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Awareness and Adoption of Islamic Banking in Tanzania with Special Reference to Technology Acceptance Model (TAM) and Diffusion of Innovations (DOI)

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Abstract

This paper examines the level of awareness and the factors determining the adoption of Islamic Banking (IB) in Tanzania. The study employed quantitative methods to investigate how the Technology Acceptance Model (TAM) and Diffusion of Innovations (DOI) theories predict the adoption of IB in Tanzania. Structured questionnaires were used to collect data. Descriptive statistics were utilized to determine the level of awareness among respondents with different demographic characteristics. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to examine the factors influencing the adoption of IB in Tanzania. The findings revealed that male respondents, those who are more educated, Muslim, and civil servants are more aware of and have higher adoption rates of IB compared to their female, less-educated, non-Muslim, and businessmen counterparts. Furthermore, using SMART-PLS, the estimated PLS-SEM model shows that factors such as relative advantage, compatibility, social influence, and knowledge significantly contribute to the adoption of IB products and services in Tanzania. Conversely, trust and government support were found to be insignificant in influencing the IB adoption. Therefore, the findings offer valuable insights for stakeholders in the Islamic Banking sector, signifying a need to prioritize awareness and persuasion-focused initiatives. These recommendations aim to enhance efforts toward promoting the inherent benefits of IB and imparting knowledge to potential adopters.

Keywords: *Islamic Banking adoption, DOI, TAM, PLS-SEM*

1. Introduction

There is no doubt that banking is a crucial sector for the economic growth of any nation due to its linkage with other sectors of the economy (King & Levine, 1993; Ferreira, 2008; Ho & Odhiambo, 2013; Ezeh & Nkamnebe, 2020; Sen, Antara, & Sen, 2020). Recently, modern banking practices have emerged due to several factors, including advancements in technology, innovation, competition, globalization, risk, changes in policies, and cultural values. This evolution of the banking sector has created an opportunity for Islamic Banking (IB) to emerge worldwide. Islamic Banking has gained popularity beyond its traditional markets, such as those of the Middle East and Northern Asia, to include several other countries like the United States, East Asia, and many African nations (Kulshrestha & Ali, 2018; Mohd Thas Thaker et al., 2020).

Worldwide statistics indicate that Islamic Banking is growing. In 2015, the Financial Services Board reported a total asset of US$1.88 trillion in Islamic services worldwide, which grew to US$2.7 trillion in 2020 (Ismail, 2022). Considering the recent trend, it is projected that

the Islamic Banking's total assets will reach US$3.7 trillion in 2024 (Tashtamirov & Abdurakhmanova, 2021). Nevertheless, the IB adoption has never been a straightforward matter, either in non-Muslim countries or even in Muslim-majority nations (Hadiza Sa'id, 2020; Sen, Antara, & Sen, 2020). For instance, the share of Islamic Banking assets in total banking assets by country shows that Iran is the leading IB market, accounting for 32.1%, followed by Saudi Arabia at 20.2%, Malaysia at 10.8%, the UAE at 9.8%, and Kuwait at 6.3% as of 2019. Other countries among the top ten Islamic Banking jurisdictions include Qatar (6%), Turkey (3%), Bangladesh (2%), Indonesia (2%), and Pakistan (1%). Meanwhile, other countries globally account for only 7% of total assets (Tashtamirov & Abdurakhmanova, 2021). These statistics highlight the relatively low adoption of Islamic Banking worldwide. Furthermore, there are limited studies on the factors influencing the adoption of Islamic Banking in both pluralistic and secular countries.

While the first Islamic Bank dates back to 1963, when the Mit Ghamr Savings Bank was created in Egypt (El Mallouli & Sassi, 2022), Islamic Banking in Tanzania first emerged in 2008 through KCB Bank, which opened an IB window. Currently, there are six banks offering IB services. These services are offered in two structures: the Islamic Banking windows structure, which includes Azania Bank, CRDB Bank, KCB Bank, NBC, PBZ Ikhlas, and Stanbic Bank; and fully-fledged Islamic Banking, such as Amana Bank, which started in 2011. By 2021, Islamic Banks in Tanzania had total assets worth approximately TZS 484 billion, representing less than 1.3% of the total assets in Tanzania's banking sector.

Muslims make up a significant proportion of Tanzania's population, approximately 34% of the 64 million people, which provides a potential base for the growth of Islamic products. However, since the inception of Islamic Banking in 2008, its growth has remained sluggish. Kulshrestha & Ali (2018) reported that only 2.3% of the banked population had adopted the Islamic Banking industry in Tanzania as of 2016. In 2021, the banked population, aged 15 and above, was approximately 32 million. However, this slow adoption trend is not unique to Tanzania; it is also observed in early adopters and top Islamic Banking jurisdictions like Bangladesh, Indonesia, Malaysia, Pakistan, Qatar, and Turkey (Jamshidi et al., 2015; Tashtamirov & Abdurakhmanova, 2021). This underscores the need for a study to examine the factors influencing the adoption of Islamic Banking. Therefore, this study intends to explore these determinants in the Tanzanian context.

