

The Relationship Between Attribute of Innovation and The Selection of Islamic Bank Services: The Moderating Role of Customer Involvement

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Abstract

This study explores the factors influencing the adoption of Islamic Banking Services in Jordan, considering Awareness, Perceived Risk, Compatibility, Bank reputation, and Complexity, while also examining the moderating effect of Customer involvement. Drawing from behavioral studies and adoption psychology literature, the research builds a conceptual framework based on the attributes of innovation theory. A quantitative approach was employed through a fieldwork survey with 419 Jordanian banking sector customers. SPSS and Smart PLS were used for data analysis. The findings reveal that Compatibility, Bank reputation, Complexity, and Customer involvement significantly impact Islamic Banking Services adoption, whereas Awareness and Perceived Risk show insignificant effects. Customer involvement partially moderates the relationships between Perceived Risk and Bank reputation with Islamic Banking Services adoption. However, it does not moderate the relationships involving Awareness, Compatibility, and Complexity. These results offer valuable insights for practitioners aiming to improve Islamic banking adoption in Jordan and contribute to the existing literature.

Keywords: Awareness, Perceived Risk, Compatibility, Bank reputation, Complexity, Customer involvement, Islamic Banking, Adoption, Jordan.

1. Introduction

The banking system in Jordan was dominated by the Central Bank and Amman Financial Market. The central Bank established in 1964, was responsible for note issue, exchange reserves management, and regulation of credit. The bank acted as the fiscal agent for the government, regulated the commercial banking sector, and sponsored the creation of new financial institutions (Mahadin & Akroush, 2019).

Government savings promotion and strict central bank consumer credit controls led to a 7% annual growth rate between 1980 and 1987. Without any significant inflation, the liquid money supply reached JD900 million. The government worried about banking's rapid development in the mid-1980s (Assaf & Tuama, 2018).

As a result, the Central bank of Jordan imposed a moratorium on the establishment of new commercial banks. In 1985 more than 27% of commercial bank credit

financed trade, and less than 10% financed corporate investment (Anouze et al., 2019).

There are four Islamic Banks in Jordan. These banking are Jordan Islamic Bank for Finance and Investment, International Arab Islamic Bank, Dubai Jordan Islamic Bank, and Al Rajhi Bank - Jordan. Also, there are about fourteen conventional banks. Islamic Banking is working in accordance with the rules of Islamic law (Assaf & Tuama, 2018).

The rapid growth of JIB proved the feasibility of this issue to become an integral part of the Jordanian financial sector acts as an effective financial funding resource for the economic sectors of Jordan (Al-Oqool et al., 2020).

JIB was able to grow rapidly and enhance its position among Jordanian conventional banks, as it presents banking and investment services to the clients in

conformity with the Islamic Rules of Sharia' (Al-Oqool et al., 2020).

Islamic banks will need to thoroughly consider the desires and preferences of current and potential customers in order to win their trust. In Jordan, the Islamic banking sector has recognized as an essential ingredient of the Jordanian financial system, contributing to the country's economic growth and development (Ramadan, 2013).

Furthermore, determining the variables undermining or strengthening the adoption of Islamic banking services is necessary, through empirical research using various methodologies. This is particularly because scant academic focus has been paid to Islamic banking, regardless of its wide international influence. Islamic financial organizations will more effectively comprehend their consumers if they have knowledge of their actual intentions and purposes, which provides a strong indication of their likely conduct, as acknowledge in marketing studies (Nawafleh et al., 2018).

Therefore, this current research will focus on the variables that effect the users to adopt the Islamic banking services, at the same time, this research will measure the involvement of customers as moderating role in this context.

2. Literature Review

2.1 Definitions of Islamic Banking

The Islamic banking scheme was introduced in the last quarter of the twentieth century, but the idea of IBS has been around for a long time. IBS was created when there was a need for a financial institution that could cater to Muslim customers' needs and demands. Since the conventional banking sector is entirely focused on an interest-based system, which is prohibited by Sharia Law. As a result, Muslim people seek an agency that can provide them with an Islamic agenda for their business relationships (Khattak & Rehman, 2010). Islamic finance is classified as a commercial deal or product that is primarily used to comply with Sharia law's major principles. The Qur'an, Hadith, Sunnah, Ijma, Qiyas, and Ijtihad are the main Sharia sources (Gait & Worthington, 2007). The Islamic banking structure is entirely focused on the Islamic Sharia principle that excludes interest as a factor. Prior to receiving the real amount of profit, IBS customers do not have a clear idea of the return on their investment. The first step in the creation of the Islamic banking structure was undertaken in Egypt in 1963, when The Mit-Ghamr Savings Bank was founded, which was, in fact, the first Islamic fiscal scheme to be tried (Haron & Ahmad, 2000). However, owing to a well-executed promotion and management strategy, this was ineffective. Following that, strong and effective measures were implemented in the 1980s and onwards, and Malaysia was regarded as the first Islamic nation to devote additional attention to the development of IBS (Roshan & Jahufer, 2018).

The Islamic Banking System (IBS) not only admired by Muslims, but it has also been adopted by the traditional banking industry. They've launched their individualistic Islamic operating windows, which ensure Sharia rules and protocols are followed. The Islamic banking system in the banking industry is growing at a pace of about 15 to 20% each year (Khattak & Rehman, 2010).

