Determinants of islamic banking adoption across different religious groups in Ghana: A panoptic perspective

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Abstract. This study sought to ascertain critical determinants of Islamic Banking (IB) adoption among different religious groups. The study draws on from the Theory of Planned Behaviour, Diffusion of Innovation, Theory of Reasoned Action and Technology Acceptance Model on IB adoption. The study employed a quantitative research paradigm to study 600 individual financial service users in Ghana. Structured questionnaire from previous studies was adopted, modified and used to conveniently elicit data from the participants. Smart Partial Least Square Structural Equation Modelling (PLS-SEM) was deployed to analyse the empirical data. The results show that perceived knowledge, perceived benefit, perceived innovativeness, perceived religious promotion, customer's attitude and readiness to comply with sharia were significant determinants of IB adoption for the Muslims, Christians and Africa Traditional Religion (ATR) sub-groups. However, perceived threat of violence was a significant negative determinant of IB adoption for the Christians and ATR sub-groups but insignificant for the Muslims sub-group. More so, perceived religious promotion was a negative factor for ATR sub-groups intention to adopt IB. The result pinpoints the need for formalization and demystification of IB to attract different religious groups. However, these

results should be taken as preliminary since counterfactual analysis (CFA) across entire Ghana is required to validate IB implementation and adoption. Although these results support most previous studies further empirical research is proposed to replete this study across other Non-Islamic States in the Sub-Sahara Regions.

Keywords: adoptions, africa traditional religion, christians, determinants, Ghana, islamic banking, muslims.

JEL Classification: D02, O16, O17, P31

1. INTRODUCTION

Islamic Banking (IB) encompasses provision of financial services in compliance with sharia law and it operates commonly in the Islamic economies (Mariadas, et al., 2017; Nurdin, 2017; Setybudi et al., 2016; Riaz et al., 2017; AlMaimani et al., 2015; Buchari et al., 2015; Butt et al., 2010; Muhamat et al., 2008; Akbar, 2008), Islamic Banking is now of world's greatest concern due to the global goal of poverty alleviation (Mariadas, et al., 2017; Louati et al., 2015; Kamarulzamn et al., 2013; Akbar, 2008) and improved socio-economic status of the people in Islamic economy and the rest of the world (Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015).

Innovative products and services of IB had been widely reported (Mbawuni & Nimako, 2017; Hamza, 2016; Abedifar et al. 2015; Amran et al., 2014; Hassan & Lewis, 2014; Hassan et al., 2013; Choiruzzad et al., 2012). These include: Mudarabah (Profit and loss sharing), Wadiah (safekeeping), Musharaka (joint venture), Murabahah (cost plus), and Ijar (leaing) are some aspects of Islamic banking. Riba or usury is interest (additional sum to be paid together with the loan principal) that must be paid on the loan amount offered in the agreed service. However, sharia law forbids riba/usury in the context of Islamic banking and financing sector. Sharia law does not allow allocation of Islamic funds into the provision of goods and services that fail to conform to Islamic principles (e.g. pork and alcohol business) and this type of business is termed as haram ("sinful and prohibited") by sharia law (Buchari et al., 2015; Butt et al., 2010; Muhamat et al., 2008; Akbar, 2008).

Moreover, Hamza (2016) and Amran et al. (2014) averred that in the history of Islamic countries and communities, Islam has been administering these prohibitions with the ultimate aim of avoiding non-Islamic cultures in its service delivery. The IB started a vigorous implementation of these Islamic principles in their private and semi-private commercial banks and financial institutions across the Islamic countries/economies in the 20th century. The IB developed rapidly in number and size thereafter, and that in the year 2009 whooping number of more than 300 banks and 250 mutual funds were already in place practicing the Islamic principles, and the number culminated almost to $2 trillion in 2014 (AlMaimani et al., 2015). Muman (2014) claimed that sharia-compliant bank/financial institutions constitute almost 1% of the total global assets and they are found in cluster in Gulf Cooperation Council (GCC) countries, Iran, and Malaysia. IB is in the face of rapid growth rate and developing at quicker rate compared to the rest of global banking assets and the continuity of this trend is very certain, however Islamic banking's contribution is a fraction of the Muslims banking assets in contemporary terms.

Bella et al. (2016), Elasrag (2016) and Muman (2014) asserted that Islamic banking industry is awarded with applause for maintaining its route of "divine guidance" and avoiding the integration of the "political and economic supremacy" of the Western culture during its revamping process, sharia-compliance is the hallmark of the Islamic banking, full implementation of the Islamic principles assures

"no inflation, no unemployment, no exploitation and no poverty". Notwithstanding, AlMaimani et al. (2015), Buchari et al. (2015) and Butt et al. (2010) postulated that IB faces a number of criticisms for not embarking on profit and loss sharing or other conventional methods of transacting business as clarified by the pioneers, rather than concentrating on banking products sales in "accordance with the previous demands of Islamic law", instead resorts to "ruses and subterfuges to cover interest", and include "higher costs, higher risk" compared to ribawi (conventional) banks.

Regarding IB adoption various discoveries (Abedifer et al., 2016; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015) have been made. Various determinants have been reported, notably benefits, knowledge, attitude, Islamic promotion, innovativeness, sharia compliance and satisfaction (Mbawuni and Nimako, 2017; Nurdin, 2017; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015). Meanwhile, recent researches (Mariadas, et al., 2017; Nurdin, 2017; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015) had examined broadly the determinants of IB adoption between Muslims and Non-Muslims Sub-groups but had ignored IB adoption among Muslims, Christians and Africa Traditional Religion (ATR) Sub-groups in a single study. To address this limitation in literature and explore the variations across these religious lines the present study is conducted to address this knowledge gap.

