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PERCEPTION STUDY ON THE EFFECTS OF INTEREST-FREE FINANCING OF ISLAMIC BANKING ON INFORMATION ASYMMETRY AMONG ENTREPRENEURS: EVIDENCE FROM NIGERIA

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ABSTRACT

This study investigates the perception of the relationship between interest-free financing contracts of Islamic banking as an incentive to provide voluntary information disclosure among entrepreneurs in Nigeria thereby reducing the incidence of information asymmetry. Questionnaires were used as an instrument of data collection. Multivariate Logistic Regression Model was employed to estimate the model. The result showed a positive and significant relationship between the incentive of interest-free financing contracts and motivation to give voluntary information disclosure, thereby minimizing the incidence of asymmetric information. Similarly, the finding also indicates that level of education, understanding and awareness of the procedures of obtaining credit facilities from banks (both conventional and non-interest banks) has a significant relationship with the entrepreneurs' motivation to give voluntary information disclosure to the banks concerning the financing contracts obtained from Islamic banks. However, the religious belief of the entrepreneurs did not indicate a significant relationship with their decisions to have a banking relationship with Islamic banks but was largely motivated by economic factors and business decisions in their relationship with the banks and their motivation to give voluntary information disclosure. This study, unlike most previous studies on Islamic banking in Nigeria, investigates the perception of entrepreneurs of the relationship between the incentive of interest-free financing contracts and motivation to volunteer greater information. The policymakers can, therefore, leverage the positive perception of entrepreneurs of the incentive of interest-free financing, to reduce information asymmetry in Islamic banking, and promote the establishment of more Islamic banks through appropriate legislations and regulations that can ensure enabling operating environment. This would, in turn, promote financial inclusion and reduce the widening funding gap experienced by small and medium enterprises in the country.

Keywords: Asymmetric information, Islamic banking, and interest-free financing.

INTRODUCTION

Banks all over the world and throughout history have been agents of economic growth and development. Banks function not only as agents of financial intermediation but, more importantly, as a link in the monetary transmission process. Banks, as catalysts for economic development, mobilize funds from surplus spending units and transmit them to deficit units. However, despite their strategic importance in the attainment of national economic goals, banks operate in an environment characterized by risk and uncertainty (Klein, 1971). Moral hazards and adverse selection resulting from asymmetric information are among the significant risks banks often face in their financial intermediation functions. Chick (1992) asserts that the financial markets in which banks operate are inherently different from the markets for goods; the demand for loans is always characterized by moral hazard. Therefore, non-performing credit resulting from moral hazard and information asymmetry had been a significant source of credit risk faced by banks in the course of their lending activities.

Conventional banks have, over the years, devised strategies to minimize the impact of information asymmetry on the quality of their risk assets. Strategies such as critical assessment of borrower's character, which is a critical component of the five C's of credit traditionally used in credit request evaluation. Beaulieu (1996) posited that character is at the centre of the lending decision by banks, as borrowers' character affects their presentation of, or response to, all other information. He further illustrated the fact that a borrower who fails to keep a promise to provide specific financial information would be classified as a character deficit, which sends a negative signal towards a lack of integrity, reliability, and honesty. Therefore, a character deficit is at the root of information asymmetry. Also, the use of high-interest rates on loans to high-risk customers and demand for collateral as securities for such loans have become strategies of credit rationing in the debt market.

Collateral is a critical contracting tool employed by lenders to reduce problems associated with asymmetric information (Berger, Espinosa-Vega, Frame, & Nathan, 2007). These strategies have often resulted in screening out many potential good businesses, particularly small and medium-sized enterprises (SMEs) and thereby denying them access to investable funds (Bartlett & Bukvic, 2001; Olawale & Garwe, 2010; Steinerowska-Streb & Steiner, 2014). The result of the inability of most entrepreneurs to access loans at very high interest from conventional banks tends to cripple their capacity to undertake profitable investments. Where, however, some entrepreneurs borrow at high-interest rates, and they often report sub-optimal performances which are largely the result of poor information disclosure. The effect of this is to further create difficult access to the credit market by small and medium enterprises. This continues to thwart the efforts of many developing countries to encourage entrepreneurship, reduce unemployment, promote financial inclusiveness, and thereby achieve economic growth and development. Karlan and Zinman (2009) provide "unique empirical evidence of significant, specific information asymmetries in the consumer credit market, and thus help explain the prevalence of credit constraint even in a market that specializes in financing high-risk borrowers at very high rates". Therefore, lenders often charge high interest to compensate for the existence of information asymmetry, particularly among small and medium-sized enterprises. The entry of Islamic banking into the financial market, however, is gradually changing the perception of entrepreneurs toward information disclosure.

