), mobile data service ([Parveen & Sulaiman, 2008](#_ENREF_90); [Thakur & Srivastava, 2014](#_ENREF_111); [Yang, 2010](#_ENREF_117)) and mobile phone replacement ([Chih-Chien, Li-Chuan, & Yann-Jy, 2005](#_ENREF_26)).

Furthermore, some researchers ([Agarwal & Prasad, 1998](#_ENREF_3); [Citrin, Sprott, Silverman, & Stem Jr, 2000](#_ENREF_28); [Yun & Hira, 2012](#_ENREF_120)) have also explored consumer innovativeness as a potential moderator between perceived ease of use, perceived usefulness and intention to adopt a particular innovation. Findings have demonstrated that individual with high innovativeness tend to have more positive attitude towards adoption of a particular innovation than individuals with low innovativeness. Hence, the following proposal was made:

**Hypothesis 4:** Consumer innovativeness positively influences intention to adopt Islamic banking

**Hypothesis 5:** Consumer innovativeness moderates the relationship between attitude and intention to adopt Islamic banking, such that the relationship between attitude and intention to adopt Islamic banking becomes stronger (i.e., more positive) for customers with high innovativeness than customers with low innovativeness.

**Hypothesis 6:** Consumer innovativeness moderates the relationship between social norm and intention to adopt Islamic banking, such that the relationship between social norm and intention to adopt Islamic banking becomes stronger (i.e., more positive) for customers with high innovativeness than customers with low innovativeness.

Consistent with the theoretical postulations and empirical evidence presented above, the conceptual model for the present study was given in the above graphical representation as depicted in Figure 1. Intention to adopt Islamic banking is the dependent variable, while attitude, social norm, perceived behavioral control and consumer innovativeness served as independent variables. In addition, consumer innovativeness moderates the relationship between attitude, social norm and intention to adopt Islamic banking.

**3.0 Methodology**

*3.1 Sample, data collection procedures*

A sample of 382 using [Krejcie and Morgan (1970](#_ENREF_74))was drawn from a total population of 60, 000 customers ([Salisu, 2014](#_ENREF_100)). Respondents (customers) were approached when they were either sitting for their turn at the counter, or when they have finished with the counter and were about to exit from the banking halls. The researcher politely explained the purpose of the survey and asked their co-operationto participate. Once, they have indicated their approval, the questionnaire was then handed to them for answering.However, several procedures were undertaken to curve the possibility common method variance (CMV) in the study, as suggested by [Podsakoff, MacKenzie, Lee, and Podsakoff (2003](#_ENREF_93)). Firstly, respondents were informed thatthere was no wrong or right answer to all the items asked and that itwould take them not more than 10 to 15 minutes to complete the questionnaire. They were also informed that their responses will be treated with utmost confidentiality. Secondly, constructs items were modified to reducemethod biasesby avoiding vague or unnecessary question in the questionnaire.

After rigorous data screening using SPSS, finally a total number of 229 responses were entered into smartpls software for analyses. The entire samples were male (75.1%), while the remaining were female (24.9%). Age ranges from 20-60 years, and majority of the participants were diploma/NCE holders (30.6%). In terms of marital status, large number of respondents were married (55%), followed by single (37.1%),divorced (5.7%) and windowed (2.1%). In addition, majority of the respondents were civil servants (57.6%), while the remaining respondents represented businessmen or traders (41.5%). When business relationship with Islamic bank was computed, *Mudharabah*savings (55.5%), current account (27.1%) while *Murabahah*cost-plus financing*, Ijara-Iqtinah*, Auto Finance, and Household finance shared the least remaining percentage (17.4%).

*3.2 Instruments*

The instrument scale chosen to measure the study variables were adopted from previous studies with some minor modificationsto suit the context of the study. Hence, consumer innovativeness6 items scalewas adopted from Goldsmith and Hofacker (1991), attitude 6 items scale was adopted from [Amin, Rahman, Sondoh Jr, and Hwa (2011](#_ENREF_15)), social norm5 items scale and perceived behavioral control 6 item scale were adopted from [Alam et al. (2012](#_ENREF_10)) respectively. Moreover, allitem scales adopted were measured on 4 data point Likert scale (1= strongly disagree, 4= strongly agree).

