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# Financial Inclusion and Economic Well-Being: Evidence from Islamic Pawnbroking (*Ar-Rahn*) in Malaysia

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## Abstract

This study examines the impact of financial inclusion through Islamic pawnbroking, or *ar-rahn* financing facilities, on the economic well-being of *ar-rahn* clients in Malaysia. The data set consists of primary data assembled through questionnaire surveys conducted in 2010 and 2016 and analyzed by structural equation modeling. The findings demonstrate that financial inclusion through patronizing *ar-rahn* significantly improves client well-being. The use of *ar-rahn* financing for production-related economic activity is significant in enhancing individual well-being resulting in microbalancing as well as improvements in financial and socioeconomic development. This study concludes that *ar-rahn* helps overcome voluntary financial exclusion due to *Shari'ah* compliance in the face of the social failure of Islamic banking. Improved financial inclusion contributes to the everyday lives of clients who may have nonliquid assets in small values kept for security purposes. As a policy recommendation, this study suggests that policymakers and *ar-rahn* institutions should play a proactive role in improving the outreach of *ar-rahn* services. Providing active support and the regulatory environment necessary for greater financial inclusion also contributes to women's empowerment.

***Keywords:*** Financial inclusion; Economic well-being; Societal well-being; Islamic pawnbroking (*ar-rahn*)

***JEL codes:*** **G21, G23, G51, I31, O17, P46**

## 1. Introduction

With the emerging discourse and practices around Millennium Development Goals, succeeded by Sustainable Development Goals (SDGs),[1] financial inclusion has progressively received increased attention from academics and policymakers (United Nations, 2006). As a developmental tool, financial inclusion is perceived as a way to improve people's livelihoods, reduce poverty, and support inclusive and sustainable development through access to "finance." *The Global Financial Development Report 2014* consequently reported that most financial institutions and regulators in around 50 countries have pushed for improved financial inclusion. The World Bank set a target for attaining universal financial access by 2020. Therefore, policymakers have developed strategies for endorsing financial inclusion as a priority, particularly in emerging and developing economies, where access to financial services tends to lag behind that of more advanced economies.

Financial inclusion aims to facilitate the access of low-income households/firms to financing in either formal or informal institutionalized credit markets, emphasizing the former. For example, it aims to overcome voluntary exclusion for religious reasons such as *ribawi* transactions or involuntary exclusion due to specific structural factors such as lack of income. Within economies, involuntary financial exclusion remains an indispensable developmental issue. Estimates suggest that about half of the 4.6 billion adults globally do not have access to rudimentary financial services (Realini and Mehta, 2015), and it appears that most of those people reside in Asia, Africa, Latin America, and the Middle East.

Financial access in a comprehensive sense goes beyond financial success, and hence, a chief concern for the poor as well as small entrepreneurs is finding capital sources to sustain their lives. These "unbankable" people usually do not possess the necessary access to start-up financing in the form of conventional debt-based financing or equity financing through Islamic finance in the formal credit markets. Thus, they must rely on informal finance or nonbanking financial institutions, such as pawnshops, moneylenders, shopkeepers, traders, and landlords, from which services can be astronomically expensive depending on the nature of the informality present.

In endorsing financial inclusion within SDGs, conventional finance has partially succeeded in developing mechanisms to provide greater access, such as development funds, NGO financing, microfinance, small and medium enterprise (SME) financing, and microinsurance. As Bauchet et al. (2011) stated that access to microcredit has expanded dramatically over the past 3 decades, as nearly 200 million microborrowers have been successful in engaging formal financial services. Notwithstanding their success, the microfinance industry has faced challenges in achieving a maintainable impact on poverty alleviation through economic empowerment. Iqbal and Mirakhor (2012) summarized such challenges as high interest rates on loans to the poor, which further impose an impetus on the recipient to participate in activities that in turn produce returns higher than the cost of funding. Thus, financial inclusion can turn into increased societal indebtedness.