Islamic banking: An overview

An Islamic bank, like its conventional counterpart, is a financial intermediary. It mobilizes funds from surplus units for the use of the deficit units. Historically, the development of Islamic finance can be traced to the time of the Prophet Muhammad (p.b.u.h.) (ISRA, 2013). At the time of the Prophet, the principles of justice, fairness, and equitable economic and financial relationship, derived from the Qur'an and Sunnah (sayings and practices) of Prophet Muhammad had been established as the cardinal rules of engagement among the members of the emerging Muslim Ummah (community). Islamic banks,

like their conventional counterparts, act as intermediaries between savers and investors. However, unlike the conventional banking system,

The principles of Sharia primarily guide Islamic banking. Notably, Islamic banking differs from the conventional banking system in four unique ways. Prohibition of interest (riba), profit and loss sharing arrangement, the prohibition of a game of chance (maysir) and speculation (ghara), and prohibition of financing of activities such as pornography, alcohol, and all kind of illegal activities are the four cardinal principles of Islamic banking. Hussain, Shahmoridi, and Turk (2015) considered equity, participation, and ownership as the fundamental principles that govern Islamic finance. Therefore, Islamic finance is considered to be an asset-based financial system because financing can only be granted for productive activities. Hussain et al. (2015) further argued that if these principles of Islamic finance are complied with, the incidence of moral hazard would be significantly limited.

The nature of fiduciary responsibility in the Islamic financial system differs from conventional banking because, in Islam, an intermediary "passes through" the performance of its assets to the investors or depositors on its liability side (Askari et al., 2012). The core principles of Islamic finance are the promotion of risk-sharing, entrepreneurship, and social and financial inclusiveness. The risk-sharing and asset-based financing nature of Islamic financing and its potential contribution to the growth and inclusive prosperity have considerable merit, particularly considering the mounting evidence of adverse effects of debt and leverage on the economy (World Bank & IDBG, 2016, p.2).

The history of modern Islamic banking, however, can be traced to the development of Islamic banking in Egypt and Malaysia in the early 1960s (ISRA, 2013). The establishment of MitGhamr Saving Bank in the small town of MitGhamr in Egypt in 1963 and Lembaga Tabung Haji in Malaysia also in 1963 provided an impetus to Muslims in other counties to establish financial institutions that can screen their wealth from riba (interest) and non-permissible transactions. Lembaga Tabung Haji was incorporated in 1963 as a financial institution to help Muslims to save regularly for the pilgrimage to Mecca. MitGhamr, on the other hand, was established as a rural savings bank providing funds to its customers based on profit and loss sharing arrangements.

In the 1970s, the development of Islamic banking received a significant boost in the countries of the Middle East and North Africa (MENA) by their adoption of Islamic finance and banking as significant vehicles for economic growth and development. Countries like the United Arab Emirates (UAE), and Bahrain adopted the development of Islamic finance as a critical component of their national development strategic plans. Similarly, Islamic banking made significant growth in the Indian Sub-continent of India and Pakistan. The industry-led approach to development has been a major characteristic feature of Islamic finance in these regions (Hassan, 2014).

Islamic finance has also witnessed phenomenal growth in many parts of Europe, America, and Sub-Sahara Africa, including Nigeria. For example, Islamic banks are in operation in countries such as Denmark, France, Luxembourg, Switzerland, the United Kingdom, South Africa, and Nigeria (Hussain et al., 2015). Western banks such as Citibank, Standard Chartered Bank, UBS, and HSBC are vital players in the Islamic financial market (ISRA, 2013). Figure 1 captures the global presence of Islamic financial institutions, particularly in non-Muslim countries.