2.2 Definitions of Adoption

Adoption has been described in a variety of ways by various scholars. According to (Rogers, 2003), "the process by which an individual or other decision-making unit moves from first learning about an innovation to developing an attitude toward it is known as the innovation decision process, to deciding whether to adopt or reject it, to putting the new idea into innovation, and to confirming that decision" (Qayyum & Ali, 2012). The innovation decision process as explained by Rogers (2003) consists of five steps, which are: "Knowledge: At this stage, an individual gets to know about innovation and possesses understanding of how it functions. Persuasion: This stage represents an individual's formation of an attitude which can be either favorable or unfavorable towards an innovation process. Decision: This stage shows an individual's involvement in activity which determines his/her choice towards accepting or rejecting an innovation. Implementation: At this stage, an individual makes use of an innovation, i.e., puts the innovation into use. And Confirmation: At this stage, the results of an innovation-decision already made are evaluated by an individual" (Rogers, 2003).

2.3 Awareness

The first segment in this study is to assess the effect of awareness on the Adoption of the Islamic Bank in Jordan. In this part, the researcher will try to study the case if the user is aware of the Islamic banking services and how these services work, how the level of awareness could motivate the behaviour of adopting the Islamic Banking services by the Jordanian customers. In the literature, many studies have attempted to link user awareness with the behaviour of adoption.

Ali et al. (2018) aimed to assess the understanding of Islamic banking principles and factors influencing Islamic banking adoption in Brunei. The study found that customer understanding of these principles was below average. Multiple regression analysis demonstrated that understanding, relative advantage, compatibility, complexity, observability, uncertainty, and service quality positively impact Islamic banking service adoption (Q. Ali et al., 2018). Moreover, Rammal and Zurbruegg (2019) examined awareness of halal banking among Australian Muslim residents. The results indicated that respondents are open to purchasing Islamic financial products from well-known organizations (Rammal & Zurbruegg, 2019). Therefore, one could hypothesize the following:

H1: There is a significant relationship between Awareness and Islamic Bank Adoption by the Jordanian Bank Customers

2.4 Perceived Risk

The second segment of this study is studying the effect of Perceived Risk on the Islamic Bank Adoption by the Jordanian Bank Customers. In this part, the researcher will address the effect of the risk perceived by the customers of the Islamic banks and how this risk might hinder or motivate the behaviour of these customers. In the literature, many studies have attempted to link the Perceived Risk with the behaviour of adoption.

Sudarsono et al. (2021) studied the factors affecting the adoption of Islamic banking services in Indonesia. They found that awareness and perceived compatibility positively influence customer intention to adopt Islamic banking services, while religiosity and social influence also have a significant positive effect. However, bank reputation and perceived complexity had no effect on customer intention, and perceived risk had a negative impact (Sudarsono et al., 2021). On the other hand, M. Ali et al. (2021) had two objectives: to explore the determinants of perceived benefit and risk in Islamic Fintech and to examine their influence on user trust and adoption intention. The study revealed that perceived benefit and risk were significantly and positively influenced by their respective factors. Perceived benefit had a positive impact on trust, while perceived risk had a negative effect. Trust had a strong positive relationship with the intention to adopt Islamic Fintech (M. Ali et al., 2021). Therefore, one could hypothesize the following:

H2: There is a significant relationship between Perceived Risk and Islamic Bank Adoption by the Jordanian Bank Customers

2.5 Compatibility

The third segment of this study is dedicated to the relationship between Compatibility of the Islamic banking services with the laws and needs, and the adoption of the Islamic banking services. In part, the researcher will try to evaluate that if the Islamic banking services provided in Jordan follow the policies in Jordan and how this could motivate the behaviour of adopting Islamic banking services. In literature, several studies considered this aspect.

Khan et al. (2020) examined factors influencing Islamic Banking (IB) adoption in Pakistan. The study found that religious beliefs and values, along with bank reputation, Islamic banking performance, and compatibility, positively impact usage intention. Perceived risk and complexity have a negative influence, and it revealed limited knowledge among IB customers in Pakistan (M. Y. Khan et al., 2020). Furthermore, Aziz and Afaq (2018) investigated factors influencing Islamic banking adoption intentions. Their results showed that attitude is influenced by awareness, uncertainty, relative advantage, and

compatibility, while subjective norm is determined by normative beliefs, and perceived behavioral control is influenced by self-efficacy and resource facilitation conditions (Aziz & Afaq, 2018). Therefore, one could hypothesize the following:

H3: There is a significant relationship between Compatibility and Islamic Bank Adoption by the Jordanian Bank Customers

2.6 Bank Reputation

Fourth segment of the current study is dedicated to the relationship between the reputation of the banks and the adopting of the Islamic banking services in Jordan. In this part, the researcher is trying check how the reputation of the bank could bring down or up the level of the Islamic banking services adoption. Moving back to literature, several studies have been conducted to address this aspect. Akhtar et al. (2019) examined the impact of various factors on customer perception in Pakistan's Islamic banking system. They found a significant relationship between awareness, religion, and networking with customer perception in Islamic banking. However, there was an insignificant relationship between bank reputation and customer perception (Akhtar et al., 2019). In addition, Selvanathan et al. (2018) aimed to identify the variables influencing customers' decisions to use Islamic bank products or services. Their findings indicated that bank reputation significantly influences consumers' decisions to use Islamic banking (Selvanathan et al., 2018). Therefore, one could hypothesize the following:

H4: There is a significant relationship between Bank reputation and Islamic Bank Adoption by the Jordanian Bank Customers.