There are vast difference between IB and conventional banking (Mariadas, et al., 2017; Nurdin, 2017; Setybudi et al., 2016; Riaz et al., 2017; Abedifar et al., 2015; Hassan & Lewis, 2014; Wan Ibrahim & Ismail, 2015). Wan Ibrahim and Ismail (2015) in their work extensively presented evidence of the difference and similarities between conventional financial institutions and IB in terms of business organization, supervisory roles, economic roles and law origins. It was noted in terms of business organization, Islamic banks obtain their profit from sharing profit and loss through transactions whereas conventional banks make profit through interests on lending to borrowers. In relation to economic roles, IBs are not sole focused on variables that influence growth but on economic roles itself which must align to Maqasid al-Sharia. On the contrary, conventional banks pay much attention to business growth by charging interest on transactions. Based on the origin of laws, Islamic Financial Institutions (IFIs) employ Sharia laws while conventional banks do not use religious laws. With respect to supervisory roles, IBs and conventional banks have some similarities. That is IFIs and conventional banks have financial boards. However, the philosophy of these supervisors on running the bank differs but the nature of governance structure follows the same pattern. The use of the Sharia principle is what distinguish IBs from conventional banks and this differentiates their governance and engagement in business system that create economic values (Mbawuni & Nimako, 2017; Nurdin, 2017).

This paper is aimed to ascertain determinants of IB among Muslims, Christians and African Traditional Religion sub-groups. Most previous studies centered on IB adoption among Muslim and non-Muslim. Our paper is among the fewest to explore IB adoption a cross three different religious groups in Ghana. Moreover, this paper contributes to the adoption and implementation process of IB in Ghana. Besides, this paper re-echoes the academic debate on IB adoption in Non-Islamic States such as Ghana. The rest of the paper is organised as follows. The next section presents the literature and theoretical review of the study; this is followed by the methodology, results, discussions, conclusions and implications.

2. LITERATURE REVIEW

2.1. Determinants of Islamic Banking Adoption

There are several studies (Mariadas, et al., 2017; Nurdin, 2017; Hamza, 2016; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015; Butt et al., 2010; Muhamat et al., 2008) on determinants of IB

adoption. Whiles most of these writers dealt the level of adoption among Islamic States (Mariadas, et al., 2017; Nurdin, 2017; Setybudi et al., 2016; AlMaimani et al., 2015) others (Mbawuni & Nimako, 2017; Muhamat et al., 2008; Akbar, 2008) conducted comparative studies between Islamic and Non-Islamic States. Moreover, many recent studies (Mbawuni & Nimako, 2017; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015) specifically concentrated on comparism along different religious lines.

Customers' Satisfaction with IB: Customers' satisfaction had been perceived as major determinant of IB and had been widely reported (Janahi et al., 2017; Akhtar et al., 2016; Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015; Anwar, 2014; Ghoul, 2013; Awan et al., 2011). For instance Maswadeh (2015) reported that the quality of services rendering by the banks is based on a model with six dimension, namely: Compliance; Assurance; Reliability; Tangibility; Empathy and Responsiveness(CARTER). The most satisfactory dimensions of the CARTER model were Assurance, Compliance and Empathy according to the respondents from Jordanian Small and Medium Sized Enterprises (SMEs).

Relatedly, Awan et al. (2011) examined the relationship between service quality and customer satisfaction among the customers of conventional banks and Islamic banks employing the SERVQUAL Model and reported that the relationship between multidimensional service quality dimensions and unidimensional customer satisfaction factor updated the significance of service quality aspects for behavioral intention (satisfaction, feeling) for customers from Islamic banks and conventional banks. In Pakistan, Akhtar et al. (2016) reported on customer perception toward Islamic banking and the factors accounting for that. Janahi et al. (2017) addressed the impact of IB service quality on customer satisfaction. The study shows positive relationship between the six dimensions of customer service quality (Compliance, Assurance, Reliability, Tangibility, Empathy & Responsiveness) and satisfaction of customer.

The study also looks at the Islamic religion and cost and profit effect on the Islamic banking product and service (Anwar, 2014). The perception of customers in Islamic banking is greatly influenced by the religion and is the factor that moves the customers to do business with Islamic banking (Ghoul, 2013). The religiosity links with the bank cultural practices, reputation, perceived value and dependent variables Ali (2012) and Nagyi et al. (2017), reported on reintermediation in the banking sector and the analysis and comparison of Islamic and conventional banks from this perspective. The study underlined better capitalization, improved liquidity and better service quality move alongside reintermediated financial market as one of the special characteristics of Islamic banking. Setybudi et al. (2016) used MGB (Goal-Directed Behavior) to analyze the savings at Islamic bank. They argued that the behavioral intention of consumers to adopt and continue saving at Islamic bank is crucial, consumers always try to satisfy themselves with specific provided service and product, and hence the need for MGB to understand and forecast the behavioral intention of consumers. MGB is one of the best theories for behavioral intention of consumer, even though validated and tested but is in constant application. The study furthermore revealed other behavioral and control beliefs that also impact intention.

In Jordan, Muman (2014) discussed the duty of Islamic banks and financial institutions in funding the development of SMEs. The findings of the study revealed that the Islamic finance for SMEs is satisfactory and the banks concentrate on increasing investors' profit margin, eradicating society's inequalities and improving standard of living as well as ensuring social welfare. Furthermore, the study showed that the Islamic bank has quick approval time for funding application compared to other conventional financial institutions. Therefore, customers choose Islamic banks and financial institutions for the reason of simplicity and Islamic laws-compliance. These findings lean support to the perceived customer satisfaction as a determinant of IB adoption.

Knowledge on IB: Knowledge on IB is regarded as one of the key determinants of IB adoption (Mariadas et al., 2017; Nurdin, 2017; Mahdzan et al. (2015; Abuazom et al., 2013; Abuazom et al., 2013) revealed in their study that the Islamic Bank embarks on knowledge sharing among employees and other motivations like promotion and reward system. Islamic Banks encourage their employees to share knowledge and information in order to reduce risk (risk-weighted assets) of the capital adequacy ratio (CAR). Mudaraba depositors (investment account holders) bear 100% of the credit and market risks of their assets.