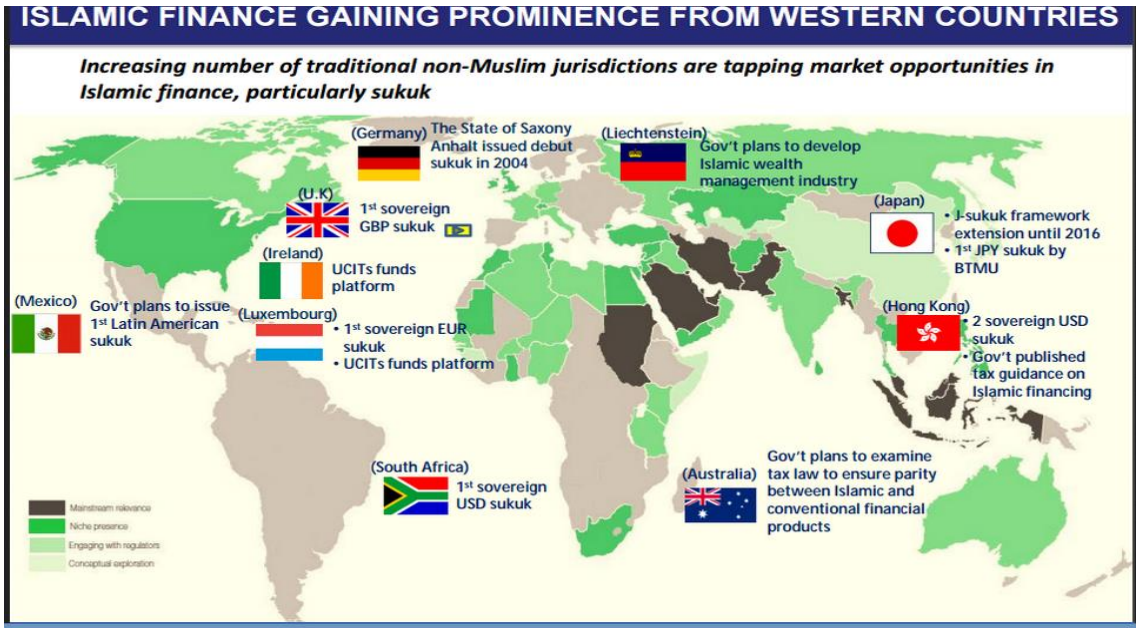

Figure 1. *Islamic finance in Western Countries. (Adopted from Lifegate.com)*

As Islamic finance continues to expand globally, the value of its assets reached US$2.88 trillion by 2019 (Islamic Corporation for the Development of the Private Sector, 2020).

Islamic banking in Nigeria

Islamic banking and finance's entry into the Nigerian financial system is a recent phenomenon. At present, there are three (3) licensed full-fledged Islamic banks in the country. These are Jaiz Bank Plc, TAJ Bank Limited and Lotus Bank Limited. Islamic banks in Nigeria are referred to as "Non-Interest Banks". This is about the legal restriction on the use of certain names such that no licensed bank in Nigeria shall bear a name that includes "Christian or Islamic bank (BOFIA 2020, Sect (43), sub-sec (1) (a)ii). The first licensed non-interest Bank, Jaiz Bank Plc, was granted an operating license in 2011 and began full operations in 2012. However, the history of Islamic banking can be traced to Habib Nigeria Bank Limited and Ahmed Zakari company in the mid-1990s (Obiyo, 2008). Taj Bank makes the second full-fledged non-interest bank in the country. In May 2021, Lotus was also licensed to operate non-interest banking in Nigeria. Along these three non-interest banks are other conventional banks operating Islamic windows such as Sterling Bank, Stanbic IBTC Bank and Sun Trust Bank Nigeria limited. There are also other Islamic financial institutions in the country operating in the Islamic capital market and microfinance banking sub-sector.

Nigeria is grossly underbanked. According to (Demirguc-Kunt et al. (2017), "China has the world's largest unbanked population, followed by India (190 million), Pakistan (100 million), and Indonesia (95 million). Indeed, these four economies, together with three others — Nigeria, Mexico, and Bangladesh — are home to nearly half the world's unbanked population". Nigeria, therefore, is in dire need of focused expansion in financial institutions, particularly those that can provide banking services.

Nigeria, therefore, presents a huge market and opportunities for a more significant number of Islamic financial institutions. Nigeria is a pluralistic society with multicultural ethnic and religious diversity. This diversity often drives the dynamics of ethno-religious and political allegiances among the people. Nevertheless, the economy and economic activities of the country remain largely immune to the negative impacts of the ethno-religious prejudices in the country. The demography of the Nigerian population

presents a very huge potential market for Islamic banking to thrive. The Islamic banking system, though, late incoming is gradually taking a position in the Nigerian financial landscape. Since the entry of Islamic banking into the Nigerian banking industry, however, studies examining the attitude of Islamic banking customers towards voluntary information disclosure have been very scanty. The question this paper proposes to answer is whether interest-free financing of Islamic banking would elicit incentives for investors (borrowers) to minimize the incidence of moral hazard arising from information asymmetry in their business and financial relationship with Islamic banks.

LITERATURE REVIEW

Theoretical Review

Asymmetric information and Islamic banking

In the conventional financial system, every participant in a financial transaction either as a borrower or lender assumes a relative negotiating power depending on the level and the strength of information advantage available to him in respect of a particular transaction. In the conventional financial market, information is a crucial instrument that is often manipulated by various economic agents to optimize their benefits, usually to the disadvantage of their partner in a business transaction. Asymmetric information creates incomplete information to parties in a contractual relationship, which describes a phenomenal consequence of an agency relationship.