As for religiously motivated voluntary financial exclusion, several financial practices and institutions have emerged within the Islamic sphere. The main objective of the Islamic economic system is to construct a developmental paradigm by prioritizing individual well-being through contributing to social good (Asutay, 2012; Jan and Asutay, 2019) in the form of *maslahah,* or the welfare of society (Masukujjaman et al., 2016). Therefore, the Islamic moral

[1] Abbreviations: GFI, adjusted goodness of fit index; AGFI, adjusted goodness of fit index; AVE, average variance extracted; CFA, confirmatory factor analysis; CFI, comparative fit index; CR, composite reliability; EFA, exploratory factor analysis; GFI, goodness of fit index; GST, goods and services tax; IW, individual well-being; NNFI, non-normed fit index; OIC, Organisation of Islamic Cooperation; RMSEA, root-mean-square error of approximation; SDGs, Sustainable Development Goals; SEM, structural equation modelling; SMEs, small and medium enterprises; SW, societal well-being; TLI, Tucker Lewis index.

economy lays the theoretical basis for individual emancipation in terms of freedom from need and empowerment in terms of development and growth opportunities (Jan and Asutay, 2019). While various definitions of well-being can be offered, such as economic, human, and subjective (Sen, 1990, 1993, 1999; Giri, 2000; Naqvi, 2003; Aydin, 2017), Islamic moral economy essentializes human or individual (not methodological individual) well-being in its fullness and instrumentalizes economic well-being for such an objective. The individual objective function is constituted through *falah* or salvation and happiness in this world and the hereafter (two-dimensional *falah* function) (Naqvi, 2003; Asutay, 2007, 2013), which requires the individual to be independent of needs and domination, as Sen (1987, 1990, 1993) posited. Economic well-being, therefore, serves to alleviate dependence on material needs so that individual *falah* can be facilitated. Hence, in the past, provision for the socioeconomic needs of individuals through traditional Islamic institutions, such as *zakat* and *waqf*, aimed to free people from need. In modern times in market-based economies, individuals must find ways to ensure that their needs are met. By doing so, well-being can be achieved in varying degrees, if not fully, despite the fact that traditional institutions still operate to mitigate the consequences of market positioning. However, as in Sen's (1987, 1990, 1993) paradigm, the formation of enabled and functioning individuals is the aim of Islamic normativeness (Naqvi, 2003; Jan and Asutay, 2009), and therefore, individuals are expected to put forth the necessary efforts, if they can, to ensure their *falah* or well-being by also arranging economic well-being to serve the *falah* objective.

The emergence of Islamic finance within such a normative world was initially concerned with contributing to the emergence of enabled and functioning individuals as expressed by the Islamic objective of emancipation and empowerment. Therefore, theoretically, Islamic financing is expected to be in the form of profit-and-loss sharing and risk-sharing so that the wealth generated can be extended to the larger part of society (Ayub, 2007; Asutay, 2013). Within the Islamic normative world, financing must avoid interest or *riba*, which is considered exploitative, and expropriation, uncertainty (*gharar*), and speculation (*maisir*) (Asutay, 2015).

As part of the Islamic economics discourse, the Islamic finance industry is deliberated as an institutional solution to increase financial inclusion among Muslim adults (Mohieldin et al., 2011) through empowering them while expanding wealth generation through Islamic-compliant financial practices. Nevertheless, since the emergence of Islamic financial institutions in the 1970s, it is observed that they have failed to develop products, instruments, and particular programs to reach out to the financially excluded beyond the point of delivering *Shari'ah* complainant financial inclusion (Asutay, 2012). Therefore, there is a need for innovative financial engineering and a change in the operational philosophy and the institutional logic of Islamic finance, which is congruent with the aspirations of the Islamic moral economy (Asutay, 2013). In responding to the social failure of Islamic banks, several programs have been established in several Muslim countries to provide *Shari'ah*-compliant microfinance and SME programs to enhance financial inclusion and economic empowerment. These programs are offered mainly by nonbanking financial institutions through state and public agencies, nongovernmental organizations, and banks. In Malaysia, one Islamic financing instrument and institution with the potential to achieve financial inclusion and economic empowerment and well-being is the *Shari'ah*-compliant equivalent of pawnbroking, namely, *ar-rahn*.