The absence of a national legal framework is one of the most significant barriers jeopardizing the growth of IB in Tanzania (Sulayman, 2015). The IB sector is still governed by the same regulations as conventional banking, which makes it difficult to introduce IB products not covered by existing regulations. For example, the conventional banking requirement for all banks to deposit funds into the insurance depository board, as stipulated in Section 36 of BAFIA 1991, subjects these deposits to interest rates and impedes Islamic banks' ability to fully comply with Shariah principles. Additionally, Mzee (2016) highlights that the regulatory authority's challenge in instituting IB laws stems from the articulation of the constitution. The URT constitution bars state organs from interfering with religious matters, even though it recognizes the presence of various faiths in the country. This implies that the Bank of Tanzania (BoT) is constitutionally barred from regulating, supervising, or monitoring any religious matters, including IB activities (Mzee, 2016). Yet, since 2016, BoT has been a member of the Islamic Financial Services Board (IFSB), indicating the possibility of developing a separate legal framework for IB.

Moreover, Islamic Banking lacks global standards, a unified regulatory framework, or even a global supervisory framework. While some efforts have been made, such as establishing international organizations like ISFB and AAOIFI, these organizations lack the mandate to enforce compliance among banks (Kulshrestha & Ali, 2018). Instead, they provide recommendations aimed at facilitating Islamic Banking operations worldwide. Omar & Yusoff (2019) proposed three recommendations for Tanzania: setting up a legal framework for IB that requires the establishment of a Shariah committee, a Shariah compliance audit framework, and an appropriate regulatory system.

Furthermore, the absence of an Islamic interbank money market might also hinder the development of IB in Tanzania. Insufficient knowledge and the lack of Shariah-compliant money market instruments are among the challenges facing IB expansion (Kulshrestha & Ali, 2018). In contrast, the establishment of the Islamic interbank money market in Malaysia in 1994 significantly contributed to the growth of its IB industry (Mohd Thas Thaker et al., 2020). However, the emerging Islamic finance ecosystem, such as the recent introduction of Islamic bonds (sukuk) and Islamic insurance (takaful), offers promising prospects for the growth of IB in Tanzania.

Moreover, the problem of IB literacy and human capital constraints has also been highlighted as a major obstacle to the growth of IB (Sulayman, 2015). Other significant issues identified by Sulayman include the stereotyping and estranging of Islamic terms, which cause non-Muslims to distance themselves from Islamic Banking, believing that participation equates to supporting Islam as a religion. Hence, despite the challenges outlined regarding the expansion of IB, this study aims to investigate the key factors influencing the adoption of IB using the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) theories.

The subsequent sections of this paper are organized as follows: Section two offers a review of the literature, focusing on both theoretical and empirical studies relevant to this research, along with the formulation of research hypotheses. Section three presents the research methodology. Section four discusses and analyzes the findings, while Section five concludes the paper by summarizing the key findings and implications.

2. Review of Literature

2.1. Islamic Banking Overview

Islamic Banking (IB) has been operational for over six decades in various countries adhering to Islamic Shariah principles (Ezeh & Nkamnebe, 2020). Nevertheless, in most pluralistic and secular nations, the operation of IB began within the last two decades. Islamic banks' products cater to both Muslim and non-Muslim customers (Amin et al., 2013). Thus, customers from conventional banking may shift to Islamic Banking services; however, religion is observed as a cornerstone for the demand for interest-free products (Tara et al., 2014). The recent global proliferation of Islamic Banking has been propelled by various factors, such as financial crises, liberalization, and government policies. The 2008 financial crisis significantly impacted conventional banking thus creating opportunities for alternative banking models, including Islamic Banks to flourish within the financial system (Ezeh & Nkamnebe, 2020). Additionally, the financial inclusion agenda has facilitated the acceptance of specialized banks by including Islamic Banks into mainstream banking operations (Kulshrestha & Ali, 2018; Sa'id, 2020). Furthermore, liberalization policies are acknowledged as contributing factors that have fostered the growth of IB (Benamraoui, 2008).

Islamic Banking, unlike conventional banking, uses an investment approach that advocates for a profit-and-loss-sharing model. In Islamic Banking, the depositor shares profits and losses depending on the bank's performance rather than receiving a predefined, promised return such as an interest rate or riba. Conversely, depositors in conventional banking transfer their risks to the bank in exchange for a fixed and guaranteed interest rate (Haider et al., 2018). IB may be perceived as an innovation as it offers new products, services, and practices compared to its conventional counterparts (El Mallouli & Sassi, 2022). IB, apart from the prohibition of interest rates (forbidding riba), has several practices that differ from conventional banking: these include avoiding Gharar and Mayassir and introducing profit-sharing instruments. The newly developed Islamic Banking products include Mudarabah, Musharaka, Istisna, and Ijara (El Mallouli & Sassi, 2022). Table 1 offers a summary of some of the key Islamic Banking products with their brief descriptions. Islamic Banking practices may be considered innovations in the modern world. Innovation refers to an idea, project, or practice that is perceived as new by an individual or society (Rogers, 2003; Robertson & Kennedy, 1968). IB is an evolving system, akin to other services, involving processes such as development, adoption, and diffusion (El Mallouli & Sassi, 2022).

However, several factors, such as a narrow branch network, the perception that Islamic Banking does not completely follow Islamic principles, and inconvenient branch locations, have been cited as barriers to the success of IB (Butt et al., 2011). Moreover, a lack of transparency among business owners has been identified as one of the obstacles to IB's success in Nigeria. Another observed challenge for IB adoption is the need to educate and retrain bank staff, equipping them with the knowledge and skills to handle IB operations effectively (Ezeh & Nkamnebe, 2020).