Nurdin (2017) reported that information technology infrastructures have been a major support in the knowledge management projects in the Islamic banks. Some of these information technology infrastructures are Internet, intranet, websites, emails and social media. Nurdin concluded that the success knowledge management projects had been possible and successful by the support of information technology infrastructures. Again in Malaysia, Mariadas et al. (2017) reported on the factors shaping the adoption of Islamic Banking in Selangor. Two main factors namely consumers knowledge and consumer satisfaction are revealed in the study. Study conducted in Malaysia, by Mahdzan et al. (2015), revealed the level of understanding of Islamic banking concept as the influential factor in the use of Islamic banks in the country. The study indicated low level of understanding of Islamic banking. Hence little use of the banks.

Compliance with Sharia: Another critical determinant of IB adoption is compliance with sharia principles (Amran et al., 2014; Abd Ghani, 2013; Weber, 2012; Romney & Steinbart, 2012; Wardiwiyono, 2012; Farook, 2011). Islamic banking or Islamic finance or sharia-compliant finance is defined as a financial institution rendering all sorts of banking/financial services in the compliance with sharia law and it operates in commonly in the Islamic economies. Amran et al, (2014), checked some Iinternational Mmonetary Fund's programs on the Islamic microfinance (application of Mobile Banking with the capacity increase access to financial services. They reported that, even though IMF remains the mode of financing, the IMFIs practices are implemented in line with shariah-compliant methodology. Shariah-compliant covers the competency of IMFI's AIS (Romney & Steinbart, 2012; Wardiwiyono, 2012), and track accountability with the aid of IT resources mainly involve the system f loan repayment and disbursement (Weber, 2012; Abd Ghani, 2013). They asserted that MB is an efficient mechanism of cutting down cost and harnessing flexibility, for the reason that MB has a cost effective service delivery modes to attain the aim of financing the poverty remote areas (Alhuda CIBE, 2013).

The study conducted by Hamza (2016) examined how the investment deposit return does comply with profit and loss sharing principle. The impact of capital ratio and interest rate on investment deposit return is positive. Comparatively, small Islamic banks give more return of deposit than the big banks and there is of no effects of board of directors and Sharia board. Farook (2011) reported on the incentive-based regulatory mechanism to entice Islamic banks to blend their intended normative structure (profit and loss sharing) with the operational pragmatic practices in which Islamic banks operate. The study suggested capital adequacy regime offered by central banks, which is in line with Islamic bank's operational structure, as investment bank or commercial bank.

Ghayad (2008) indicated that the performance of Islamic banks based on Islam principles affect the internal variables of quantitative nature (financial ratios) and internal qualitative variables (managerial variables). The study argued that the measurements of the performance of an Islamic bank and conventional bank should not be on the same plane, due to the difference in their objectives. In addition, the Shariah members should have competence in finance and commerce to allow quality supervision and consultation. Ghanadian et al. (2004) asserted that Islamic banks are able to implement banking system which ensures provision of liquidity and aid in the process of money formation. Islamic banks give transactions accounts to the compensation for inflation to risk-avoiding depositors.

Benefits associated with IB: Benefits associated with IB is also another important determinant of IB adoption (Abdiaziz, 2017; AL-Jahri, 2017; Abedifer et al., 2016; AlMaimani et al., 2015; Sulayman, 2015; Choiruzzad et al., 2012; Nathan et al., 2007). For instance, Choiruzzad *et al.* (2012) reported that numerous successes chopped by the banks are traced to the effective roles played the Islamic scholars in the MUI and Islamic organizations such as Nahdhatul Ulama and Muhammadiyah. The Islamic scholars' active involvement in the governance of Islamic economy project has resulted in their current better performance of their banks. Since 1990, the industrial growth of the country has given and strengthens the participation of the Islamic scholar in the governance of Islamic banking and Finance as shown in the setup of DSN. This is how far the strong connection between the Islamic scholars their states have contributed to the Islamic economy, especially banking and finance.

In Oman, AlMaimani et al. (2015) examined how SMEs are benefitted by Islamic banks. In the midst of several initiatives for Small and Medium Sized Enterprises, it has still been a problem for many entrepreneurs to choose program or initiative, which best fits their business environments, especially in the case of incoming ones. Many development-support services are being rendering by so many organizations and institutions. The Islamic banking concept demonstrates competitive advantage: A proper understanding of the strength Islamic financing is given, that is based on the capital attraction, which is scarce resource to the market (risk- taker) and it is very crucial growth and development. Islamic banks do not meet the needs of capital investment (risk-free) of fixed earnings. For this reason, it runs as deflator for the risk-associated capital in order to bar it from financial market. Abedifer et al. (2016) reported on essentiality of the Islamic banks and their conventional competitors in accordance to banking and financial and economic development. The study also revealed the Islamic banks' tremendous market share is due to proper efficiency of conventional banks.

In Tanzania, Sulayman (2015) addressed the force of attraction of the industry to conventional bankers and financial agencies among the Muslims from 2008 to 2013.The study argued that poverty and socio-economic status of people could be solved and improved through aiding them by enabling their sustainable Islamic financial institutions and Islamic banking. Amana Banks, Islamic SACCOSSs are examples of the institutions. The argument continued that these institutions could only prosper if the bank of Tanzania (BOT) would embrace the policies, principles and ethics of Islamic financing. Poverty alleviation and high employment opportunity levels in the country can be achieved through this practice.