Sandmo (1999) considered the theory of asymmetric information as a new development in the economics of uncertainty. Sandmo (1999) further argued that the theory of information asymmetry focuses on the type of uncertainties where individuals have different types of information, the typical situation being that individuals have private information about their characteristics that are not directly available to other people (p, 166). Sandmo then gave the example of a situation in which asymmetric information can exist in a relationship between employers and employees in which employees have information about their skills and preferences that are not observable by the employers.

Akerlof (1970), in his study of the market for lemons (used cars), noted that the owner of a car knows more about the car than any potential buyer. The used car market inevitably involves asymmetric information. Akerlof (1970) further argues that awareness of their relative ignorance would lead potential buyers to assume that any used car would have a high probability of being a low-quality lemon. This would cause them to bid down the price of used cars in general, and this would drive the most high-quality used cars out of the market. According to the Akerlof theory of asymmetric information, and later by Spence and Stiglitz, informational advantage creates the possibility of adverse selection and moral hazard.

Information asymmetry deals with differences in information at the disposal of different parties to a financial contract (Mishkin, 1990). Since information is not freely available in the same proportion to all stakeholders in a decision process, in a capitalist financial system (incidence of asymmetric information), then come the risk and uncertainty in business and financial transactions. To minimize the impact of these risks and uncertainties, lenders, in addition to the reason for making income, charge interest rates as a price for parting with their money and compensation for the risk inherent in a business or associated with a borrower. This is, however, at variance with the Islamic principles of full information disclosure and risk-sharing in business transactions.

Mishkin (1990) further argues that borrowers have an informational advantage over lenders because borrowers know more about the business to undertake than the lenders. Mishkin further asserted that adverse selection leads to the inability of lenders to distinguish between borrowers of good quality and

bad quality. Lenders, therefore, strike a balance by making loans at an interest rate that reflects the average quality of the good and bad borrowers. Therefore, if lenders cannot discriminate between the poor quality borrower and good quality borrowers, they may result in cutting down the number of loans he makes, thereby decreasing the supply of credit, leading to a substantial decline in investment and aggregate economic activities (Mishkin, 1990).

Armendariz and Morduch (2010) argue that the bank's incomplete information about poor borrowers and the borrower's lack of collateral to offer as security to banks explain why banks find it difficult to finance small businesses. Armendariz and Morduch (2010) also argue that due to the problem of adverse selection, banks often cannot quickly determine that customers are more likely to be risky than others. To compensate for the probability of default risk, banks would like to charge riskier customers more than the right customers. However, because banks find it difficult to determine this, then they charge an average interest rate on all customers. This, however, tends to drive good customers out of the credit market. Armendariz and Morduch (2010) further argue that banks also face the problem of moral hazard, which arises because banks cannot ensure that customers make the full effort required for their project to be successful. The study then concludes that the problems of adverse selection and moral hazard could potentially be eliminated if banks had costless information on their customers and were able to enforce contracts.

Agency creates asymmetric information leading to the problems of adverse selection and moral hazard between the agent (borrower) and principal (lender). As a result of the moral hazard effects, there is the possibility that the agent's utility may not maximize the utility of the principal (lender). Therefore, the effects of asymmetric information are usually addressed by incorporating incentive structures in the contract for the complete sharing of information (minimizing the effect of information asymmetry) and for the agent to behave in a way to maximize returns for the principal (lender). To achieve this objective function of maximizing the lender's return, and thus, reducing the effect of asymmetric information in financial contracts. This impact of incentive in the contract was the focus of Laffont and Martimort's (2001) studies. According to Laffont and Martimot (2001), the collective aspect of contracting settings is the possibility of an information gap (information asymmetry) between agents and principals with dire consequences for the attainment of the objective of the contract. They further argue that contracts must be designed in a way to elicit the agent's private information through some incentives to reach an efficient use of economic resources.

The presence of information asymmetry in the loan/financing market has been well established. Similarly, the presence of information asymmetry in Sharia financing has also been established (Jouaber & Mehri, 2011; Prasetyo & Marselina, 2020). In contrast, this paper proposes to test the hypothesis that:

H1 Interest-free finance will serve as an incentive to customers of Islamic banks to give voluntary disclosure about their business transactions.

Theory of Planned Behaviour

The hypothesis that interest-free finance will elicit positive behaviour from Islamic bank customers to give full information disclosure about their business transactions can also be anchored on the Theory of Planned Behaviour (TPB) and Theory of Reasoned Action (TRA).