It is vital for banks to determine how customers choose one bank over another (Huber et al., 2012). A study conducted in Malaysia with non-Muslim clients found that convenience, product pricing, responsiveness, reliability, operational risk, and security are the main drivers of loyalty in Islamic Banking. However, accessibility was found to be an insignificant determinant of customer loyalty toward Islamic Banking (Mohd Thas Thaker et al., 2020). A large number of studies have considered factors such as accessibility, competence, convenience, responsiveness, product pricing, reliability, risk, security, and value-added factors in examining the determinants of Islamic Banking adoption.

Table 1: Key Islamic Banking Products

Islamic Banking Products	Brief Description
Mudarabah	The partnership agreement between the bank and the customer is where bank provides capital to the enterprise operated by the customer and the enterprise provides labor and expertise. It is different from conventional loan as there can be no interests, but an agreed-upon split of profits, that is a pre-agreed ratio that can be determined at the outset of the contract, which will be the split after taxes and expenses.
Murabahah	It is an Islamic financing structure that works as a sale agreement. The bank sells specific assets in its possession to the customer. The sale price includes the value of the asset and a profit agreed upon according to Murabahah agreement.
Musharakah	It is a joint venture partnership where two or more parties combine either their capital or labor to form and run a business in which the profit and loss from those business ventures are distributed according to the terms defined in the Musharakah

	agreement.
Istina	This is an Islamic financing structure where a bank and customer enter into a long-term sales agreement. For example, a bank may agree to pay a contractor or developer of a certain mega project and deliver the completed project or asset to a customer at a predetermined future time at an agreed price.
Ijara	This is an Islamic Banking finance that serves as a lease finance where a bank agrees to transfer the right to use an item under its ownership to the customer for a specified period in exchange for an agreed consideration.
Sukuk	It is a Shariah-compliant bond or certificate that represents a proportional right of ownership of assets or pool of assets, which is contrary to conventional bonds which are regarded as debt instrument with a predetermined payment of interest.
Takaful	It is an agreement in which members contribute money to a common fund. The fund is used to compensate the member against loss or damage, as defined in the Takaful agreement.
Wadiah	This refers to the amount deposited by a bank customer with a promise of his funds in full.

Source: El Mallouli & Sassi, (2022) and Haider et al. (2018)

2.2. Theories

This study has adopted both the Technology Acceptance Model (TAM) and the Diffusion of Innovation Theory (DOI) because they have been extensively used to examine factors influencing the adoption of Islamic Banking in different countries (Ali & Puah, 2016; Jamshidi et al., 2015; Kaabachi & Obeid, 2016; Mahdzan et al., 2017; Yahaya et al., 2016; Ezeh & Nkamnebe, 2020). The importance of TAM in this kind of study is supported by Shaikh & Karjaluoto's study (2015), which found that out of 55 studies on mobile banking adoption conducted between 2005 and 2015, 42% of researchers adopted TAM as their research model. The literature indicates that TAM has been adopted by researchers across different contexts, sectors, and cultures (Naeem et al., 2022). Besides, the DOI Theory is also widely used in research to study the adoption and diffusion of innovation.

The TAM is an extension of Ajzen and Fishbein's Theory of Reasoned Action (TRA). TAM was proposed by Fred Davis in 1985 to explore behavioral and intentional factors influencing technological adoption (Naeem, Jawaid & Mustafa, 2022). A study by Haider et al. (2018) employed TAM to model factors such as perceived financial cost, perceived usefulness, social norms, perceived self-expression, and perceived credibility as independent variables affecting the dependent variable; behavioral intention to use mobile banking.

On the other hand, the Diffusion of Innovation (DOI) Theory is widely used in research to study the adoption and diffusion of innovation and was propounded by Rogers in 1962 (Chencheh, 2011). Initially, DOI focused on agricultural technology and social innovations, but it has since been used as the starting point for many researchers to study adoption and diffusion in all forms of innovation (Dauphine-Pierre, 2011). DOI outlines the processes of adoption and diffusion of innovation, which range from knowledge, persuasion, decision, and implementation to confirmation (El Mallouli & Sassi, 2022). Moreover, DOI classifies adopters into categories such as innovators, early adopters, early majority, late majority, and laggards (Bananuka et al., 2020). These classifications not only imply differences in adoption speed but also necessitate studies in different geographical contexts and at different stages of the product life cycle. DOI asserts that the innovation attributes (such as perceived relative advantage, compatibility,

complexity, trialability, and observability) highlight the rate and extent of the relationship between innovation and adoption (El Mallouli & Sassi, 2022).

Therefore, our study has considered six independent variables extracted from TAM and DOI, which are: relative advantage, compatibility, knowledge, social influence, trust and government support. These variables are examined for their influence on Islamic Banking adoption in Tanzania.