In Tunisia, Kaabachi et al. (2015) discussed the reputation and merits of Islamic banking in relation to its effectiveness with consumer religious beliefs, values, lifestyle and banking practice, which determine the willingness to use the banks. Rather unfortunately, the consumer intention to use the new financing system is negative due to general lack of consumer awareness of Islamic banking in the country. In Kenya, Abdiaziz (2017) examined the impact of Islamic banking on SMEs in the city of Nairobi in the context of the performance of SMEs. The level of financial profitability of SMEs is an indication of service and product quality of Islamic banking. Islamic bank give different banking product and service from previous banking products, which encourage SMEs to adopt the bank.

Equitable access to credit and customized product by Islamic banking has helped the growth of SMEs in the country. The financial decision process of Islamic banking has enormously improved leading to its service quality and hence the growth of SMEs. The study further revealed that Islamic banking has positive impact on the growth of SMEs and their financial performance improved. AL-Jahri (2017) assessed the economic rationale for Islamic finance. The study found that Islamic finance has unique merits and can therefore embrace reform agenda for conventional finance, since its doors are open to relevant monetary reforms in the recent prevailing economic environment.

Customer Attitude towards IB: The general customer attitude towards IB determines the adoption rates (Bella et al., 2016; Tipu, 2014; Hassan et al. 2013; Mustafa, 2011; Acher et al., 2010; Ismal, 2010;

Akbar, 2008). Buchari et al. (2015) examined the employees' attitudes and awareness towards the services and products of Islamic banking products and confirmed the employees' standard of awareness and attitudes. The information would be important in the future ascertainment of the employees' competitiveness in the Islamic Banking and Financial Institutions. Some marketing strategies may be developed for promotion and elevation of awareness by organizing workshops on the products services of the Islamic banks. The banking institutions would continue to developing means of sensitizing and educating their employees of the Islamic terms and conditions of service and product more seriously.

Islamic banking in the United Kingdom may not differ from Islamic banks in the other parts of the world. Akbar (2008) examined the evaluation of user perception of Islamic banking practices in the UK. Bella et al. (2016) conducted the study in Jordan to discuss the perceptions of stakeholders on corporate social responsibility (CSR) of Islamic banks. The study revealed that the stakeholders have shown positive attitude toward the concept of CSR on the part of Islamic banking. The stakeholders admit to the fact that the CSR issue is a priority of Islamic banking. With the respect to formal research works, conclusion is that the Islamic banking has in-built dimension which encourages and improves social responsibility in Jordan.

Islamic Religious Promotion and IB: Religious promotion is a major determinant of IB adoption (Jamshidi et al., 2016; Jaffar et al., 2015; Alam, 2013; Hassan et al., 2013; Butt et al., 2011; Sun et al., 2012; Sufian, 2007). In Malaysia, Muhamat et al. (2008) the measured of the sensitivity of the banks' customers towards the use of Arabic terminology in the Islamic banking industry. They argued that the majority of their respondents claim that Arabic terminology sets competitive edge for the Islamic banks and the bulky Arabic names would make information and comprehension of their products more difficult. The non-Muslim respondents are at negative side of every statement, therefore, the necessity for the Islamic banking to handle the issue more professionally, for the reason that the non-Muslims clients dominate the Malaysian industry. Jaffar et al. (2015) revealed that 'Religion obligation is the influencing factor of attitude, which coincides with Butt et al. (2011) study'. This means that the perceived compliance with the shariah criterion (i.e. Riba-free banking, Halal investments and equal distribution of wealth) is compulsory in the minds of the non-users. Therefore, financial institutions must adopt means of leveling Shariah-compliant imagery and placing premium on the implementation of Islamic financing which truly reflect Shariah-compliant.

Sun et al. (2012) examined the impact of religious affiliation and commitment exhibit on Southeast Asian young adults' willingness to deal with Islamic mobile phone banking. The study reported that Islamic mobile phone banking is unbelievable service, alongside with low consumer awareness and experience, mostly among the non-Muslims. The difference between Muslims and non-Muslims, as well as devout and casually religious Muslims necessitated the religious affiliation and commitment as strategies of segmentation. In a nutshell, the committed Muslims were accustomed to their adoption criteria while casually religious and non-Muslims depended on the utility rational.

Jamshidi et al. (2016) assessed the adoption of Islamic credit card and argued that perceived religiosity advance the TAM predictive force to make the intention to use clearer. On the other hand, perceived usefulness, perceived ease of use and attitude gave low variance with respect to intention to adopt, by inclusion of perceived religiosity to TAM, these designs added to an increase in the variance mentioned, thereby giving a proper explanatory force. Moreover, suggested joint TAM, perceived religiosity and trust clarified 57.1 per cent of usage behavior variance. In view of the above literature review this study is focused on examining major determinants of IB among different religious sub-groups in Ghana.

3. METHODOLOGY

This study was carried out in non-contrived setting within Ghana's second largest city (Kumasi). Courtesy of it location Kumasi is regarded as a hub of businesses and trade. Moreover, the oil and gas discovery in Ghana has further expanded the activities of financial institutions IB can't be disregarded in this respect. Moreover, fairly 35% of the current Ghanaian population is Muslims- implying that having access to financial institutions operating with the full sharia principles would be a welcoming idea to section of the population particularly and Ghanaians at large. Apparently, Ghana is one of the palpable choices. These reasons are worthy enough to intrigue researchers and business practitioners about the choice of Ghana.

The study made use of quantitative research design to address the established objectives of the study. By applying quantitative designs the researchers dwelled more on use of numerals and estimations to measure the degree of occurrence of the selected constructs in the study. This design also has the following attributes; collection of numerical data, it's based on positivism and objectivity conception of social reality (Fox and Bayat, 2007). This study used quantitative design to ascertain critical determinants of Islamic Banking (IB) adoption among different religious groups. Moreover, this study was classified as an explanatory research due to the cause s-and – effects relationships. The unit of analysis for this study was at the individual level.