2.7 Complexity

The fifth segment of the current study is dedicated to the relationship between the Complexity of the Islamic banking services and the Adoption of these services. In this part, the researcher will try to build a rationale association between the complexity of the procedures followed in the Islamic banking services and how it could lead to a better level of adoption of these procedures. In literature, several studies considered this aspect.

Khan et al. (2020) examined factors influencing Islamic Banking (IB) adoption in Pakistan. Their findings showed that religious beliefs, values, and banking behavior positively influenced usage intention, with bank reputation, Islamic banking performance, and compatibility having significant positive impacts. On the other hand, perceived risk and complexity had a negative influence, and the study highlighted limited knowledge among IB customers in Pakistan (M. Y. Khan et al., 2020). Moreover, Muhammad & Chin-Hong (2017) investigated the factors determining customer adoption of Islamic banking in Pakistan. Their results revealed that all five attributes of the DOI theory (Compatibility, Complexity, Awareness, Observability, Trial-ability, and Relative

advantage) were positively and significantly related to customer adoption of Islamic banking (Muhammad & Chin-Hong, 2017). Therefore, one could hypothesize the following:

H5: There is a significant relationship between Complexity and Islamic Bank Adoption by the Jordanian Bank Customers

2.8 Moderating Effect of Customer Involvement

Customer involvement could play a middling effect that would link the variables selected in this study with the adoption of the Islamic banking in Jordan. If the customers are involved in the process, they will feel motivated to open Islamic banking accounts. If they don't feel involved, a void between the customers and the Islamic banking services will be created. The literature reviewed by the researcher helped build the concept of the mediating role of Customer involvement.

El Mallouli and Sassi (2021) aimed to propose a conceptual framework for understanding the determinants of Islamic banking product and service adoption in Morocco. They integrated customer involvement, relative advantage, compatibility, complexity, observability, perceived risk, and knowledge as independent variables. The study recommends testing these relationships to provide valuable insights for practitioners and stakeholders (El Mallouli & Sassi, 2021). Furthermore, Latip et al. (2017) investigated the impact of various factors on the adoption of Islamic banking in Sarawak, Malaysia, for both Muslim and non-Muslim populations. Their findings revealed that compatibility, relative advantage/observability, and complexity significantly influenced customers' adoption of Islamic banking products and services. Meanwhile, perceived risk, perceived trust, and customer innovativeness had an insignificant relationship with adoption (Latip et al., 2017).

Overall, the mediating hypotheses can be curved out of the literature review as follows:

H6: There is a significant relationship between Customer involvement and Islamic Bank Adoption by the Jordanian Bank Customers

H6a: There is a moderating role of customer involvement in the relationship between Awareness and Islamic Bank Adoption by the Jordanian Bank Customers

H6b: There is a moderating role of customer involvement in the relationship between Perceived Risk and Islamic Bank Adoption by the Jordanian Bank Customers

H6c: There is a moderating role of customer involvement in the relationship between Compatibility and Islamic Bank Adoption by the Jordanian Bank Customers

H6d: There is a moderating role of customer involvement in the relationship between Bank reputation and Islamic Bank Adoption by the Jordanian Bank Customers

H6e: There is a moderating role of customer involvement in the relationship between Complexity and Islamic Bank Adoption by the Jordanian Bank Customers.

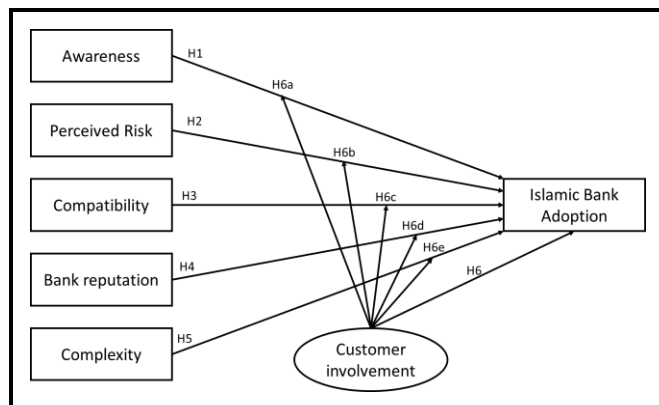


Figure 1: Research Framework

3. Research Methodology

In this research, the researcher will utilize quantitative research methods. Primary data was collected from the potential customers of the Islamic banks in Jordan. Therefore, simple random sampling was utilized and 419 questionnaires were distributed to the Jordanian banks potential customers.

4. Measurement of Variables

The development of instruments was carefully executed in order to reflect the nature of this study. As such, the questionnaire was designed to include 35 items and the variables were measured using the five-point Likert scale, with five standing for 'Strongly Agree' and one standing for 'Strongly Disagree' (Brislin, 1970). Furthermore, the validated instruments shown in Table 1 are adopted from related previous studies to measure the variables of this study.