Conner (2020) posits that the Theory of Planned Behaviour and the Theory of Reasoned Action are the key determinants of an individual's actions or behaviour. He argued that behavioural intention manifests a person's motivation influencing his conscious plan, and his decision to act. Also, Ajzen (1991) cited in Quintal, LLee & Soutar (2020, p798) argued that the Theory of Planned Behaviour suggests that people are likely to carry out a particular type of behaviour if they believe: (1) such behaviour will lead

to the outcome they value, (2) their important referents will value and approve of their behaviour and (3) they have the necessary resources, abilities and opportunities to perform such behaviour. Similarly, the Theory of Reasoned Action predicts that a consumer's behaviour is influenced by the attitude which explains his purchase behaviour (Yadav, et al., 2015). These theories, therefore, explain the decision of Islamic bank customers not only to patronize the banks but be motivated by the outcome they value (i.e. of easy access and interest-free financing of Islamic banking) to volunteer full information about their business.

Every economic agent is rational in his behaviour and would always make decisions that would maximize his benefit. To achieve this, lenders in conventional banking adopt the principle of risk transfer as an instrument of financial management. The principle of risk transfer has always led lenders to believe that problems consequently faced by borrowers in the process of applying the fund borrowed are the sole responsibility of the borrowers. This principle creates an opportunity for borrowers to indulge in asymmetric information. This, however, is in total contrast to the fundamental principle of risk-sharing in the Islamic economic and financial system.

Risk sharing is a core fundamental principle of Islamic economic and financial relationships. Askari et al. (2012) assert that risk-sharing finance is trust-intensive and that Islamic finance is a financial system structured on risk-sharing. This means that since trust is the foundation of risk-sharing in Islamic finance, the incidence of information asymmetry should be very low. Askari et al. further stated that Islamic finance discourages risk shifting or risk transfer, which characterize interest-based debt financing.

An interest-based debt financial system is the bedrock of capitalist economies (Askari et al., 2012). Espousing the thought of Akerlof (1970), Stiglitz (1974), Stiglitz and Weiss (1983), and Askari et al. (2012) further state that because of agency problems creating asymmetric information, there is the possibility that an agent's utility maximization may not maximize the utility of his principal. The study then concludes that agency problem is usually looked into by the incorporation of incentive structure in the contract for the complete sharing of information and for the agent to behave in a way to maximize rewards for the principal.

Theory of Financial Intermediary

The Theory of Financial Intermediary states that financial intermediaries such as banks operate in the financial market by taking deposits and channelling the same to the credit market as loans to investors. According to Li (2021), financial intermediaries perform five basic functions such as "facilitating payments and settlement, promoting financing, reducing transaction costs, improving information asymmetry, and transferring and managing risks". Similarly, Levine, Loayz, and Beck (2000) examined the roles of financial intermediaries and conclude that financial intermediaries in the process of savings mobilization and lending activities lower transaction costs, manage risk and facilitate long-run economic growth. Li (2021) further states that financial intermediaries facilitate capital efficiency, promote economic activities, and assist in the optimal allocation of capital for productive activities.

Empirical literature review

The World Bank and IDBG Global Report on Islamic finance (2016) revealed the under-development of risk-sharing instruments as a significant disincentive for investing in businesses considered to be of high risk such as micro, small, and medium enterprises. The study concludes that micro, small, and medium-sized enterprise sectors of the economies of most developing countries remain mostly untapped. World Bank and IDBG (2016) recommended that governments and relevant authorities should remove barriers such as a lack of proper definition of property rights and appropriate tax treatment to boost the attractiveness of risk-sharing contracts of Islamic banking.

The fundamental principle of Islamic finance is the risk and profit-sharing feature of Islamic finance transactions such as *Mudarabah* or *Musharakah* contracts (Ahmed, 2010). Ahmed further argues that it is this profit and risk-sharing feature of Islamic finance transactions that requires a high level of disclosure and transparency in the Islamic finance system. Islamic finance emphasizes a strong linkage between the issue of financial stability and social responsibility. Fundamentally, therefore, according to Ahmed's (2010) study in Islamic finance, transactions must be real to give and take delivery. Unlike in the conventional financial system, the associated risk with it cannot be transferred but shared between the parties. Ahmed (2010), therefore, concludes that because interest-based tractions are prohibited, Islamic finance is anchored on trade activities that generate fair and legitimate profit.

Islamic banking and finance have emerged as an essential component of the financial system of many countries, not only the majority of Muslim countries but also in Western countries. Awan and Bukhari (2011) investigated the criteria for selecting Islamic banks against conventional banks in Pakistan. With a sample of 250 respondents consisting of Muslims and non-Muslims, the study finds that religious belief as an influential factor plays a less significant in their choice of banks to patronize. The study concludes that the customers were significantly motivated primarily by product features and the quality of service offered by Islamic banks. The study did not, however, consider the issue of information disclosure to the banks by the customers.