The population of the study comprised of all financial service users and non- users within the age bracket of 18+ and reside within Kumasi metropolis. In terms of population sampling two main categories are known. Namely; probability and non-probability sampling- the former provides zero chance of been included in the study whereas the later chooses specific member of population to be included in the study. Overall, 600 questionnaires were face-to-face administered to the three sub-groups of respondents, notably; Christians sub-group, Muslim sub-group and African Traditional Religion sub-group. Quota sampling technique was used conterminously with convenience sampling – which forms part of the non-probability (non-randomization) sampling techniques (Gravetter & Forzano, 2011). These sampling techniques were considered to ensure fair representatives among the three groups in the study.

The main research instrument used in the study was structured questionnaires which were developed based on Theory of Planned Behaviour, Diffusion of Innovation, Theory of Reasoned Action and Technology Acceptance Model from recent empirical researches (Mbawuni & Nimako, 2017; Hamza, 2016; Abedifar et al. 2015; Amran et al., 2014; Hassan & Lewis, 2014; Hassan et al., 2013; Choiruzzad et al., 2012) and modified to reflect the demand of the present study. The instruments comprised of seven (7) determinants, namely: Perceived Benefits of IB, Perceived Knowledge of IB, Perceived Innovativeness of IB, Perceived Religious Promotion, Perceived Threat of Violence, Customers Attitude towards IB and Readiness to Comply with Sharia. Intention to adopt IB was the main dependent variable (constant). The detail measurement items for each of the determinants are shown in the Table I, II and III (item loading and cross loading).

The research instruments used in this study were previously piloted prior to the actual survey using 10% of the estimated sample size of 600. Each of the three sub-groups was assigned 200 sample size. The 200 sample size was regarded as adequate since it's argued that sample size of 150 and above was enough for meaningful statistical analysis (Saunders et. al., 2012). This was carried out to address the following: Face validity, construct validity and content validity. The objective of the study was explained to the participants after which consent forms were used to seek their permission. All the participants were assured of anonymity and confidentiality of their responses. The study made use of 5-point Likert was used because it has strong predictive power like 7-point, 9-point and 11-point likert scales Danaher and Haddrell (1996) cited in Mbawuni and Nimako (2017). The 5-point likert scale ranges from strongly

disagree to strongly agree which were respectively coded 1 to 5. The questionnaires covered the following key constructs as shown in Figure 1: Perceived Benefits of IB, Perceived Knowledge of IB, Perceived Innovativeness of IB, Perceived Religious Promotion, Perceived Threat of Violence, Customers Attitude towards IB, Readiness to Comply with Sharia and Intention to adopt IB.

In this the Structural Equation Modelling (SEM) and Smart-Partial Least Square (PLS) software 3.0 was employed to develop a model, analyze the survey data and testing of hypotheses (Ringle et al., 2005). Due to its distribution-free assumption, the predictive focus and the explanatory model development approach for understanding the determinants of IB adoption, PLS-SEM was chosen to be appropriate (Chin, 2010). In determining the sample size for PLS-SEM, the rule of ten was applied, as suggested by Hair et al. (2011). This rule suggests that the minimum sample size should be ten times the highest number of structural paths, directed at a latent construct at a time (Hair et al., 2011). The highest number of structural paths directed at a latent construct (institutional support) at a time in our proposed model was seven (7). Hence, seven multiplied by ten gives 70 cases for minimum sample size. Thus, our sample of 600 respondents could be described as adequate sample size. For the estimation of significance of t-values, 500 bootstrap resamples were run (Chin, 2010). A two-step SEM approach was followed, as suggested for PLS-SEM analysis (Hair et al., 2011; Chin, 2010): estimation of the measurement (outer) model before fitting the structural (inner) model. The general form of the linear regression model is specified as:

$$Y_i = \alpha + X_i\beta + \varepsilon_i$$

where:

Y_i – the dependent variables (ATT, ADOPT, COM);

α – the intercept;

β – coefficient of independence variables;

X_i – the independent variables;

ε_i – the error term.

Each of the regression coefficients represents the change in Y relative to a unit change in the respective control variable. The models further take the following:

$$ATTI_i = \alpha + \beta_{1i}(PB) + \beta_{2i}(KNW) + \beta_{3i}(PRO) + \beta_{4i}(THREAT) + \beta_{5i}(INNO) + \varepsilon_i \tag{1}$$

$$ADOPT_i = \alpha + \beta_{1i}(ATTI) + \beta_{2i}(COM) + \varepsilon_i \tag{2}$$

$$COM_i = \alpha + \beta_{1i}(ATTI) + \varepsilon_i \tag{3}$$

where:

PB – Perceived Benefits of IB;

KNW – Perceived Knowledge of IB;

$INNO$ – Perceived Innovativeness of IB;

PRO – Perceived Religious Promotion;

$THREAT$ – Perceived Threat of Violence;

$ATTI$ – Customers Attitude towards IB;

COM – Readiness to Comply with Sharia;

$ADOPT$ – Intention to adopt IB.

4. EMPIRICAL RESULTS AND DISCUSSION

In this the Structural Equation Modelling (SEM) and Smart-Partial Least Square (PLS) software 3.0 was employed to develop a model, analyze the survey data and testing of hypotheses (Ringle et al., 2005). Due to its distribution-free assumption, the predictive focus and the explanatory model development approach for understanding the determinants of IB adoption, PLS-SEM was chosen to be appropriate (Chin, 2010). In determining the sample size for PLS-SEM, the rule of ten was applied, as suggested by Hair et al. (2011). This rule suggests that the minimum sample size should be ten times the highest number of structural paths, directed at a latent construct at a time (Hair et al., 2011). The highest number of structural paths directed at a latent construct (institutional support) at a time in our proposed model was seven (7). Hence, seven multiplied by ten gives 70 cases for minimum sample size. Thus, our sample of 600 respondents could be described as adequate sample size. For the estimation of significance of t-values, 500 bootstrap resamples were run (Chin, 2010). A two-step SEM approach was followed, as suggested for PLS-SEM analysis (Hair et al., 2011; Chin, 2010): estimation of the measurement (outer) model before fitting the structural (inner) model.