Table 1: Questionnaire Development

Variable	No. of items	Reference
Awareness	5	(Zairah Ab Rahim & Samuri, 2018)
Perceived Risk	5	(Chavali & Kumar, 2018)
Compatibility	5	(Atkinson, 2007; Teo et al., 1997)
Bank Reputation	5	(Nayanajith & Damunupola, 2019; Sikdar & Makkad, 2015)
Complexity	5	(Awwad & Ghadi, 2010)
Customer Involvement	5	(Solem, 2016)
Islamic Bank Adoption	5	(Shahnaz et al., 2017)

5. Findings Discussion

The current study has assessed the proposed model in two steps consisting of the assessment of the measurement model (outer model) and the assessment of the structural model (inner model). However, prior to these two steps, a brief explanation is given regarding the respondents' profiles.

5.1 Respondent Profile

In the demographic information section, respondents in the Saudi Electricity Company were categorized by their Gender, Age group, Employment Level, as displayed in Table 2.

Table 2: Questionnaire Development

Item	Options	Frequency	Percentage
Gender	Male	292	71.7
	Female	115	28.2
Age group	Below 25 years	14	3.3
	26 – 30 years	108	25.7
	31 – 35 years	94	22.4
	36 – 40 years	85	20.2
	41 – 45 years	65	15.5
	46 – 50 years	38	9.0
	51 years and above	15	3.5
Banking Services Type	Conventional Banking	201	47.9
	Islamic Banking	97	23.1
	Both	121	28.8
Education Level	High school or below	64	15.2
	University Degree	253	60.3
	Postgraduate	102	24.3
	Degree		

5.2 Measurement Model

The research model of this study was tested using Smart PLS 3.3. In addition, an examination was conducted in regard to the measurement model (validity and reliability of the measures) and the structural model (testing the hypothesized relationships). As a result, two items scored low level of factor loadings, which are AWA3, CRI3, CRI5, CTY5, CXY1, IBA2, PDR2, and REP3 (-0.069, 0.068, -0.054, -0.150, 0.072, -0.081, 0.080 and -0.124 respectively). These values are below the cutoff point for Factor Loadings, as recommended by Hair et al. (2017).

Moreover, the values of the “AVE, composite reliability, and Cronbach Alpha” did not meet the recommended values, namely; to be above 0.5, 0.7, and 0.7 respectively. Therefore, a form of modification was considered in the second run and, consequently, AWA3, CRI3, CRI5, CTY5, CXY1, IBA2, PDR2, and REP3 were deleted in order to achieve satisfactory levels of Factor loadings, Cronbach Alpha, Composite Reliability, and Average Variance Extracted (AVE). Overall, all variables have achieved the cutoff point for Factor Loadings, Cronbach Alpha, Composite Reliability, and Average Variance Extracted (AVE), as illustrated in Table 3 and Figure 2.

Table 3: Convergent Validity

Construct	Item	Loading	Cronbach's Alpha	CR	AVE
Awareness (AWA)	AWA1	.763	.799	.869	.623
	AWA2	.777			
	AWA4	.807			
	AWA5	.809			
Customer involvement (CRI)	CRI1	.828	.803	.884	.718
	CRI2	.804			
	CRI4	.907			
Compatibility (CTY)	CTY1	.755	0.827	.885	.658
	CTY2	.827			
	CTY3	.825			
	CTY4	.836			
Complexity (CXY)	CXY2	.872	.873	.913	.724
	CXY3	.856			
	CXY4	.854			
	CXY5	.820			
Islamic Bank Adoption (IBA)	IBA1	.838	.855	.902	.696
	IBA3	.822			
	IBA4	.840			
	IBA5	.838			
Perceived Risk (PDR)	PDR1	.800	.878	.916	.731
	PDR3	.896			
	PDR4	.884			
	PDR5	.837			
Bank reputation (REP)	REP1	.794	.849	.898	.689
	REP2	.830			
	REP4	.838			
	REP5	.856			

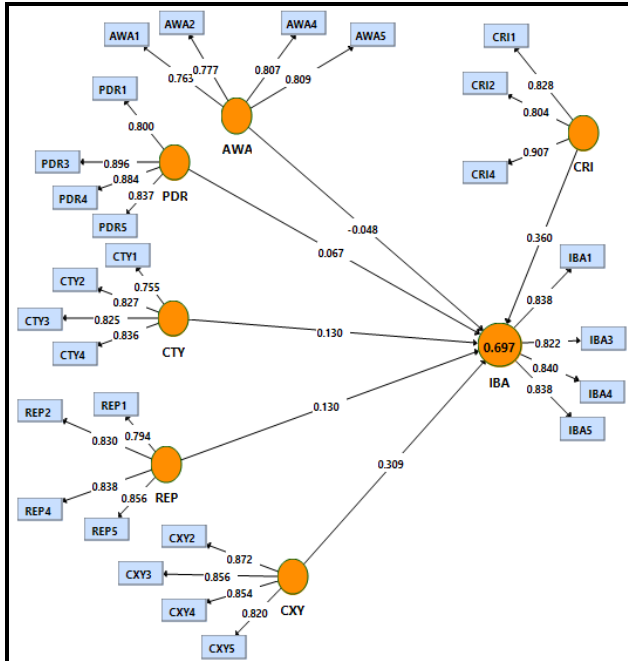


Figure 2: Model of PLS algorithm results (Measurement model)