There have several studies that attempt at investigating the factors that shape the attitude and behaviour of banking customers, particularly towards Islamic banking (Al-Hunnayan & Al-Mutairi, 2016; Saiti, Ardo & Yumusak, 2019). Al-Hunnaya and Al-Mutairi (2016) examine the factors that motivate customers to bank with Islamic banks in Kuwait. The study finds the quality of service and low service charge as the significant factors that influence the attitude of customers in Kuwait to patronize Islamic banks. Similarly, Saiti, et al. (2019) investigate the factors that influence the choice of Islamic banks by non-Muslim customers in Nigeria. The study finds that Non-Muslim customers who patronize Islamic banks were influenced by the subjective norm, perceived behavioural control and attitude. Subjective norm is the attitude to take a decision based on the expected value derivable from such a decision. The effect of interest-free financing contracts as a factor that can influence the behaviour of Islamic bank customers to volunteer full information remains largely unexploited. This, therefore, provides a critical gap that needs to be filled.

METHODOLOGY

This study aims to investigate the effects of business decision motivation rooted in profit objectives on the probability of the interest-free characteristics of Islamic financing serving as an incentive to reduce information asymmetry by Islamic bank customers. The study obtained the view of the banking public in Nigeria using the questionnaire as the survey instrument. The study, therefore, investigates whether interest-free finance constitutes an incentive to Islamic bank customers to enhance voluntary disclosure of information about the performance of their businesses, thus minimising the effect of information asymmetry. The study adopts a Multivariate Logistic Regression Model (MLRM) to explore whether a business decision has a relationship with the motivation of interest-free financing opportunities.

Generally, logistic regression is more appropriate for testing hypotheses about relationships between a categorical outcome variable and one or more categorical or continuous predictor variables (Peng et al., 2002). Peng, et al. (2002) further state that the central mathematical concept that underlies logistic regression is the logit – the natural logarithm of an odds ratio. The logistic model, therefore, predicts the logit of *Y* from *X*. The odds ratio of non-interest-bearing financing of Islamic banks serving incentive to reduce information asymmetry is represented in the model by (INC). Also, the independent variables in the model are economic factors represented by easy access to credit (CR), religious belief represented

by religion (RG) and level of the knowledge and awareness of the credit processes and procedures in both conventional and Islamic banking by the respondents is represented by (LE).

Data collection

Data used for the study were obtained from primary sources with the aid of a questionnaire. The Likert-type questionnaire was designed to collect data from respondents. The scoring technique for the responses was also the Likert scale scoring device.

Population and sampling size

The population of this study is made up of entrepreneurs (borrowers) who are in a financial relationship with banks in Nigeria. It is important to note that in Islamic finance, there is no such thing as a borrower or a lender relationship. The fundamental principle in Islamic finance is the entrepreneur/investor-capital provider relationship. The capital provider (*Rabul Mal*) and the entrepreneur or fund user (*Mudharib*) are in a business relationship under the *mudharabah* or *musharakah* contracts. Therefore, within the context of this study, entrepreneurs are to be understood as borrowers in the context of conventional banking. The entrepreneurs are customers with business accounts with the operating commercial banks in Nigeria.

Since the samples were from both Islamic and conventional banks, a combination of stratified sampling and stage sampling techniques were applied to select the banks from which respondents were finally selected. From each of the banks, questionnaires were administered to 20 customers selected randomly, giving the total number of sampled customers to be 200.

The Model

Logistic regression is a predictive modelling technique that is used when the dependent variable is binary categorical. That is, it can take only two values 1 and 0. The logit is the natural logarithm (ln) of odds of y, and odds are the ratios of probabilities (**π**) of ***Y*** happening (i.e., entrepreneur been motivated by interest-free financing incentive to minimize information asymmetry) to probabilities (1- **π**) of ***Y*** not happening (i.e., entrepreneur not motivated by interest-free financing incentive to minimize information asymmetry). This study adopts the model (Peng et al., 2013). The simple logistic model has the form:

$$\text{Logit}(Y) = \text{natural log (odds)} = \ln\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta x \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \ (1)$$

π = *probability (Y = outcome of interest/X = x*

$$\textit{a specific value of } X = \frac{e^{\alpha+\beta x}}{1+e^{\alpha+\beta x}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \ (2)$$

Where π is the probability of the outcome of interest, α is the Y-intercept, β is the regression coefficient, and e = 2.71828 is the base of the system of the natural logarithm.
Extending equation (1) into a multivariate model, we have equations (3)

$$\text{Logit}(Y) = \ln\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta_1 X_1 + \beta_2 X_2 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \ (3)$$

Therefore,

$\boldsymbol{\pi}$ = *probability (Y = outcome of interest/*$X_1 = x_1, X_2 = x_2$

$$= \frac{e^{\alpha + \beta_1 X_1 + \beta_2 X_2}}{1 + e^{\alpha + \beta_1 X_1 + \beta_2 X_2}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4)$$

Where $\boldsymbol{\pi}$ is once again, the probability of the outcome of interest, α is the Y-intercept, ***βs*** are ***regression*** coefficients, and Xs are the set of predictors. α and ***βs*** are usually estimated by the maximum likelihood (ML) method.