*Ar-rahn*, as Islamic pawnbroking, is a contract involving pledging an item as security that becomes binding once the possession of the pledge has occurred (Bhatt & Sinnakkannu, 2008). Granted that the importance of helping the poor and the needy is emphasized and strongly encouraged within the Islamic faith, *ar-rahn* plays an imperative role in providing financial support for those people without involving the elements of interest, or *riba*, as well as uncertainty or *gharar,* which are further prohibited in Islam. In addition, *ar-rahn* acts as a motivation to encourage savings and investments involving buying and selling gold, where customers benefit from differences in gold prices (Hisham et al., 2013). Thus, *ar-rahn* as a nonbanking financing solution can be considered to help individuals with a certain amount of jewelry to become better enabled and functioning at an individual level so that individual and societal well-being in the form of *falah* can be served by economic well-being as expected by Islamic moral economy (Asutay, 2013). Due to their increasing popularity, *ar-rahn* institutions have been considered in recent years for formal regulation to ensure the robustness of their processes.

Limited literature analyzes the role of nonbanking financial institutions, such as pawnshops and *ar-rahn,* in positively contributing to financial inclusion whereby individual and economic well-being is served. This study thus aims to explore and examine the impact of *ar-rahn*—as an Islamic financing instrument in the form of nonbanking financial institutions and arrangements—on economic well-being through enhanced financial access for unbankable individuals in Malaysia. The research question in this study is therefore based on the hypothesis that barriers to financial inclusion for the poor may result in their patronizing of financing available in the informal credit sector, such as *ar-rahn*, which consequently has a positive impact on individual and societal economic well-being. Thus, this study explores and examines whether the informal financing option in the form of *ar-rahn* has contributed to the well-being of individuals engaged in such transactions through the moderating effect of financial inclusion.

In this evaluative research within financial inclusion-related policy development, two data sets were assembled through questionnaire surveys conducted in 2010 and 2016. A comparative analysis was employed to observe and examine changes in the profile of *ar-rahn* customers, their reasons for using *ar-rahn*, preferable sources of financing, and the purpose of borrowing, leading to the economic well-being of individuals through participation in this informal source of financing as part of financial inclusion.

The study contributes to the limited literature on *ar-rahn* by considering the economic well-being impact of *ar-rahn* through financial inclusion in mobilizing the resources in the informal credit market through comparing two time-period-based perceptions by the *ar-rahn* users, which should be considered a significant contribution. Considering Islamic banks' failure to increase financial inclusion in the form of empowering the unbankable, studies on informal financing methods, including *ar-rahn*, have become important.

Following this introduction, the remainder of the paper is structured as follows. Section 2 presents an overview of the existing literature on the financial inclusion and economic development nexus as well as the importance of informal financing in the form of *ar-rahn*. Section 3 describes the research method for data collection and the estimation procedure used for data analysis. Section 4 discusses the comparative analyses of *ar-rahn* client profiles with data sets from two different periods 6 years apart, using structural equation modeling (SEM) to examine *ar-rahn's* impact on individual and societal economic well-being. Section 4 also presents the results by examining both the direct and indirect effects of *ar-rahn* on economic well-being through financial inclusion. Concluding remarks are briefly presented in Section 5.

## 2. Financial Inclusion, Well-Being, Development, and Islamic Pawnbroking (*Ar-Rahn*): A Literature Review

Following the global financial crisis and the emergence of SDG discourse, financial inclusion has since become part of the global development agenda. Aziz (2015), the former governor of the Central Bank of Malaysia, in her keynote address at the World Bank's Asian Region Launch, stated that financial inclusion had become an extra pertinent tool for improving the livelihood of the poor and disadvantaged. More importantly, increased financial inclusion enables all citizens, regardless of their socioeconomic class, to participate in the economy and benefit from economic progress. The role of financial inclusion in contributing to this balance and sustainable economic growth and development is further stated in the *Central Bank of Malaysia Financial Sector Blueprint* 2011–2020.