Table 7 and Figure 2 presented the regression weight and hypotheses testing. The survey results showed that all the eight (8) hypotheses were confirmed accept PTV for the Muslim sub-group which revealed an insignificant (p-value < 0.198) effect. The model accurately predicted 77%, 42% and 59% respectively for Muslims, Christians and Traditional religion sub-groups attitude towards IB. The proposed model again accurately predicted 39%, 29% and 47% respectively for Muslims, Christians and Traditional religion sub-groups intentions to adopt IB. The strength and consistency of the model had been supported to elucidate attitude towards IB and intentions to adopt IB across different religious groups in Ghana. From the model the PRO had positive and significant effect (β=0.81) on the Muslim sub-group attitude towards IB, followed by significant negative effect for African Religion (β= -0.7) and significant positive (β= 0.09) effect Christians sub-groups. Compliance with Sharia (COM) had positive and significant effects for the Muslims (β=0.89) and African Tradition (β= 0.17) sub-groups intentions to adopt IB but Christians sub-group (β= -0.31) had significant negative effect. PB had significant positive effects on Muslims (β=0.48), Christians (β=0.17) and African Tradition (β=0.17) sub-groups attitude towards IB. PTV had insignificant negative effect on Muslim (β= -0.52) but significant negative effect on Christians (β= -0.43) and African traditional sub-groups (β= -0.34) attitude towards IB. Again, the model results showed that perceived knowledge (KNW) had significant positive effects on African Traditional (β= 0.50) followed by the Muslim (β= 0.25) and the least Christians (β= 0.19) sub-groups attitude towards IB. Moreover, perceived innovation (INNO) had significant positive effect on attitude towards IB with the African Tradition showing the strongest effect (β= 0.47), followed by Muslims (β= 0.36) and Christians (β= 0.31). Attitude (ATT) had significant positive effects on African Tradition (β= 0.46), Muslims (β= 0.32) and the Christians (β= 0.16) sub-groups readiness to comply with Sharia. ATT again had significant positive effects on African tradition (β= 0.61), Muslims (β= 0.24) and Christians (β= 0.14) sub-groups intentions to adopt IB.

The results of the study support previous reports that customer attitude towards IB determines the adoption rates (Mbawuni & Nimako, 2017; Bella et al., 2016; Tipu, 2014; Hassan et al., 2013; Mustafa, 2011; Acher et al., 2010; Ismal, 2010; Akbar, 2008). Mbawuni & Nimako (2017) asserted that customers general attitude impact on their intention to adopt IB products and services within the Ghanaian banking industry. In related work Buchari et al. (2015) postulated that the employees' attitudes and awareness towards the services and products of Islamic banking products and confirmed the employees' standard of awareness and attitudes. Therefore H1 is supported thus ATT had significant positive effects on African tradition (β= 0.61), Muslims (β= 0.24) and Christians (β= 0.14) sub-groups intentions to adopt IB.

The study also found significant positive effects of perceived benefits on attitude towards IB across the three religious groups (Abdiaziz, 2017; AL-Jahri, 2017; Abedifer et al., 2016; AlMaimani et al., 2015; Sulayman, 2015; Choiruzzad et al., 2012; Nathan et al., 2007). Choiruzzad et al. (2012) reported that numerous successes chopped by the banks are traced to the effective roles played the Islamic scholars in the MUI and Islamic organizations such as Nahdhatul Ulama and Muhammadiyah. The Islamic scholars' active involvement in the governance of Islamic economy project has resulted in their current better performance of their banks. Since 1990, the industrial growth of the country has given and strengthens the participation of the Islamic scholar in the governance of Islamic banking and Finance. This is how far the strong connection between the Islamic scholars their states have contributed to the Islamic economy, especially banking and finance. AlMaimani et al. (2015) reported that SMEs are benefitted by Islamic banks. In the midst of several initiatives for Small and Medium Sized Enterprises, it has still been a problem for many entrepreneurs to choose program or initiative, which best fits their business environments, especially in the case of incoming ones. Many development-support services are being rendering by so many organizations and institutions. The Islamic banking concept demonstrates competitive advantage. Therefore, H2 is supported PB had significant positive effects on Muslims (β=0.48), Christians (β=0.17) and African Tradition (β=0.17) sub-groups attitude towards IB.

The study found that KNW had significant positive effects on African Traditional (β= 0.50) followed by the Muslim (β= 0.25) and the least Christians (β= 0.19) sub-groups attitude towards IB. these results corroborate prior studies that Knowledge has influence on attitude towards IB (Mariadas et al., 2017; Mbawuni & Nimako, 2017; Nurdin, 2017; Mahdzan et al. (2015; Abuazom et al., 2013; Abuazom et al., 2013) revealed in their study that the Islamic Bank embarks on knowledge sharing among employees and other motivations like promotion and reward system. Islamic Banks encourage their employees to share knowledge and information in order to reduce risk (risk-weighted assets) of the capital adequacy ratio (CAR). Mudaraba depositors (investment account holders) bear 100% of the credit and market risks of their assets.