**4.0 Analysis and Result**

*4.1 Measurement model*

Scholarssuch as [Anderson and Gerbing (1988](#_ENREF_16)), [Henseler, Ringle, and Sinkovics (2009](#_ENREF_63)) and [Hair Jr, Hult, Ringle, and Sarstedt (2014](#_ENREF_60))have provided a two-step guideline for the use of PLS-SEM (i.e. assessment of the measurement and the structural models). Therefore, consistent with these two-steps procedures, the current study assessed the internal reliability, convergent and discriminant validity of the constructs. According to [Bagozzi, Yi, and Phillips (1991](#_ENREF_19)), [Fornell and Larcker (1981](#_ENREF_45)) and [Gefen, Straub, and Boudreau (2000](#_ENREF_48)), the minimum recommended value of composite reliability (CR) and cross loadings is 0.7, while 0.5 for the average variance extracted (AVE).As shown in the table below, (table 1), the AVE have gone beyond the recommended numerical value of 0.5, while all factor loadings and composite reliabilities have exceeded the minimum level of 0.7. This implies thatthe measurement model has achieved adequateinternal reliability as suggested by scholars([Bagozzi et al., 1991](#_ENREF_19); [Fornell & Larcker, 1981](#_ENREF_45); [Gefen et al., 2000](#_ENREF_48)).

Furthermore, the AVE shared by each constructs and its measures should exceed the variance shared between the constructs and other constructs to ascertain the model discriminant validity ([Fornell & Larcker, 1981](#_ENREF_45)). Therefore as enumerated in the table below, the correlation of each of the theoretical construct is less than the square root of the AVE, implying that the measurement model has yielded satisfactorily adequate discriminant validity ([Fornell & Larcker, 1981](#_ENREF_45); [Hair, Black, Babin, & Anderson, 2010](#_ENREF_58))**.**

*4.2 Structural Model*

The structural model was examined following PLS-SEM 5000 bootstrapping procedure suggested by scholars ([Ajisafe & Ajide, 2014](#_ENREF_4); [Hair Jr et al., 2014](#_ENREF_60)) with a 229 data represented by the path coefficients and hypothesis testing shown in table 3 and figure 2 below. Therefore, given that our hypotheses are stated in a directional form, we therefore chose to use a one-tailed test, because the directionality of the relationship between our latent variables were known ([Alam Choudhury & Wajdi Dusuki, 2008, p. 20](#_ENREF_9); [economywatch.com, 2016](#_ENREF_35); [Honohan, 2004](#_ENREF_64)).These values indicate that correlations were significant at one-tailed 0.05 test with critical value of ±1.645.

**Table 1**: Result of the measurement model

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Latent** **Constructs** | **Indicators** | **Standardized****Loadings** | **CR** | **AVE** |
| **Attitude** | ATT 1 | 0.873 | **0.947** | **0.750** |
|  | ATT 2 | 0.861 |  |  |
|  | ATT 3 | 0.899 |  |  |
|  | ATT 4 | 0.891 |  |  |
|  | ATT 5 | 0.834 |  |  |
|  | ATT 6 | 0.836 |  |  |
| **Social norms** | SON1 | 0.789 | **0.907** | **0.661** |
|  | SON2 | 0.830 |  |  |
|  | SON3 | 0.843 |  |  |
|  | SON4 | 0.803 |  |  |
|  | SON5 | 0.800 |  |  |
| **Behavioural Control** | PBC1 | 0.822 | **0.921** | **0.662** |
|  | PBC2 | 0.764 |  |  |
|  | PBC3 | 0.840 |  |  |
|  | PBC4 | 0.852 |  |  |
|  | PBC5 | 0.801 |  |  |
|  | PBC6 | 0.799 |  |  |
| **Innovativeness** | IBCI1 | 0.802 | **0.880** | **0.709** |
|  | IBCI2 | 0.880 |  |  |
|  | IBCI3 | 0.844 |  |  |
| **Intention** | IAIB2 | 0.811 | **0.901** | **0.695** |
|  | IAIB3 | 0.808 |  |  |
|  | IAIB4 | 0.893 |  |  |
|  | IAIB5 | 0.891 |  |  |