Secondly, the discriminant validity was examined in order to assess how truly distinct a construct is from other constructs. In the area of distinguishing validity, the correlations between variables. In the estimation of the model did not exceed 0.95, as suggested by Kline (2016) (Kline, 2016), and the validity was tested based on measurements of the correlations between constructs and the square root of the average variance derived for a construct (Fornell & Larcker, 1981; Kline, 2016). Hence, Table 4 contains the results of the Fornell and Larcker Criterion and shows no value above the recommended cutoff point of 0.9 (Fornell & Larcker, 1981).

Table 4: Discriminant Validity (Fornell and Larcker index)

	AWA	CRI	CTY	CXY	IBA	PDR	REP
AWA	.789						
CRI	.673	.847					
CTY	.659	.604	.811				
CXY	.623	.722	.73	.851			
IBA	.585	.753	.669	.766	.834		
PDR	.612	.611	.700	.634	.639	.855	
REP	.554	.633	.623	.688	.674	.730	.83

5.3 Structural Model

The structural model represents the theoretical or conceptual element of the path model. Also referred to as the inner model in PLS-SEM, the structural model

includes the latent variables and their path relationships (Hair et al., 2017). The next step after the evaluation of the measurement model is to assess the structural model. In sync with PLS-SEM, there are four steps required to assess the structural model according to Hair et al. (2017) including the assessment of collinearity (step one), assessment of the path coefficients (step two), coefficient of determination (R^2 value) (step three), and effect size f^2 (step four) (Hair et al., 2017).

Table 5 illustrates the results of PLS bootstrapping consisting of the Beta value, t-values, p-values, hypothesis results (whether supported or not) confidence interval, f^2 , and VIF scores. Furthermore, Figure 3 summarizes the results of the structural model and PLS bootstrapping.

Table 5: Summary of Structural Model (PLS bootstrapping)

Hypothesis	Std. Beta	Std. Error	T values	P values	Decision	Confidence Intervals		f2	Effect size	VIF	R ²	Q ²	
						Lower	Upper						
H1	AWA-> IBA	-.063	.039	1.621	P>.05 (.053)	Rejected	-.125	-.001	.006	No effect	2.337	.726	.492
H2	PDR -> IBA	-.063	.059	1.075	P>.05 (.141)	Rejected	-.144	.056	.004	No effect	3.044		
H3	CTY -> IBA	.127	.046	2.771	P<.001 (.003)	Supported	.061	.213	.079	Weak	3.084		
H4	REP -> IBA	.254	.065	3.918	P<.001 (.000)	Supported	.127	.334	.169	Medium	3.102		
H5	CXY -> IBA	.349	.057	6.168	P<.001 (.000)	Supported	.252	.439	.431	Substantial	3.186		
H6	CRI -> IBA	.383	.049	7.901	P<.001 (.000)	Supported	.295	.453	.495	Substantial	2.753		
H6a	AWA*CRI -> IBA	.001	.048	.001	P>.05 (.500)	Rejected	.091	.267	.001	No effect	2.132		
H6b	PDR *CRI -> IBA	-.201	.060	3.323	P<.001 (.000)	Supported	-.092	.064	.158	Medium	2.885		
H6c	CTY*CRI -> IBA	-.033	.045	.731	P>.05 (.232)	Rejected	-.271	-.091	.002	No effect	2.766		
H6d	REP*CRI -> IBA	.201	.056	3.564	P<.001 (.000)	Supported	-.101	.052	.161	Medium	2.856		
H6e	CXY*CRI -> IBA	.092	.066	1.409	P>.05 (.080)	Rejected	-.025	.179	.011	No effect	3.207		

*** P<0.001, ** P<0.01, * P<0.05

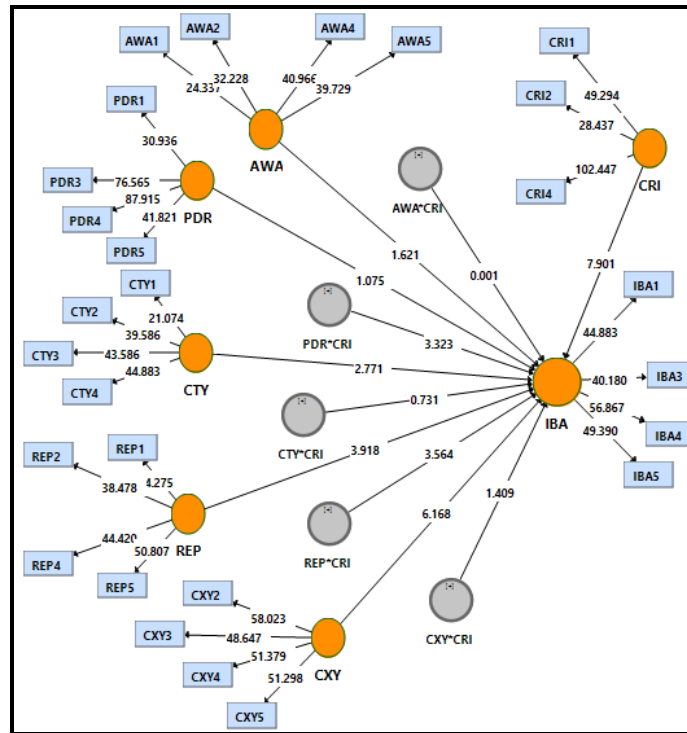


Figure 3: Structural Model (PLS bootstrapping)