The relative advantage refers to the degree to which a new product or service is better than its close substitute (Rogers, 2003). The relative advantage is expressed in terms of economic profitability (e.g., discounts), social or other benefits, or perceived financial cost (Al-Gahtani, 2001; Haider et al., 2018). Studies indicate that relative advantage is positively related to the adoption rate, as confirmed by researches conducted in various contexts (Al-Gahtani, 2001; Kolodinsky et al., 2004; Thambiah et al., 2011; Anuar et al., 2012). For example, a study conducted in Malaysia by Anuar et al. (2012) revealed that relative advantage is the most influential factor for Islamic Banking customers adopting internet banking. This implies that before deciding, customers assess the potential benefits of innovation; the greater the benefit, the higher the adoption rate (El Mallouli & Sassi, 2022).

A study conducted in the UK revealed that factors such as bank reputation, parking facilities, low service charges, recommendations from friends, staff friendliness, the uniqueness of products/services, and fast as well as efficient services contributed to Islamic Banking adoption (Mansour et al., 2010). Relative advantages may relate to the pricing strategy, quality of services, and social responsibility practices implemented by the bank (Obeid & Kaabachi, 2016). Therefore, we hypothesize that:

***Hypothesis 1**: Relative advantage positively impacts the adoption of Islamic Banking products and services in Tanzania.*

Compatibility, as stipulated in DOI, refers to the degree to which an innovation is perceived to be consistent with the existing values, past experiences, and needs of potential adopters (Rogers, 2003). In the context of Islamic Banking, compatibility represents the extent to which new products align with the needs, values, beliefs, experiences, and habits of consumers (Hosseini et al., 2015). A number of previous empirical studies have confirmed the positive and significant impact of compatibility on the adoption of Islamic Banking (Tan & Teo, 2000; Kolodinsky et al., 2004; Al Ghaith et al., 2010; Ho and Wu, 2011; Vagnani and Volpe, 2017; Baki et al., 2018). For instance, a study by Su'un Possumah et al. (2018) in Ghana revealed that compatibility with Sharia principles has a significant influence on the adoption of Islamic Banking, regardless of religious groups. Among the attributes of innovation, the religious aspect plays a prominent role as a driver for the adoption of Islamic products and services. Therefore, we hypothesize that:

***Hypothesis 2**: Compatibility positively impacts the adoption of Islamic Banking products and services in Tanzania.*

Moreover, knowledge is another factor highlighted in the DOI model (see Rogers, 2003), which states that the decision to adopt an innovation begins with knowledge of its existence and an understanding of how it works (El Mallouli & Sassi, 2022). Therefore, knowledge of Islamic Banking can be considered an important factor that influences an individual customer's decision to adopt it. This implies that Islamic banks should ensure that correct information and knowledge reach customers to stimulate adoption (El Mallouli & Sassi, 2022).

Available previous studies have explored the influence of knowledge of Islamic Banking on its adoption in several countries (Gerrard & Cunningham, 1997; Metawa & Almossawi, 1998; Asif & Anjum, 2012; Thambiah et al., 2011; Mariadas & Murthy, 2017). Most of these studies have shown a positive and significant impact of knowledge on the adoption of Islamic Banking. For instance, a study by Mariadas & Murthy (2017) in Malaysia revealed a significant and positive impact of consumer knowledge on the adoption of Islamic Banking. Furthermore, poor marketing strategies and a lack of understanding of customers' needs and wants are discussed as factors limiting the development of Islamic Banking (Kaabachi & Obeid, 2016). We, therefore, hypothesize that:

Hypothesis 3*: Knowledge positively impacts the adoption of Islamic Banking products and services in Tanzania.*

Moreover, social system plays a crucial role in the adoption of Islamic Banking. Rogers (2003) proposes four main elements that influence the spread of a new idea: the innovation itself, communication channels, time, and social system. He explains that an individual undergoes five phases of the mental process prior to the adoption and acceptance of products and services. This mental process begins with awareness, develops into knowledge, then requires persuasion, followed by the decision and confirmation of adoption. Hence, the theory emphasizes the importance of examining the social system's influence in both persuasion efforts and awareness programs conducted in the country to influence adoption decisions. Therefore, we hypothesize that:

Hypothesis 4*: Social influence positively impacts the adoption of Islamic Banking products and services in Tanzania.*

Government support has also been cited as one of the factors that may either foster or hinder the growth of Islamic Banking. For example, studies by Laldin (2008) and Al Nasser & Muhammed (2013) highlight how the governments of Malaysia and Iran supported the development of Islamic Banking and finance in their respective countries. However, a study in Egypt by Mouawad (2009) indicates that the Egyptian government used its power to hinder the development of Islamic financing.

Furthermore, Haniffa & Hudaib (2007) emphasize how efforts to establish Islamic finance can be affected by a secular agenda due to socio-economic and political factors, as well as interaction with conventional finance. Moreover, Tabash (2017) studied the challenges of Islamic Banking growth in India and found that, for Islamic Banking to succeed, the regulatory environment is more important than other identified factors, such as lack of awareness, lack of standardization, lack of experts, and lack of cooperation and coordination. Therefore, we hypothesize that:

Hypothesis 5*: Government support positively impacts the adoption of Islamic Banking products and services in Tanzania.*

Trust is also a critical factor that is widely used to determine the adoption of new technology or innovation. A study by Haider et al. (2018) used perceived credibility to denote trust, building on the work of Goh & Sun (2014), who stated that perceived credibility refers to the confidence an individual has in the system while conducting financial transactions. Confidence in the system's security and privacy may contribute significantly to trust in the adoption of new products.