 |

**Note:** IBCI3, IBCI4, IBCI5 and IAIB1 were deleted because of low composite reliability loadings of less than 0.50.

**Table 2**: Descriptive statistics and correlation of the latent constructs

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Latent Constructs** | **M** | **SD** | **1** | **2** | **3** | **4** | **5** |
| Attitude | 3.41 | .70 | **.87** |  |  |  |  |
| Innovativeness | 3.04 | .56 | .50 | **.84** |  |  |  |
| Intention to Adopt | 3.29 | .66 | .57 | .42 | **.83** |  |  |
| Behavioural Control | 3.21 | .66 | .70 | .59 | .51 | **.81** |  |
| Social norms | 3.04 | .69 | .61 | .44 | .47 | .64 | **.81** |

**Note:** The selected bold fonts indicate the square root of the AVE while the other non-bold entries indicate the correlations.



**Figure 2:**Structural Model-Direct Relationship

Hypothesis 1 proposed that attitude positively influences intention to adopt Islamic banking. The outcome shown in Table 3, Model 1 indicated that attitude had a significant
positive relationship with intention to adopt Islamic banking (β = 0.352, p< .01). Therefore, our proposed hypothesis 1 was supported. Furthermore, hypothesis 2 proposed that social norm positively influences intention to adopt Islamic banking. Findings indicated that social norm was positively correlated with intention to adopt Islamic banking (β = 0.137, p < .05). The result justifies the proposed hypothesis and provides additional empirical support for social norm.

Additionally, hypothesis 4 posited that consumer innovativeness positively influences intention to adopt Islamic banking. The result indicated that consumer innovativeness positively relates with intention to adopt Islamic banking (β = 122, p < .05). Conversely, the direct effect of perceived behavioral control on intention to adopt Islamic banking showed insignificant relationship (β = .100, p> .1), suggesting that hypothesis 3 was not supported.

**Table 3**: Path coefficients

|  |  |  |
| --- | --- | --- |
| **Latent Constructs** | **Model 1** **(Main Effects)** | **Model 2** **(Interaction Effects)** |
| Innovativeness |  0.122\*\* | 0.082\* |
| Attitude |  0.352\*\*\* | 0.281\*\*\* |
| Social Norm |  0.137\*\* | 0.034\*\* |
| Perceived Behavioural Control |  0.100 | 0.073 |
| Innovativeness × Attitude |  | 0.166\* |
| Innovativeness× Social Norm |  | 0.087 |
| R2 |  0.365 | 0.381 |

Note. Dependent variable: Intention significant at \*p <0.10; \*\*p <0.05; \*\*\*p <0.01

*4.3 Coefficient of Determination (R2 Value)*

Having determined the significance of our path coefficients for model 1 (direct effects), then, we now examined the values of R-square as a measure to evaluate the model. Table 3 model 2 portrayed 0.381 (38.1%) of the total variance in intention to adopt Islamic banking. This indicates that our exogenous latent variables (i.e., attitude, social norm perceived behavioral control and innovativeness) jointly explained 38.1 percent of the total variance in intention to adopt Islamic banking.[Hair, Ringle, and Sarstedt (2011](#_ENREF_59))noted that judgment of weather *R*² level is high or low depends on the specific research discipline. In our own case (consumer behavior), R² value of 0.20 are regarded high in the discipline. Even if any, [Falk and Miller (1992](#_ENREF_41)), have recommended .10 as a minimum level. Thus,our model justifiably can be said to have an acceptable threshold level of R-square values.