The aim of financial inclusion is described as increasing the number of people in a society who use formal finance (Sarma, 2008). To understand the importance of financial inclusion through reverse meaning, financial exclusion should be understood to develop the necessary policies to develop financial inclusion. Financial exclusion, therefore, differentiates the population into users and nonusers of formal financial services. In addition, nonusers of formal financial services are distinguished through voluntary (or self) exclusion and involuntary exclusion. People may be categorized as voluntarily self-excluding for various cultural or religious reasons. According to Ahmed (2013), this is specifically true of Muslims who do not use conventional, interest-based financing due to the Islamic position prohibiting *riba*. In evidencing this, findings by Demirguc-Kunt et al. (2013) demonstrated that as many as 51 million adults in Organisation of Islamic Cooperation (OIC) countries were excluded from formal financial institutions as they did not have bank accounts. They further found that in order to evade *riba*, 20%–40% of the Muslims had been opting out of conventional microfinance, which is also reported by Karim et al. (2008). Considering the sizable number of financially excluded Muslims, *Shari'ah*-compliant financial services are considered an alternative system by the mentioned studies, as they can overcome voluntary exclusion for religious reasons. Lack of engagement with banks is additionally due to a sociocultural barrier—in the case of Muslims, due to Islamic norms in the absence of Islamic financial services, and in the case of low-income people, due to lack of any financial power, resulting in banks not extending any services to them (Corr, 2006).

The crucial problem lies with involuntary exclusion because those in need of financial services are unable to have their demands met. For instance, the poor are involuntarily excluded from formal financial services and credit markets due to asymmetric information, moral hazards, and adverse selection as commonly put forward by financial institutions, as they claim that screening, monitoring, and enforcement of the poor will create further transaction costs for the financial institutions providing financing (Ibtissem and Bouri, 2013). Therefore, the formal credit market and the financial sector is generally reluctant to provide financing to the "unbankable individuals" due to the high costs associated with small transactions, the shortage of acceptable collateral, the absence of the basic requirements needed for financing, and geographic isolation (Iqbal and Mirakhor, 2013). The unbankable nature of the poor further refers to the absence of the financial means necessary to engage with banks and financial institutions, and therefore, there is a need to develop various financial inclusion policies to empower individuals so that they too can be stakeholders. Financial exclusion for the lower-income and poor segments of the society, moreover, could be due to the nature and prices of the products offered by the financial system (The World Bank, 2008). Another reason for financial exclusion could be political reasons such as ethnic, racial, and religious discrimination (The World Bank, 2008) perpetuated by the hegemonic political regime in a country with such selective policies.

In responding to the increased financial inclusion emphasis by policy circles in recent years, a growing number of studies have emerged with evidence that financial development leads to economic growth, principally through such mechanisms as capital accumulation, and is intensely associated with investment efficiency (McKinnon, 1973; Shaw, 1973; Pagano, 1993; Levine, 2005; Klapper et al., 2006; Demirguc-Kunt et al., 2008). As part of financial development, financial inclusion and economic growth is believed to have bi-directional causality. For example, Kim et al. (2018) evidenced a positive relationship and mutual causality between financial inclusion and economic growth for the OIC (Organisation of Islamic Cooperation) member countries for the 1990-2013 period.

Consistent with this argument, among others, Ayyagari et al. (2008) found that financing obstacles were the most robust constraints in achieving economic growth in developing countries. Therefore, financial exclusion has been considered an important factor delaying economic growth and development, which rationalizes the drive toward increasing financial inclusion (Beck et al., 2008) beyond macro level financial and banking-oriented development.