Several studies have found trust to have a significant influence on the adoption of new products (Wang et al., 2003; Luarn & Lin, 2005; Yuen et al., 2010; Amin et al., 2013). Moreover, Arshad et al. (2016) highlighted a relationship between trust and a bank's image, stating that satisfaction enhances the bank's image, which then influences trust and, in turn, impacts the intention to adopt Islamic Banking. Therefore, we hypothesize that:

Hypothesis 6*: Trust positively impacts the adoption of Islamic Banking products and services in Tanzania.*

It is well understood that the drivers for Islamic Banking adoption have been extensively examined by many scholars, using various established theories, including the TAM, the DOI Theory, Unified Theory of Acceptance and Use of Technology (UTAUT), Planned Behavior (PB), and others. However, within the context of the Islamic Banking sector in Tanzania, the adoption of Islamic Banking services has not been explored through these theories. To address this gap, our study has adopted the DOI and TAM frameworks to examine the factors determining the adoption of Islamic Banking in Tanzania. In this study, the determinants of TAM and DOI were combined to examine the factors influencing customers' intention to adopt Islamic Banking in Tanzania.

3. Research Methodology

3.1. Data Collection

The data were collected using self-administered structured questionnaires via an online platform. The questionnaire link was randomly shared with individuals aged 18 years and above who had the ability to read and understand English. The link was distributed randomly to respondents, without consideration of whether they were users or non-users of Islamic Banking products and services, or whether they identified as Muslim or non-Muslim individuals. The link was shared with three hundred individuals between February 2023 and September 2023. However, only 194 individuals responded to the questionnaire, representing 64.7% of the targeted respondents. The questionnaire used a five-point Likert interval scale that ranged from “strongly disagree” (1) to “strongly agree” (5), with measurements adapted from previous studies, such as Thaker et al. (2019). The questionnaire underwent a pre-test to ensure validity and reliability.

The questionnaire was divided into two sections: the first section consisted of generic questions about the participants’ characteristics, while the second section focused on parameter indicators of the following six independent variables: relative advantage, compatibility, knowledge, social influence, trust and government support. These variables were extracted from TAM and DOI. The number of indicators for each variable was six, five, six, five, eight, and four, respectively. In total, 35 questions were designed to capture factors influencing individuals’ intention to adopt Islamic Banking services in Tanzania.

3.2. Descriptive Statistics

Table 2 provides descriptive statistics for the sample respondents. It reveals that most of the respondents were male, accounting for 65.5%, whereas females constituted only 34.5%. However, the adoption rate among those who were aware of IslamicBbanking (IB) was higher for women compared to men, at 44.8% for women and 28.3% for men. Interestingly, several studies have reported varying results regarding gender's influence on adoption, depending on the factors examined. For example, males were found to exhibit greater confidence and comfort

toward new technology adoption, relative to women, who were often more nervous about adopting new technologies (Lu et al., 2006). However, a study by Venkatesh & Morris (2000) found that factors such as "perceived ease of use" were significant for women, while "perceived usefulness" was a significant factor for men in their decision to adopt new technologies.

Furthermore, Table 2 highlights respondents' education levels, showing that 92.3% of respondents had attained postgraduate-level education or higher. Of these, 92.3% were aware of IB, but the adoption rate was only 36%. Respondents' occupational status indicates that the majority were in the working class (civil servants and businessmen), making up 65.5%, while the remaining 33% were students and 1.5% were retirees. Awareness across all these groups was above 89%. However, the adoption rate was very low for both businessmen (28.9%) and students (10%).

The survey included both Muslim and non-Muslim respondents, representing 53.6% and 46.4% of the sample, respectively. Among Muslim respondents, 92.3% were aware of the existence of Islamic Banking products. Interestingly, a significant proportion of non-Muslim respondents (87.8%) were also aware of IB products. However, adoption rates were notably different: only 8.9% of non-Muslim respondents adopted IB services, compared to 55.8% of Muslim respondents. This indicates that Islamic Banking products are far less popular among non-Muslim groups compared to Muslim groups. Nevertheless, the findings also reflect that the adoption rate is poor even among Muslim respondents.

Therefore, this study seeks to unveil factors influencing the adoption of Islamic Banking using the TAM and DOI frameworks. To achieve this, the study applied Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the predictors of Islamic Banking adoption in Tanzania. The model allows for the simultaneous testing of multiple relationships, as it evaluates both measurement parameters and structural path coefficients (Hair et al. (2019). PLS-SEM results are more valid and reliable compared to covariance-based analysis techniques (Thaker et al., 2019). Moreover, PLS-SEM is less affected by multicollinearity, small sample size, and multivariate normality problems (Qureshi & Compeau, 2009).