5.3.1 Assessment of the structural model for collinearity issues

The assessment of collinearity is a crucial assumption that must be met in order to make certain that multicollinearity did not occur. Collinearity diagnostics were carried out to examine and identify the multicollinearity concerns associated with the predictors. Investigating the Variance Inflation Factor is one way to accomplish this goal (VIF). (Hair et al., 2017) state that the VIF has a standard cut-off value that is either equal to or lower than 3.3, which is the value that Diamantopoulos and Siguaw (2006) advocate using. Table above provides the results of the multicollinearity test values, and shows no VIF value above 3.3 (Diamantopoulos & Siguaw, 2006).

5.3.2 Assessing the significance of the structural model relationships.

The structural paths in the structural model were “assessed to determine the significance of the path coefficients. The significance of the structural paths was assessed by inspecting the path coefficients and the t-values. To test the hypothesis, the PLS algorithm and bootstrapping were carried out. The path coefficients and R2 were obtained from the PLS algorithm while the t-values were obtained from the bootstrapping”. As recommended by Hair et al. (2017), if the p-value is equal or less than .05, the accepted level of t-value is at least 1.645. As per the **Error! Reference source not found.**, all of the t-value scores have met the accepted level recommended by Hair et al. (2017) except for H1, H2, H6a, H6c and H6e which did not meet the terms, therefore H1, H2, H6a, H6c and H6e will be rejected.

5.3.3 The Coefficient of Determination (R2)

Furthermore, Hair et al. (2017) detailed 3 different levels of R² scores. If R² is above .75 it will be considered as substantial, if R² is above .50 it will be considered as moderate, and if R² is above .25 it will be considered as weak, while if R² below .25 it will be considered as unacceptable. As per Table 6, the scores of R² for IBA is considered as in Moderate level as recommended by Hair et al. (2017).

Table 6: Path Coefficient (R²)

Construct	R ²
IBA	.726

5.3.4 Assessment of the effect size (f²)

In this stage, the effect sizes (f²) have been evaluated. The value of f² is connected to the relative impact of a predictor construct on endogenous constructs. According to Sullivan and Feinn (2012), aside from reporting the p-value, both the substantive significance (effect size) and statistical significance (p-value) are crucial to be reported (Sullivan & Feinn, 2012). Furthermore, in order to

measure the effect size, a guideline set by Cohen (1988) has been followed (Cohen, 1988). Based on the study of Cohen (1988), the values of 0.02, 0.15, and 0.35 represent small, medium, and large effects respectively (Cohen, 1988). Thus, H1, H2, H6a, H6c and H6e have f² values less than .02 which indicated no effect at all, H3 has f² values more than .02 which indicated weak size of effect, H4, H6b and H6d have f² values more than .15 which indicated medium size of effect, while H5 and H6 have f² values more than .35 which indicated substantial size of effect.

5.3.5 Assessment of the Predictive Relevance (Q²)

Table 7 provides “the Q2 values (along with the R2 values) of all the endogenous constructs. All the Q2 values were above zero and therefore supported the model’s predictive relevance regarding the endogenous latent variables” as recommended by Stone (1974), Geisser (1974) and Hair et al. (2017). Finally, “there was no issue associated with a single-indicator construct as a predictor construct in this study” (Geisser, 1974; Hair et al., 2017; Stone, 1974).

Table 7: Path Coefficient (Q²)

Construct	Q ²
IBA	.492

5.3.6 Assessment of the Moderating Effect

After testing the direct effect, the moderation hypothesis is tested. A moderator is characterized as a third construct that can change or affect the relationship between the “independent and dependent variables” (Dawon, 2014; Hair et al., 2017). This study used continuous types of data as the moderation, and the analysis is conducted using the SmartPLS 3.3.

The moderation assessment follows the Orthogonalizing Approach (Henseler & Chine, 2010). This approach builds on the indicators approach and requires creating all product indicators of the interaction terms (Ramayah et al., 2018).

Table 8: R square change

R ² included moderator	R ² excluded moderator
.726	.697

The first step is to create the interaction effect between the two indicators of Perceived Risk (PDR) and Customer involvement (CRI). As shown in table 4-15, The R2 for the main model (without the interaction) is .697, and with the interaction effect model, the R2 is .726. The R2 change about 0.029 (additional variance). Next, the effect size is calculated using the following formula:

$$f^2 = (R^2 \text{ included moderator} - R^2 \text{ excluded moderator}) / (1 - R^2 \text{ included moderator})$$

$$f^2 = (.726 - .697) / (1 - .726)$$

$$f^2 = .105$$

Based on the guideline by Kenny (2018), 0.005, 0.01 and 0.025 respectively show the standards for small, medium, and large effects sizes. Therefore, based on the value of .105, it can be concluded that the effect size is large (Kenny, 2018).