Mariadas et al. (2017) reported on the factors shaping the adoption of Islamic Banking in Selangor. Two main factors namely consumers knowledge and consumer satisfaction are revealed in the study. Study conducted in Malaysia, by Mahdzan et al. (2015), revealed the level of understanding of Islamic banking concept as the influential factor in the use of Islamic banks in the country. The study indicated low level of understanding of Islamic banking. Hence little use of the banks. Therefore, H3 is supported. The study found that INNO had significant positive effect on attitude towards IB with the African Tradition showing the strongest effect (β= 0.47), followed by Muslims (β= 0.36) and Christians (β= 0.31). Therefore, H4 is supported. These results lean support to immediate past studies (Mbawuni & Nimako, 2017; Bella et al., 2016; Tipu, 2014) that perceived innovativeness has influence on customers attitude towards IB. Mbawuni & Nimako (2017) in their study on determinants of IB adoption revealed that perceived innovativeness has influence on Ghanaians attitude towards IB. PRO had positive and significant effect (β=0.81) on the Muslim sub-group attitude towards IB, followed by significant negative effect for African Religion (β= -0.7) and significant positive (β= 0.09) effect Christians sub-groups. Therefore, H5 is supported. (Jamshidi et al., 2016; Jaffar et al., 2015; Alam, 2013; Hassan et al., 2013; Butt et al., 2011; Sun et al., 2012; Sufian, 2007). Jaffar et al. (2015) revealed that 'Religion obligation is the influencing factor of attitude, which coincides with Butt et al. (2011) study'. Similarly, Sun et al. (2012) reported the impact of religious affiliation and commitment exhibit on Southeast Asian young adults' willingness to deal with Islamic mobile phone banking. The difference between Muslims and non-Muslims, as well as devout and casually religious Muslims necessitated the religious affiliation and commitment as strategies of segmentation. In a nutshell, the committed Muslims were accustomed to their adoption criteria while casually religious and non-Muslims depended on the utility rational.

The study again found that COM had positive and significant effects for the Muslims ($\beta=0.89$) and African Tradition ($\beta= 0.17$) sub-groups intentions to adopt IB meanwhile Christians sub-group ($\beta= -0.31$) had significant negative effect. The H6 is supported. Compliance with sharia principles had been widely reported as having massive influence with the intention to adopt IB (Mbawuni & Nimako, 2017; Amran et al., 2014; Abd Ghani, 2013; Weber, 2012; Romney & Steinbart, 2012; Wardiwiyono, 2012; Farook, 2011) Islamic banking or Islamic finance or sharia-compliant finance is defined as a financial institution rendering all sorts of banking/financial services in the compliance with sharia law and it operates in commonly in the Islamic economies. Shariah-compliant covers the competency of IMFI's AIS (Romney & Steinbart, 2012; Wardiwiyono, 2012), and track accountability with the aid of IT resources mainly involve the system of loan repayment and disbursement (Weber, 2012; Abd Ghani, 2013). PTV had insignificant negative effect on Muslim ($\beta= -0.52$) but significant negative effect on Christians ($\beta= -0.43$) and African traditional sub-groups ($\beta= -0.34$) attitude towards IB. The H7 is partially supported. Mbawuni & Nimako (2017) reported that perceived threat of violence exerts negative pressure on attitude towards IB as revealed and supported by the present study. The study discovered that ATT had significant positive effects on African Tradition ($\beta= 0.46$), Muslims ($\beta= 0.32$) and the Christians ($\beta= 0.16$) sub-groups readiness to comply with Sharia. The H8 is supported. The results affirm past related studies (Mbawuni & Nimako, 2017; (Bella et al., 2016; Amran et al., 2014; Tipu, 2014; Abd Ghani, 2013; Weber, 2012; Romney & Steinbart, 2012; Wardiwiyono, 2012; Farook, 2011) Islamic banking or Islamic finance or sharia-compliant finance is defined as a financial institution rendering all sorts of banking/financial services in the compliance with sharia law and it operates in commonly in the Islamic economies.

Construct Reliability and Discriminant Validity

Table 4

Construct Reliability and Discriminant Validity - Muslims Sub-group

	INT	ATT	PB	INNO	KNW	PRO	COM	PTV	AVE	CR	Rho-A	Cronbach's Alpha
INT	**0.93**								0.88	0.78	0.79	0.77
ATT	0.09	**0.91**							0.82	0.72	0.76	0.75
PB	1.19	0.53	**0.96**						0.92	0.85	0.71	0.71
INNO	0.41	-0.05	0.51	**0.88**					0.78	0.72	0.73	0.74
KNW	1.10	-0.42	1.28	0.99	**0.93**				0.86	0.73	0.71	0.75
PRO	0.75	-0.15	0.58	-0.06	0.38	**0.95**			0.90	0.73	0.83	0.72
COM	0.09	-0.58	-0.12	-0.57	0.01	0.75	**0.91**		0.83	0.77	0.78	0.78
PTV	0.37	-0.38	0.22	-0.26	0.34	0.84	1.07	**0.89**	0.79	0.84	0.84	0.84

Table 5

Construct Reliability and Discriminant Validity - Christians Sub-group

	INT	ATT	PB	INNO	KNW	PRO	COM	PTV	AVE	CR	Rho-A	Cronbach's Alpha
INT	**0.90**								0.81	0.71	0.63	0.72
ITT	0.29	**0.85**							0.73	0.87	0.90	0.87
PB	-0.44	-0.33	**0.85**						0.72	0.87	0.99	0.87
INNO	-0.14	-0.14	0.47	**0.88**					0.78	0.90	0.73	0.91
KNW	-0.47	-0.73	-0.10	0.00	**0.90**				0.81	0.75	0.89	0.81
PRO	-0.59	-0.27	0.96	0.56	0.03	**0.92**			0.85	0.73	0.88	0.85
COM	-1.47	-0.88	0.29	-0.33	-0.42	-0.11	**0.85**		0.73	0.74	0.81	0.83
PTV	0.57	-0.36	-0.20	-0.07	0.17	-0.09	-0.57	**0.88**	0.77	0.82	0.67	0.81