Table 2: Descriptive Statistics of the Sample

Demography Results	Frequency	Percentage (%)	Aware of Islamic Banking	Percentage (%)	Own Islamic Bank Acct	Percentage (%)
Gender						
Male	127	65.5	115	90.5	36	28.3
Female	67	34.5	60	89.5	30	44.8
Age						
18-34 years	127	65.5	109	85.8	25	19.7
35-64 years	65	33.5	62	95.4	40	61.5
65 and above	02	01.0	02	100	02	100
Religion						
Muslim	104	53.6	96	92.3	58	55.8
Non-Muslim	90	46.4	79	87.8	8	08.9
Education						
Certificate	04	02.1	3	75	1	25
Diploma	12	06.2	11	91.7	3	25

Bachelor	09	04.6	5	55.6	00	00
Graduate plus	169	87.1	156	92.3	62	36.7
Occupation						
Student	64	33.0	57	89.1	07	10.9
Civil Servant	89	45.9	82	92.1	47	52.8
Business	38	19.6	34	89.5	11	28.9
Retired	03	01.5	3	100	1	33.3

3.3. Measurement Model

The study simultaneously estimated both measurement and structural models using the multivariate regression method. This section presents the tests for convergent and discriminant construct validity. The test results are provided in Table 3, which includes factor loadings, Cronbach's alpha (CA), Average Variance Extracted (AVE), and Composite Reliability (CR). According to Hair et al. (2019), the minimum required values for factor loading, AVE, and CR are 0.5, 0.5, and 0.7, respectively. Table 3 reveals that the factor loadings for all items exceeded the threshold of 0.5, which is the recommended value in most studies thus validating the constructs.

Moreover, the AVE statistics, which measure the amount of variance captured by a construct, indicate that the model has passed the test for all constructs, as the scores range from 0.662 to 0.794, which are well above the recommended value of 0.5. The model also passed the CR test for all constructs, with scores ranging from 0.922 to 0.954 thus meeting the recommended value of 0.7.

Table 3: Cross Loading and Convergent Test Scores

Variables	Items	Factor Loading	Cronbach's Alpha	AVE	CR	VIF
Relative Advantage	RTA1	0.792	0.924	0.726	0.941	2.301
	RTA2	0.820				
	RTA3	0.881				
	RTA4	0.819				
	RTA5	0.900				
	RTA6	0.896				
Compatibility	COM1	0.825	0.931	0.785	0.948	2.46
	COM2	0.899				
	COM3	0.932				
	COM4	0.884				
	COM5	0.887				
Intention to Adoption	INT1	0.846	0.913	0.794	0.939	
	INT2	0.903				
	INT3	0.928				
	INT4	0.885				
Knowledge	KNOW1	0.784	0.898	0.662	0.921	2.329
	KNOW2	0.874				
	KNOW3	0.861				
	KNOW4	0.865				
	KNOW5	0.721				

Variables	Items	Factor Loading	Cronbach's Alpha	AVE	CR	VIF
	KNOW6	0.765				
Social Influence	SOCF1	0.888	0.897	0.705	0.922	2.114
	SOCF2	0.923				
	SOCF3	0.927				
	SOCF4	0.663				
	SOCF5	0.767				
Trust	TRU1	0.726	0.945	0.723	0.954	3.281
	TRU2	0.880				
	TRU3	0.880				
	TRU4	0.872				
	TRU5	0.894				
	TRU6	0.818				
	TRU7	0.850				
	TRU8	0.869				
Government Support	GVT1	0.868	0.909	0.783	0.935	1.604
	GVT2	0.895				
	GVT3	0.899				
	GVT4	0.876				

Moreover, the study also assessed discriminant validity to determine whether the constructs were sufficiently distinct from each other. This step ensures that the measures of different constructs are not highly correlated. The Heterotrait-Monotrait (HTMT) ratio was adopted in this study to compare the correlations between items measuring different constructs. Table 4 presents the HTMT values, all of which are below the threshold value of 0.85 for each pair of constructs thus supporting discriminant validity.

Table 4: Discriminant Validity Test

	Compatibility	Government Support	Intention	Knowledge	Relative Advantage	Social Influence	Trust
Compatibility							
Govt Support	0.364						
Intention	0.689	0.362					
Knowledge	0.647	0.432	0.646				
Relative Advantage	0.626	0.456	0.623	0.607			
Social Influence	0.629	0.536	0.604	0.538	0.506		
Trust	0.671	0.537	0.656	0.615	0.618	0.623	

3.4. Structural Model

The structural model provides the relationship between the constructs (Ezeh & Nkamnebe, 2020; Hair et al., 2014). The structural model results are presented in Table 5 and Figure 1. The study performed bootstrapping procedures using Smart PLS 3 to test the hypotheses. The findings indicate that the model fits the data well, with a coefficient of determination (R^2) of 72.5%.

According to Hair et al. (2014), R^2 values of 0.75, 0.50, or 0.25 are described as substantial, moderate, or weak, respectively. This value refers to the degree to which the variance of the outcome variable is explained by the predictor variables. Moreover, the Q^2 value (the PLS predict), which assesses the predictive relevance of the model, is 0.691 (see Table 5). The positive Q^2 value indicates that the model has predictive relevance. Since the value is above 0.5, it is considered relatively high. The higher the positive value, the better the model's predictive performance.

Table 5: Results on Predictors and Intention for Islamic Banking Adoption

Direct relationship	**Original Sample (O)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**	Effects size *(f^2)*
Compatibility -> Intention	0.454	0.076	5.972***	0.000	0.304
Govt Support -> Intention	-0.070	0.046	1.514*	0.065	0.011
Knowledge -> Intention	0.120	0.069	1.732**	0.042	0.023
Relative Advantage -> Intention	0.356	0.082	4.360***	0.000	0.200
Social Influence -> Intention	0.132	0.059	2.244***	0.012	0.030
Trust -> Intention	-0.035	0.078	0.451	0.326	0.001
Coefficient of Determination (R^2)					
	R Square			**R Square Adjusted**	
Intention to Adopt	0.725			0.716	
Q2 statistic (PLS PREDICT)					
	RMSE	**MAE**		**Q^2_predict**	
Intention to Adopt	0.521	0.383		0.691	
*, **, and *** represent significance levels of 0.10 [or 10 percent], 0.05 [or 5 percent], and 0.01 [or 1 percent], respectively.					