Table 9: Moderation Model Assessment

	Std. Beta	Std. Error	T values	f ² (For the moderation)	P values
AWA*CRI -> IBA	.001	.048	.001	.105	.500
PDR *CRI -> IBA	.201	.060	3.323	.105	.000
CTY*CRI -> IBA	.033	.045	.731	.105	.232
REP*CRI -> IBA	.201	.056	3.564	.105	.000
CXY*CRI -> IBA	.092	.066	1.409	.105	.080

6. Research Implications

The study carries significant implications for the Islamic banking sector in Jordan. It underscores the importance of aligning services with Islamic principles, enhancing bank reputation, simplifying systems, and promoting customer involvement to boost the adoption of Islamic banking services. The study recommends that Islamic banks focus on system compatibility with Islamic Sharia and emphasize user-friendliness to facilitate adoption. Additionally, marketing strategies highlighting achievements and positive reviews can be valuable for attracting customers. Ultimately, these findings offer valuable insights for Islamic banks in Jordan to enhance their services and encourage customer adoption.

7. Future Recommendations

This study has a lot of potentials, many of them could be addressed here in order to make sure that future researchers are aware of them, and to list few:

- Focusing on one bank or a small number of banks in one of the cities in Jordan (Amman for example) as case study with systematic selection would generate more certain results on the factors with that affect adopting Islamic Banking services.
- Studying a larger sample size may return with more options in the analysis and results.
- Following the mix methods (i.e. including the interviewing) as a methodology for future studies would spot the light on the customers feelings and opinions that are worthy of studying
- In this study, the bank reputation as an independent variable, while a good sum studies considered the bank reputation as a mediating

effect, it is recommended that the future studies considering the reputation of the banks as mediating effect on the relationship between the factors that affect adopting Islamic Banking Services.

- Redoing the same study but with other independent variables would come back with different determinants of the adopting Islamic Banking Services.
- Many states in the Middle East are under financial and political conflicts and crises, like Jordan, therefore, the results of this study might be changed in the future, redoing this study in the future on the same research population would bring different results, especially if Jordan managed to reach more stable economy and banking sector.

References

- [1] Akhtar, N., Mehmood, M. T., Pervez, M. Z., Aslam, F., & Akhtar, H. M. A. (2019). Factors influencing the perception of customers in Islamic banking: a case study in Pakistan. *International Review of Management and Business Research*, 5(3), 844.
- [2] Ali, M., Raza, S. A., Khamis, B., Puah, C. H., & Amin, H. (2021). How perceived risk, benefit and trust determine user Fintech adoption: a new dimension for Islamic finance. *Foresight*, 23(4), 403–420. <https://doi.org/10.1108/FS-09-2020-0095>
- [3] Ali, Q., Yaacob, H., & Mahalle, N. (2018). Empirical Investigation of Islamic Banking Adoption in Brunei. *International Journal of Islamic Banking and Finance Research*, 2, 24.38. <https://doi.org/10.54655/ijibfr.v2n2p24>
- [4] Al-Oqool, M. A., Okab, R., & Bashayreh, M. (2020). Financial Islamic banking development and economic growth: A case study of Jordan. *International Journal of Economics and Finance*, 6(3), 72–79.
- [5] Anouze, A. L. M., Alamro, A. S., & Awwad, A. S. (2019). Customer satisfaction and its measurement in Islamic banking sector: a revisit and update. *Journal of Islamic Marketing*, 10(2), 565–588. <https://doi.org/10.1108/JIMA-07-2017-0080>
- [6] Assaf, A., & Tuama, H. Y. (2018). Islamic Banking in Jordan and Jordanian Customers, Attitudinal differences Study. *European Journal of Economics, Finance and Administrative Sciences*, 1(55), 1–10.
- [7] Atkinson, N. L. (2007). Developing a questionnaire to measure perceived attributes of eHealth innovations. *American Journal of Health*