Table 6

Construct Reliability and Discriminant Validity - African Traditional Sub-group

	INT	ATT	PB	INNO	KNW	PRO	COM	PTV	AVE	CR	Rho-A	Cronbach's Alpha
INT	**0.73**								0.54	0.82	0.84	0.75
ATT	0.36	**0.79**							0.63	0.83	0.53	0.85
PB	0.30	0.51	**0.92**						0.85	0.94	0.90	0.91
INNO	0.05	0.72	0.45	**0.93**					0.87	0.95	0.94	0.93
KNW	0.26	0.56	0.23	0.33	**0.79**				0.63	0.91	0.84	0.87
PRO	-0.06	-0.59	0.55	0.50	0.48	**0.76**			0.58	0.84	0.81	0.75
COM	-0.51	-0.19	0.61	0.01	0.38	0.56	**0.73**		0.54	0.81	0.69	0.73
PTV	0.34	0.63	0.10	0.19	0.43	0.25	0.13	**0.71**	0.51	0.71	0.70	0.71

Notes: Square roots of AVEs are in the diagonal; correlations are below the diagonal; AVE-Average Variance Extracted, CR-Composite Reliability. PB – Perceived Benefits of IB, KNW – Perceived Knowledge of IB,
INNO – Perceived Innovativeness of IB, PRO – Perceived Religious Promotion, PTV – Perceived Threat of Violence, ATT – Customers Attitude towards IB, COM – Readiness to Comply with Sharia and INT – Intention to Adopt IB.
Source: Field Survey, 2017.

Table 7

Path Estimates and Hypothesis Testing

Hypothesis Relationship		Group	Regression weight	Standard Error	t-statistics	p-values	Remarks
H4	INNO > ATT	Muslim Sub-group	0.36	0.18	3.84	0.000***	Supported
		Christian Sub-group	0.31	0.04	2.63	0.010**	Supported
		Afri Trad. Sub-group	0.47	0.47	2.44	0.002**	Supported
H5	PRO > ATT	Muslim Sub-group	0.81	0.13	2.69	0.001**	Supported
		Christian Sub-group	0.09	0.07	-2.49	0.015**	Supported
		Afri Trad. Sub-group	-0.71	0.47	-3.42	0.000***	Supported
H6	PTV > ATT	Muslim Sub-group	-0.52	0.16	-0.76	0.198	Not Supported
		Christian Sub-group	-0.43	0.06	-2.49	0.015**	Supported
		Afri Trad. Sub-group	-0.34	0.37	-0.89	0.000***	Supported
H3	KNW > ATT	Muslim Sub-group	0.25	0.09	2.91	0.005**	Supported
		Christian Sub-group	0.19	0.04	2.84	0.009**	Supported
		Afri Trad. Sub-group	0.50	0.16	6.16	0.002**	Supported
H2	PB > ATT	Muslim Sub-group	0.48	0.11	1.93	0.057*	Supported
		Christian Sub-group	0.07	0.03	4.63	0.000***	Supported
		Afri Trad. Sub-group	0.17	0.32	0.52	0.000***	Supported
H7	COM > INN	Muslim Sub-group	0.89	0.06	17.78	0.000***	Supported
		Christian Sub-group	-0.31	0.07	-3.00	0.003**	Supported
		Afri Trad. Sub-group	0.17	0.32	0.52	0.000***	Supported
H1	ATT > INN	Muslim Sub-group	0.24	0.04	4.69	0.000***	Supported
		Christian Sub-group	0.04	0.35	4.36	0.000***	Supported
		Afri Trad. Sub-group	0.61	0.28	2.13	0.033**	Supported
H8	ATT > COM	Muslim Sub-group	0.32	0.14	2.69	0.000***	Supported
		Christian Sub-group	-0.16	0.12	-6.21	0.000***	Supported
		Afri Trad. Sub-group	0.46	0.27	2.63	0.001**	Supported
R² ATT		Muslim Sub-group	0.77				
		Christian Sub-group	0.42				
		Afri Trad. Sub-group	0.59				
R² INN		Muslim Sub-group	0.39				
		Christian Sub-group	0.29				
		Afri Trad. Sub-group	0.47				

5. CONCLUSIONS

The general purpose of the study was to examine critical determinants of Islamic Banking (IB) adoption among different religious groups. The study drew on from the Theory of Planned Behaviour, Diffusion of Innovation, Theory of Reasoned Action and Technology Acceptance Model on IB adoption. The study revealed a moderate predictive power thus 77%, 42% and 59% respectively for Muslims, Christians and Africa Traditional religion sub-groups attitude towards IB. The study again accurately predicted 39%, 29% and 47% respectively for Muslims, Christians and Traditional religion sub-groups intentions to adopt IB. ATT had significant positive effects on African tradition, Muslims and Christians sub-groups intentions to adopt IB. The PB had significant positive effects on Muslims, Christians and African Tradition sub-groups attitude towards IB. The study found that KNW had significant positive effects on African Tradition followed by the Muslim and the least Christians sub-groups attitude towards IB. The study found that INNO had significant positive effect on attitude towards IB with the African Tradition showing the strongest effect followed by Muslims and Christians. The PRO had positive and significant effect on the Muslim sub-group attitude towards IB, followed by significant negative effect for African Religion and significant positive effect Christians sub-groups. The study again found that COM had positive and significant effects for the Muslims and African Tradition sub-groups intentions to adopt IB meanwhile Christians sub-group had significant negative effect. The PTV had insignificant negative effect on Muslim but significant negative effect on Christians and African traditional sub-groups attitude towards IB. The study discovered that ATT had significant positive effects on African Tradition, Muslims and the Christians sub-groups readiness to comply with Sharia.

These results pinpoint the need for formalization and demystification of IB to attract different religious groups. However, these results should be taken as preliminary since counterfactual analysis (CFA) across entire Ghana is required to validate IB implementation and adoption. Although these results support most previous studies further empirical research is proposed to replicate this study across other Non-Islamic States in the Sub-Sahara Regions.

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