The study used PLS bootstrapping with 500 resampling iterations to estimate t-statistics and standard errors, examining factors influencing the adoption of Islamic Banking. The results, presented in Table 5, indicate that relative advantage, compatibility, social influence, and knowledge have a significant positive influence on individuals' decisions to adopt Islamic Banking at a 95% confidence interval. The path between compatibility and the adoption of Islamic Banking shows the highest coefficient ($\beta = 0.454$) with the highest t-value (5.972) and a p-value of 0.000. Relative advantage is the second most influential factor, with a coefficient ($\beta = 0.356$), a t-value of 4.360, and a p-value of 0.000. Social influence ranks third, with a path coefficient ($\beta = 0.132$), a t-value of 2.244, and a p-value of 0.012. Lastly, knowledge ranks fourth, having a significant influence on the adoption of Islamic Banking, with a coefficient ($\beta = 0.120$), a t-value of 1.732, and a p-value of 0.042.

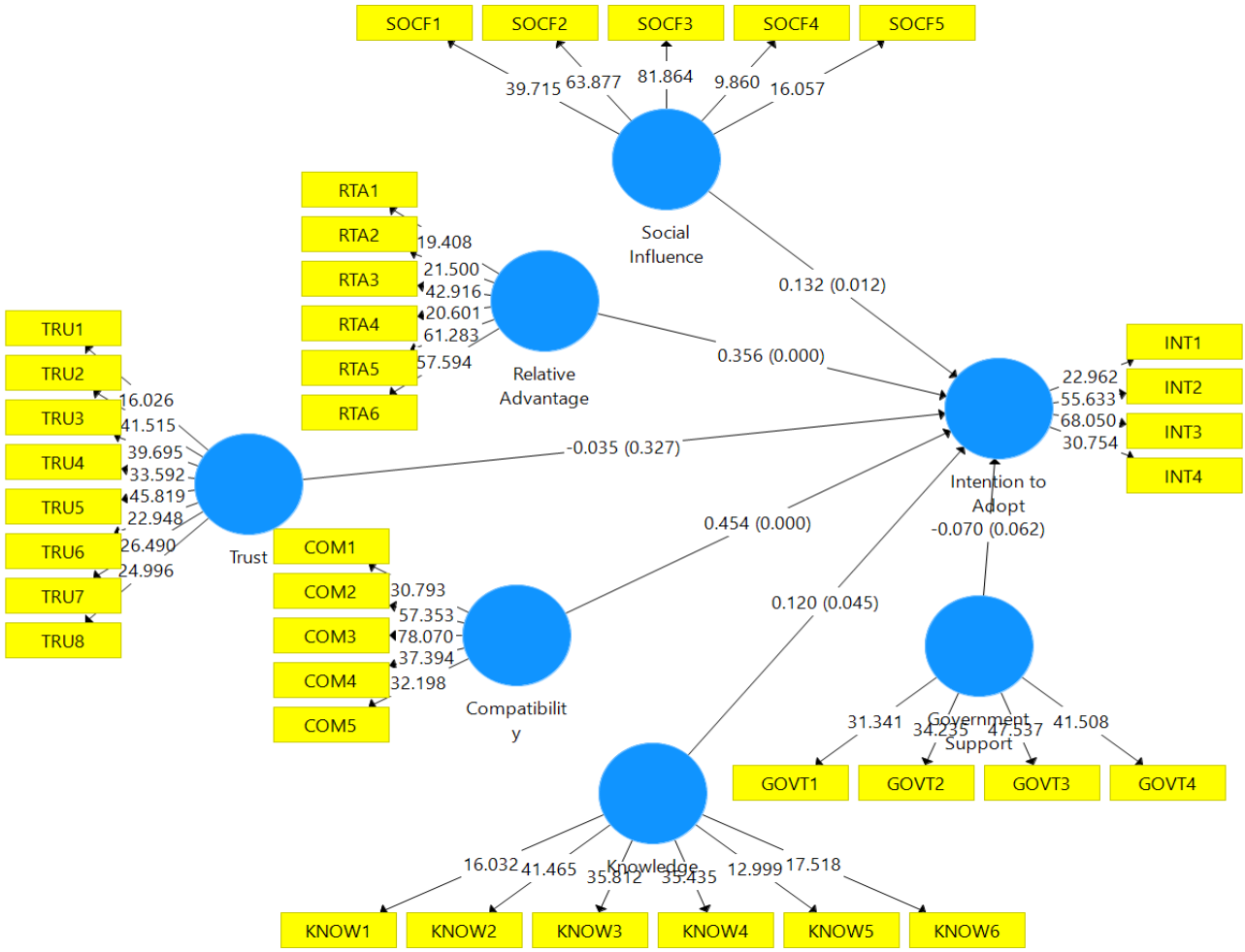

Figure1: The Structural Model

4. Discussion of the Findings

The discussion begins by examining the respondents' awareness of Islamic Banking, considering various demographic characteristics. The second part focuses on the results of the Structural Equation Modeling (SEM) estimation, specifically how relative advantage, compatibility, knowledge, social influence, trust, and government support contribute to the adoption of Islamic Banking in Tanzania.