The null hypothesis underlying the model states that all ***βs*** equal zero**.** A rejection of the null hypothesis implies that at least one ***β*** does not equal zero in the population, which means that the logistic regression equation predicts the probability of the outcome better than the mean of the dependent variable.

The results of the analysis

The result shows the logistic model in equation (5).

Predicted logit

$$e\,INC = -2.3458 + (2.4794) *CR + (0.2212) *RG + (2.1275) *LE \ldots\ldots (5)$$

Where INC indicates the odds (whether) of an entrepreneur being motivated by incentive (INC) of easy access and non-interest-bearing financing of Islamic banking to voluntarily give full information about the performance of their businesses and thereby reduce the incidence of moral hazard and information asymmetry.

CR represents the real economic reason (i.e. easy access to credit and interest-free financing) for obtaining financing as a critical variable in determining whether an individual will be motivated to volunteer full information about the performance of their businesses.

RG also indicates the religious belief of an individual and its influence in taking economic decisions

LE represents the level of awareness and understanding of individuals of the processes and procedures required for obtaining financing from both conventional and Islamic banks.

Table 1
Logistic regression analysis of incentive (INC) of interest-free financing of Islamic banking to reduce information asymmetry

Predictor	*β*	*SE β*	Wald's test X^2	*df*	*P*	*odd's ratio*
CR	2.4794	0.4954	25.0496	1	0.0000	11.934
RG	0.2212	0.4508	0.24077	1	0.6237	1.2476
LE	2.1275	0.5729	13.7893	1	0.0002	8.3941
C	-2.3458	0.6537		1	0.0003	NA

Test statistics	X^2	*df*	*p*
Overall model evaluation			
Likelihood ratio test	70.4489	3	0.000
Wald's test	45.24918	3	0.0000
Goodness-of-fit test			
Hosmer & Lemeshow	6.2235	6	0.3986

According to the model as presented in Table 1, the log of odds (i.e., odds ratio) of an entrepreneur's pure economic reason (CR) with a coefficient of 2.4794, is positively and significantly ($p < 0.05$) related to the incentive of access to non-interest financing of Islamic banking (INC) to reduce moral hazard and information asymmetry.

Contrary to the established theory of the existence of asymmetric information in the loan/financing market, the finding of the study that entrepreneurs were motivated by interest-free financing of Islamic banking to reduce the incidence of information asymmetry is supported by the Theory of Planned Behaviour.

Similarly, (LE) representing the level of knowledge, awareness, and understanding of the processes and procedures of obtaining credit from both conventional and Islamic banks is also positively significant ($p<0.05$) with a positive coefficient of 2.1275. By this result, the study concludes that the level of education, understanding and awareness of procedures of obtaining credit facilities from banks (both conventional and non-interest banks) has a significant relationship with the entrepreneurs' motivation to give voluntary information disclosure to the banks for the financing contracts obtained from Islamic banks.

For the level of knowledge and awareness of the processes and procedures (LE), the odds of influencing the decision of the entrepreneur to be motivated by the non-interest-bearing financing to reduce moral hazard and asymmetry are also positive and significant ($p < 0.05$). This means that the higher the level of awareness and understanding of the processes and procedures which tend to make obtaining financing in conventional banking very demanding and challenging, the higher the motivation for non-interest financing of Islamic banking. Furthermore, the risk-sharing principle of Islamic banking in sharp

contrast to the risk transfer of conventional banking creates an additional incentive for Islamic finance products and, therefore, elicits voluntary disclosure of more excellent information and thereby minimizing the incidence of moral hazard and information asymmetry.

While the religious belief (RG) of the respondents, though, positive but not significant. This means that for this model, access to credit (pure economic or business decision) and the level of awareness by the entrepreneur of the financing philosophies of the two types of banking are critical factors in their decision whether to seek credit requests from Islamic banking. Therefore, for most business-focused individuals, pure economic decisions relating to how to source capital and at what cost usually overshadow all other biases.