- Behavior, 31(6), 612–621.
- [8] Awwad, M. S., & Ghadi, M. Y. (2010). Investigating of factors influencing the intention to adopt mobile banking services in Jordan. *Dirasat: Administrative Sciences*, 37(2), 545–556.
- [9] Aziz, S., & Afaq, Z. (2018). Adoption of Islamic banking in Pakistan an empirical investigation. *Cogent Business & Management*, 5(1), 1548050. <https://doi.org/10.1080/23311975.2018.1548050>
- [10] Brislin, R. W. (1970). Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- [11] Chavali, K., & Kumar, A. (2018). Adoption of mobile banking and perceived risk in GCC. *Banks & Bank Systems*, 13(1), 72–79.
- [12] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). L. Erlbaum Associates.
- [13] Diamantopoulos, A., & Siguaw, J. A. (2006). Formative Versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration. *British Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- [14] El Mallouli, A., & Sassi, H. (2021). Determinants of Islamic banking products and services adoption in Morocco: a conceptual framework. *Journal of Islamic Marketing*, ahead-of-p(ahead-of-print). <https://doi.org/10.1108/JIMA-06-2020-0194>
- [15] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- [16] Gait, A. H., & Worthington, A. C. (2007). *A primer on Islamic finance: Definitions, sources, principles and methods*. University of Wollongong.
- [17] Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101–107.
- [18] Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equations modeling (PLS-SEM)* (2nd ed.). SAGE.
- [19] Haron, S., & Ahmad, N. (2000). The effects of conventional interest rates and rate of profit on funds deposited with Islamic banking system in Malaysia. *International Journal of Islamic Financial Services*, 1(4), 1–7.
- [20] Khan, M. Y., Saleem, F., Khan, M. J., & Din, S. U. (2020). Factors Influencing Islamic Banking Adoption: Evidence From Pakistan. *Int. Trans. J. Eng. Manag. Appl. Sci. Technol*, 11(7), 1–11.
- [21] Khattak, N., & Rehman, K. (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management*, 4(1), 662–671.
- [22] Khattak, N., & Rehman, K. (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management*, 4(1), 662–671.
- [23] Kline, R. B. (2016). *Principles and practice of structural equation modeling*. The Guilford Press.
- [24] Latip, M., Yahya, M. H., & Junaina, M. (2017). Factors Influencing Customer's Acceptance of Islamic Banking Products and Services. *Ikonomika*, 2(1), 1–18.
- [25] Mahadin, B. K., & Akroush, M. N. (2019). A study of factors affecting word of mouth (WOM) towards Islamic banking (IB) in Jordan. *International Journal of Emerging Markets*, 14(4), 639–667. <https://doi.org/10.1108/IJOEM-10-2017-0414>
- [26] Muhammad, A., & Chin-Hong, P. (2017). Acceptance of Islamic banking as innovation: a case of Pakistan. *Humanomics*, 33(4), 499–516. <https://doi.org/10.1108/H-11-2016-0085>
- [27] Nawafleh, S., Al-Ajlouni, M. I., Al-Tamimi, J. A., & Shiab, A. Q. (2018). Factors Affecting Client's Intentions of Use Islamic Financing: Filed Study in the Jordanian Context. *Innovation Management and Education Excellence through Vision 2020*.
- [28] Nayanajith, D. A. G., & Damunupola, D. (2019). E-Service Trustworthiness and Adoption of Online Banking in the Presence of a Moderator: A Relational Study. *Journal of Environmental Science, Computer Science and Engineering & Technology*, 8(4), 265–289. <https://doi.org/10.24214/jecet.B.8.4.>
- [29] Qayyum, F., & Ali, H. (2012). FACTORS DETERMINING CUSTOMERS' ADOPTION OF INTERNET BANKING: A Quantitative Study of Swedish Customers. Mälardalen University.
- [30] Ramadan, Z. S. (2013). Jordanian criteria for Islamic banks selection. Evidence from the Jordanian banking sector. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(3), 139–145.
- [31] Rammal, H. G., & Zurbruegg, R. (2019). Awareness of Islamic banking products among Muslims: The case of Australia. In *Islamic Finance* (pp. 141–156). Springer.
- [32] Rogers, E. M. (2003). *Diffusion of Innovations* (5th Editio).
- [33] Roshan, A. M. F., & Jahufer, A. (2018). Customer satisfaction and awareness of Islamic

banking system in Ampara. Faculty of Islamic Studies and Arabic Language, South Eastern University of

- [34] Selvanathan, M., Nadarajan, D., Zamri, A. F. M., Suppramaniam, S., & Muhammad, A. M. (2018). An exploratory study on customers' selection in choosing Islamic banking. *International Business Research*, 11(5), 42–49.
- [35] Shahnaz, M. N., Rozaimah, Z., Fong, A. S., Mahdzan, N. S., Zainudin, R., & Au, S. F. (2017). The adoption of Islamic banking services in Malaysia. *Journal of Islamic Marketing*, 8(3), 496–512. <https://doi.org/10.1108/JIMA-08-2015-0064>
- [36] Sikdar, P., & Makkad, M. (2015). Online banking adoption. *International Journal of Bank Marketing*.
- [37] Solem, B. A. A. (2016). Influences of customer participation and customer brand engagement on brand loyalty. *Journal of Consumer Marketing*, 33(5), 332–342.
- [38] Stone, M. (1974). Cross-validation and multinomial prediction. *Biometrika*, 61(3), 509–515.
- [39] Sudarsono, H., Tumewang, Y. K., & Kholid, M. N. (2021). Customer Adoption of Islamic Banking Services: Empirical Evidence from Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(3), 1193–1204.
- [40] Sullivan, G. M., & Feinn, R. (2012). Using Effect Size-or Why the P Value Is Not Enough. *Journal of Graduate Medical Education*, 4(3), 279–282. <https://doi.org/10.4300/JGME-D-12-00156.1>
- [41] Teo, T. S. H., Tan, M., & Buk, W. K. (1997). A contingency model of Internet adoption in Singapore. *International Journal of Electronic Commerce*, 2(2), 95–118.
- [42] Zairah Ab Rahim, N., & Samuri, N. (2018). Green IT: an Awareness Survey Among Academicians and Administrative Staffs in Malaysian Public Universities. *International Journal of Engineering & Technology*, 7(3.7), 197–201.