*4.3 Effect Size (f2)*

According to ([Chin, 1998](#_ENREF_27)), “effect size measures the relative effect of a specific exogenous latent variable on endogenous latent variable(s) by means of changes in the R square”. It is computed as the increase in *R*square relative to the latent variable’s proportion of unexplained variance([Chin, 1998](#_ENREF_27)). Thus, theeffect size evaluates the effect of a particular exogenous construct when it is omitted from model. It is referred as effect size (f2) and can be computed with the following formula([Cohen, 1988](#_ENREF_29); [Hair Jr et al., 2014](#_ENREF_60); [Iqbal & Shafiq, 2015](#_ENREF_68)).

|  |  |  |  |
| --- | --- | --- | --- |
| Effect size: *f2* | *=* | *R*2included - *R*2excluded |  (1), |
| 1-*R*2included |

where*R*2included - *R*2excludedare the *R*2values of the endogenous latent variables included or omitted from the model.

According to ([Cohen, 1988](#_ENREF_29)), effect size (*f*2) values can be categorized into small (0.02), medium (0.15), and large (0.35) respectively. Thus, our result indicated that the effect sizes for consumer innovativeness (0.03), attitude (0.16), social norm (0.02) and perceived behavioural control (0.01) ranges from small (innovativeness, social norm), medium (attitude) and none (perceived behavioural control).

*4.4 Predictive Relevance (Q2)*

Another measure which was also recommended in the application of PLS-SEM is a test of predictive relevance using blindfolding procedures ([Geisser, 1974](#_ENREF_49); [Hair Jr et al., 2014](#_ENREF_60); [Mohseni-Cheraghlou, 2013](#_ENREF_80)). In other words, a cross-validated redundancy measure (*Q*2) was employed to evaluate the predictive relevance of the structural model. The *Q*2measure is a criterion that assesses how well a structural model calculates the data of omitted cases (Hair et al., 2014). It follows therefore that a research model with *Q*2value greater than zero is considered to have predictive relevance, while a model with zero value or less has no any predictive relevance([Chin, 1998](#_ENREF_27); [Hair Jr et al., 2014](#_ENREF_60); [Henseler et al., 2009](#_ENREF_63)). Taking into cognisance these thresholds, the outcome of blindfolding analysis indicated *Q*2 value of 0.240, which is greater than zero, suggesting predictive relevance of the model.

*4.5 Testing the Moderating Effects*

In this study a product-indicator approach was employed to test the strength of the moderating effects of consumer innovativeness. The first step requires attitude and social norm and innovativeness as an independent latent construct in the model. The second step demand the creation of an interaction term by multiplying the products indicator of the exogenous latent variables with each indicator of the moderating variable([Hair Jr et al., 2014](#_ENREF_60)). The third step involves the computation of the standardized path coefficients using a sample of 5000 bootstrapping to check whether the moderating effects are significant(see Table 3, Model 2). The final step requires determining the strength of the moderating using Cohen’s ([1988](#_ENREF_29)) effect size formula.

**Figure 3.** Interaction effect between attitude and consumer innovativeness in predicting intention to adopt Islamic banking

Thus, we have proposed in this study, consumer innovativeness moderates the relationship between attitude and intention to adopt Islamic banking, such that the relationship between attitude and intention to adopt Islamic banking would be stronger (i.e., more positive) for individuals with high innovativeness compared to individuals with low innovativeness. As shown in Table 3, Model 2, there was a significant moderation effect between attitude and consumer innovativeness (β = 0.166, p < .1). Therefore, hypothesis 5 was supported. Figure 3 presents the nature and form of the interaction between attitude and consumer innovativeness. The linear curve indicates that the effect of attitude is stronger (i.e., more positive) for individuals with high innovativeness than individuals with low innovativeness.

Furthermore, hypothesis 6 proposed that consumer innovativeness would moderate the relationship between social norm and intention to adopt Islamic banking, such that the relationship between social norm and intention to adopt would be stronger (i.e., more positive) for individuals with high innovativeness than individuals with low innovativeness. Unfortunately, this hypothesis was not supported (β = .087, p >.1) as indicated in Table 3, Model 2. Regarding the strength of the moderating effects, the results showed the effect size of 0.11, thus, suggesting a small effect based on Cohen’s (1988) effect size determination criterion.