Furthermore, a result indicates, that RG (religious belief) though not significant ($p > 0.05$), is positively related to the odds of being motivated by non-interest-bearing financing of Islamic banking to provide further disclosure of their business performances. This means that there exist some levels of bias based on religious sentiment; it is certainly not a dominant factor when entrepreneurs are confronted with funding decisions. This result, though, has a positive coefficient and is not significantly related to the entrepreneur's decision concerning voluntary information disclosure. Nevertheless, it can still be concluded that the religious belief of the investors using Islamic financing contracts could have some level of relationship with his attitude towards honesty and good character as the two dominant religions (Islam and Christianity) in the country preach trustworthiness. This is more so with the Muslim respondents who believe in Sharia as the divine law guiding all aspects of their lives. It is, however, very instructive to note that despite the rivalry usually exhibited by the two major religions in the country, economic factors shape the decision of the entrepreneurs in the manner they conduct their businesses.

The result of the logit regression, therefore, indicates that the higher an entrepreneur considers non-interest-bearing financing as a critical factor in his business decision variables, the higher will be his readiness to voluntarily render greater disclosure about the performance of his business to the fund provider.

Diagnostic tests

Wald's test, likelihood ratio test, and Hosmer & Lemeshow test were performed to carry out the overall model evaluation and examine the "goodness-of-fit" of the model. Wald's test result shows the overall goodness of the model, while the likelihood ratio test confirms that there is neither variable omission nor variable redundancy in the model. The Goodness-of-fit statistics of Hosmer-Lemeshow (H-L) give an X^2 (6) of 6.2235 but not significant at ($p > 0.05$). This suggests that the model fits the data very well. This means that the null hypothesis of a good model cannot be rejected.

The statistical significance of the individual coefficients was tested using the Wald chi-square statistic. The result of the test shows economic factors in terms of easy access to financing from the Islamic banking system and level of knowledge and awareness were significant predictors ($p < 0.05$) of incentive to provide further information disclosure about their business and thereby minimize the incidence of moral hazard and information asymmetry.

CONCLUSION

The study examined whether non-interest financing of Islamic banking can be a strong incentive to entrepreneurs seeking financing to fully disclose the performance of their enterprises and thereby reducing the effects of moral hazard arising from information asymmetry. The relationship between the incentive of interest-free financing and the attitude of investors toward information asymmetry in their financial, and contractual relationships with banks was investigated using the Multivariate Logistic

Regression model of analysis. Economic factor shaping decision anchored on profit objective and easy access to credit is tested as a critical variable. Other vital variables investigated are the religious belief of the respondents as well as the level of their knowledge and understanding of bank procedures and processes for accessing credit.
The findings indicate that many banking publics consider the incentive of interest-free financing and easy access to financing credit of Islamic banks as a necessary motivating factor, and thus the potential to induce them to give voluntary greater disclosure about the performance of their businesses and thereby reduce the incidence of information asymmetry.

Similarly, the level of knowledge and awareness of the processes and procedures of obtaining financing facilities from the two types of banking also indicate a positive and significant relationship with the motivation of interest-free financing of Islamic banking, and therefore, motivate the entrepreneurs to reduce the incidence of information asymmetry.

Furthermore, religious belief, though not significantly related to the motivation for an Islamic banking product, nevertheless shows a positive relationship. This study, therefore, concludes that even though religion is an essential factor in deciding whether to bank with Islamic banks, it is nevertheless, not significant. The conclusion from this finding, therefore, establishes that even though Islamic banking is predicated on *Sharia* principles, many non-muslims are motivated by interest-free financing, for economic reasons, to establish a banking relationship with Islamic banks and give voluntary greater disclosure about their businesses. The interest-free financing products of Islamic banking are found to be strong incentives to elicit more meaningful information sharing by entrepreneurs with their fund providers.

To ensure greater financial inclusion for individuals, and small and medium enterprises in Nigeria; therefore, there is the need to deepen the financial market beyond the existing conventional system. Financial incentives that can naturally elicit voluntary information disclosure from borrowing bank customers and thereby reduce asymmetric information and moral hazard must be developed and promoted. It is also essential to design products that fit the need of consumers for financial services at the price they can afford.

Islamic finance in Nigeria, therefore, presents enormous opportunities to bridge the existing funding gap in the real sector of the economy particularly, for small and medium enterprises that constitute a considerable proportion of the productive sector. It eliminates the high cost of funds in the form of high-interest rates and the hurdles of collateral usually faced by many small and medium-sized enterprises (SMEs). Most importantly, it enshrines the principle of risk-sharing against the risk transfer characteristics of the conventional system.

The policymakers, therefore, need to make conscious and determined efforts at promoting the establishment of many more Islamic banks through policies encouraging the development of Sharia-compliant financial instruments, the promulgation of relevant tax laws and supportive regulations. The macroeconomic objectives of the government of full employment, price stability, and financial inclusion can further be attained through the asset-based feature of Islamic banking and finance. An enabling legal and regulatory environment for the Islamic financial system will open easy access for the Nigerian financial system to the global Islamic financial market.

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