The study revealed that respondents with a relatively higher level of education, Muslim respondents, male respondents, and civil servants displayed greater awareness of Islamic Banking, along with a comparatively higher adoption rate compared to their counterparts who were less educated, non-Muslim, female, and businessmen. Moreover, the findings indicate an unsatisfactory adoption rate even among those who are aware of Islamic Banking products and services. However, the Diffusion of Innovation (DOI) Theory posits that individuals undergo five phases of the mental process prior to the adoption and acceptance of products and services. This process begins with awareness, develops into knowledge, requires persuasion, and is followed by the decision and confirmation of adoption.

In line with DOI, our findings align with the insights from Islam & Rahman (2017) and Kaabachi & Obeid (2016), which emphasize that awareness alone is not sufficient to drive

adoption. Instead, understanding and knowledge emerge as vital factors influencing the adoption of Islamic Banking. Descriptive findings are further supported by the PLS-SEM estimation, which found that knowledge has a significant positive influence on the adoption of Islamic Banking.

The study found that relative advantage significantly and positively influences the adoption of Islamic Banking in Tanzania. This result is consistent with findings from other studies, including Al-Gahtani (2001); Kolodinsky et al. (2004); Choudhury & Karahanna (2008); Thambiah et al. (2011); Anuar et al. (2012). This suggests that the potential benefits associated with Islamic Banking products and services motivate customers to adopt Islamic Banks. Moreover, it is important to note that the influence of relative advantage on Islamic Banking adoption may be moderated by customers' attitudes (Amin et al., 2013).

A study in the UK found that factors such as bank reputation, parking facilities, low service charges, recommendations from friends, staff friendliness, product and service uniqueness, and fast as well as efficient services contributed to the adoption of Islamic Banking (Mansour et al., 2010). While the adoption of Islamic Banking may be influenced by religious considerations, individuals who are not Muslim may be motivated by profitability (Lujja et al., 2018). Other factors that were found to have a significant impact on Islamic Banking adoption in Tanzania include compatibility and social influence. This result aligns with several other studies that found a positive and significant impact of compatibility on the adoption of Islamic Banking (Tan & Teo, 2000; Kolodinsky et al., 2004; Al Ghaith et al., 2010; Ho & Wu, 2011; Vagnani & Volpe, 2017; Baki et al., 2018). This suggests that Islamic Banking products and services are compatible with the norms and values of the social structure, which facilitates their acceptance and adoption (Anuar et al., 2012). However, compatibility, awareness, and knowledge alone may not be sufficient to encourage adoption. The persuasive impact of various media channels, including social influence, plays a significant role in enhancing the adoption of Islamic Banking. These findings offer valuable insights for practitioners in the Islamic Banking industry, emphasizing the need to enhance and strengthen advertising programs.

Interestingly, trust was found to have no significant influence on individuals' decisions to adopt Islamic Banking in Tanzania. This finding contrasts with previous studies, including Wang et al. (2003); Luarn & Lin (2005); Amin et al. (2008); Yuen et al. (2010); and Haider et al. (2018) which found that trust significantly influences Islamic Banking adoption. The insignificant impact of trust in this study may suggest that the lower level of awareness of Islamic Banking products and services among respondents diminishes their trust thus reducing its influence on adoption. Thus, intensified advertising programs may be necessary to ensure effective communication about Islamic Banking products and services by enabling potential adopters to gain sufficient knowledge and make trust-based decisions.

Furthermore, the study found that government support does not have a significant influence on individual decisions to adopt Islamic Banking. This finding is consistent with Amin et al. (2012), who also found that government support has an insignificant influence on the adoption of Islamic Banking. However, our results contradict several previous studies, including Khan & Mirakhor (1990); Laldin (2008); Mouawad (2009); and Al Nasser & Muhammed (2013), which found that government support significantly influences the growth of Islamic Banking in their respective countries. The findings of this study, combined with existing practices, suggest that government policies or measures may be ineffective or inadequate in meeting the needs of potential adopters thus diluting their impact on the adoption of Islamic Banking in Tanzania.

5. Conclusion and Recommendation

In general, the findings indicate that male respondents, highly educated individuals, Muslims, and civil servants demonstrated greater awareness of Islamic Banking, coupled with a higher adoption rate compared to their female counterparts, less educated individuals, non-Muslims, and businessmen. Moreover, the findings reveal that factors such as relative advantage, compatibility, social influence, and knowledge play a significant role in contributing to the adoption of Islamic Banking products and services in Tanzania. In contrast, trust and government support were found to be insignificant in influencing the adoption of Islamic Banking in Tanzania. Therefore, the findings offer valuable insights to stakeholders in the Islamic Banking sector, emphasizing the need to prioritize awareness campaigns and persuasive initiatives. This recommendation aims to enhance efforts toward promoting the inherent benefits of Islamic Banking, building trust, and imparting knowledge to potential adopters. However, future research could investigate the moderating role of socio-economic attributes and Islamic Banking infrastructure in influencing the factors that contribute to the adoption of Islamic banking in Tanzania.

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