**5.0 Discussion and Conclusion**

*5.1 Discussion*

First, with regards to hypothesis 1, findings indicated a significant positive relationship between attitude and intention to adopt Islamic banking, suggesting that when customers are certain about the positive benefits of engaging with Islamic banking, the greater will be their willingness to patronize Islamic banking. This result is consistent with [Amin et al. (2014](#_ENREF_14))who found a significant and positive relationship between attitude and intention to adopt *Musharakah-Mutanaqisah* financing. Similar results were also reported by[Taib, Ramayah, and Razak (2008](#_ENREF_107)) and [Amin, Ghazali, and Supinah (2010](#_ENREF_13)).

Social norm has also been found to correlate with behavioral intention. The result of the study was consistent with the study of ([Amin et al., 2010](#_ENREF_13); [Lada, Tanakinjal, & Amin, 2009](#_ENREF_75); [Taib et al., 2008](#_ENREF_107))According to [cbn.gov.ng (2011](#_ENREF_25)), social normis an important factor that influences behavioral intention particularly in the early stages of theadoption process, wherecomplete and ready-made information about products/services is lacking among potential customers. Moreover, since its inception, Islamic banking in Nigeria have received negative perception from non-Muslim population([Garba, 2014](#_ENREF_47); [KC, 2012](#_ENREF_72); [NPC, 2016](#_ENREF_86)) and the mass media ([Ezinwa, Okafor, & Onyike, 2013](#_ENREF_40)), hence, potential adopters may have to depend on word of mouth reliably from among their referents.

However, perceived behavioral control was not supported in our sample, nonetheless, other related studies have also reported similar findings ([Echchabi & Abd. Aziz, 2012](#_ENREF_34); [Moshrefjavadi, Dolatabadi, Nourbakhsh, Poursaeedi, & Asadollahi, 2012](#_ENREF_81); [Munyanyi, 2014](#_ENREF_82); [Taylor & Todd, 1995](#_ENREF_108); [Teo & Pok, 2003](#_ENREF_109); [Towler & Shepherd, 1992](#_ENREF_112)). Empirically, [Madden, Ellen, and Ajzen (1992](#_ENREF_76)) have provided additional support for this findings in a survey of 10 behavioral models that had different mean levels of PBC. For those behaviors that individuals perceived as easy to carry out, the TPB was found to perform not better than TRA. But, when the behavior was perceived as less controllable, then PBC becomes relevant and contribute substantially to the model. Consistent with this findings, our descriptive statistics (table 2) indicates high mean value (high volitional control) for PBC construct (mean equals 3.205 on a scale from 1to 4).Thus, Islamic banking adoption in Northern Nigeria seems not to be hampered by lack of opportunities, skills or resources, anyone interested to form positive intention about Islamic banking is welcome.

In addition to the above, we also proposed hypothesis 4, consumer innovativeness to moderate the relationship between attitude and intention to adopt Islamic banking, such that the relationship between attitude and intention to adopt Islamic banking would be stronger (i.e., more positive) for customers with high innovativeness than customers with low innovativeness. The outcome of the study yielded a significant positive interaction effect between innovativeness and attitude, and is consistent with some previous works ([Citrin et al., 2000](#_ENREF_28); [Goldsmith, 2001](#_ENREF_55), [2002](#_ENREF_56); [Yun & Hira, 2012](#_ENREF_120)).

However, contrary to our expectation, consumer innovativeness did not moderate the relationship between social norm and intention to adopt Islamic banking. This insignificant interaction effect is worthy of discussion. We may first of all recall that social norm is the weakest construct in the TPB model (see, [Armitage & Conner, 2001](#_ENREF_17); [Godin & Kok, 1996](#_ENREF_52); [Sheppard et al., 1988](#_ENREF_102)), and because of its weaknesses, some prior studies have completely removed it from their studies ([e.g., Sparks, Shepherd, Wieringa, & Zimmermanns, 1995](#_ENREF_105)), others have re-conceptualized it (see, [Abrams & Hogg, 1988](#_ENREF_2); [Hornsey, 2008](#_ENREF_65); [Terry, Hogg, & White, 1999](#_ENREF_110); [White, Smith, Terry, Greenslade, & McKimmie, 2009](#_ENREF_115)). Thus, measures of social norm adopted in our model did not tap the individuals’ characteristics that have identified themselves as independent. According to [Park and Levine (1999](#_ENREF_89)), TRA social norm indicators (items) are for those individuals who identified themselves as interdependent. An interdependent construed individual generally act in accordance with perception of his referents ([Markus & Kitayama, 1991](#_ENREF_77); [Singelis, 1994](#_ENREF_104)), while an independent construed individual act according to his attitude, emphasizing the uniqueness of his feelings, thoughts, and actions without much reference to others ([Park & Levine, 1999](#_ENREF_89)).

*5.2 Implications for theory and practice*

According to [Fishbein and Ajzen (2010](#_ENREF_43)), people who vary in terms of their individual disposition may significantly differ in the belief they hold against some specific behaviors. Furthermore, when an individual disposition is unrelated with a particular belief, the individual is not expected to influence that behavior. In the light of the above conception, the outcome of the study has validated the direct relationship between consumer innovativeness, attitude, social norm and intention to adopt Islamic banking. Also, the study has examined the roles of individuals with high and low innovativeness with respect to attitudes, social norm, and intention to adopt Islamic banking.

In addition, findings have provided some important managerial implications to Islamic banking institutions and low and medium income countries of which Muslim are the majority. The practical/managerial implications of the study lie in the fact that Islamic banking industry has emerged with numerous opportunities opened to low and medium income countries. Unfortunately, the new system met steep competition from conventional banks who are more experienced with the market. Thus, our interest is focused on the fact that government interest in financial inclusion and economic growth in low and medium income countries may turn to be a historical fallacy if customers do not accept the new innovation. Specifically, in Nigeria, government dream of becoming regional Islamic banking hub, that will attract foreign investment, provide job opportunities, economic growth and development is being defeated. Thus a marketing strategy using consumer innovativeness construct was proposed and tested.

*5.2 Limitations and Future Research Directions*

The insignificant moderating effect of consumer innovativeness on the relationship between social norm and intention to adopt Islamic banking suggests social norm construct to include measures of impersonal sources of information. Thus future studies may consider the integration of impersonal sources of information measures. Second, this study adopted a cross-sectional design, in which causal inferences and generalization cannot be made to the entire customers of Islamic banking. Therefore, a longitudinal design is suggested in the future to analyze changes over time. Third, intention to adopt Islamic banking was examined by means of self-report measures. However, self-report measures are associated with common method variance ([Podsakoff, MacKenzie, & Podsakoff, 2012](#_ENREF_94)) and social desirability bias ([Dodaj, 2012](#_ENREF_30); [Podsakoff & Organ, 1986](#_ENREF_95)), thus, the insignificant relationship discovered in the model might perhaps be to respondents’ under-reporting of their beliefs and intention on the questionnaires. Therefore, future studies may wish to use mixed method to help reduce the problem of common method bias. Forth, our PLS-SEM model 2 explained 38.1 percent of the variance in intention to adopt Islamic banking. Although a 20 percent variance in consumer behavior research is commendable ([Hair Jr et al., 2014](#_ENREF_60)), yet, it indicates that future studies are needed to capture the remaining variance. It is argued that consumer innovators act in the absence of the influence of others, gathering their information from impersonal sources such as the mass media ([Midgley & Dowling, 1978](#_ENREF_79)).

*5.3 Conclusion*

Conclusively, this study has provided to the academia and in particularly Islamic banking context, additional theoretical and empirical evidence to the growing body of literature regarding the direct and indirect (moderating) role of customer innovativeness on intention to adopt Islamic banking. Findings from the study lend empirical support to the predictive power of the theory of planned behaviour. The theoretical framework of thisstudy has also added an important contribution to the TPB by examining theinfluence of consumer innovativeness on intention to adopt Islamic banking as well as validating consumer (domain specific) innovativeness scale across divergent product/service category (i.e. Islamic banking), in a developing country such as Nigeria.

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