Another essential aspect of financial inclusion is the impact of financial regulation. Anarfo et al. (2020) examined such a relationship in the case of Sub-Sharan Africa by considering the moderating role of financial stability for the 1990-2014 period through constituting a financial inclusion index. They, for example, found that tight prudential regulation can make access to financial difficult whereby may harm the financial inclusion policies. In addition, they provide a positively significant impact between financial stability, augmented financial regulation and financial inclusion.

Despite the increasing popularity of financial inclusion in theory and practice, the literature on the development aspect is also bourgeoning in various direction. In the available literature, most researchers have examined financial inclusion measures, and most of these studies are related to public access to a formal bank account. For instance, Demirguc-Kunt and Klapper (2012) used the *Global Financial Inclusion Database* (Global Findex) as an indicator to measure how adults in 148 economies manage their finances with regard to saving, borrowing, making payments, and managing financial risks. The data indicate that 50% of adults worldwide hold bank accounts within formal institutions. However, this varies across diverse regional groups and socioeconomic strata. Based on a sample of more than 65,000 adults from 64 countries, Demirguc-Kunt et al. (2013) used the Global Findex and Gallup World Poll databases to compare both the use and demand for formal financial services between Muslims and non-Muslim adults. The results display that Muslims are significantly less likely to engage with or patronize formal financial institutions, which could be due to religious and cultural reasons in conjunction with economic factors, the underdevelopment of the financial sector, and development issues. To further evidence thus, examining the impact of voluntary exclusion from financial services due to Islamic normative concerns of individuals in Jordan, Karlan et al. (2021) examined the impact of *Shari'ah* compliance on demand for household credit in the country. They found that the *Shari'ah* compliance nature of finance resulted in significantly increasing application for household credits. Furthermore, to emphasize the crucial nature of *Shari'ah* compliance on financing demand, they found religiously concerned individuals being less prince elastic, evidencing sacrificial behaviour.

Previous studies in this line of inquiry likewise examined the relationship between financial inclusion and income inequality. Burgess and Pande (2005) found that opening rural bank branches in rural unbanked areas in India assisted with reducing poverty locally. Similarly, Brune et al. (2011) found that having a saving account in Malawi's rural areas helped with the provision of valuable capital for agricultural use. In another case study, Allen et al. (2013) found that commercial banks could increase financial inclusion in Kenya by targeting underprivileged households. Furthermore, Cole et al. (2009) found that with higher levels of financial knowledge and skills, households could be inclusively financed, henceforth improving their wealth, education, and well-being.

Though there is an increase in public access to formal financial institutions in the world, this is not essentially an indication of the alleviation of poverty or economic well-being within a country. For instance, opening bank accounts does not help alleviate poverty, as individuals may not be able to use them actively due to a deficit of savings and credits. Moreover, having a bank account is insufficient to create financial inclusion as income generation ought to be the target of any such strategy to make individuals as stakeholders (Asutay, 2014). In other words, economic empowerment and increased stakeholding is a necessary condition for financial inclusion to produce positive impacts beyond having bank accounts.

There is, therefore, an emergent awareness that greater outreach must be coupled with greater account use rather than holding accounts to eradicate poverty and increase economic well-being effectively. Access to the proficient financial system allows the poor to actively contribute to development; thus, in addition, they will be protected against economic shocks (Swamy, 2014). Moreover, improving the availability and quality of financing can help with sustainable growth and productivity, particularly for start-ups or current entrepreneurs (Iqbal and Mirakhor, 2012). Furthermore, there has been a paradigm shift within economic development and poverty alleviation, signifying that society's micro-dynamics are vital for the attainment of individual and social development. This paradigm shift necessitates that such changes can merely be made possible through individual empowerment, which essentializes the importance of human development and capacity-building (Zaman and Asutay, 2009).

Limited work has emerged with regards to financial inclusion through the Islamic financing perspective despite the rapid developments and increase in global Islamic financing activity. Lately, Islamic finance as a means of increasing Muslim financial inclusion has become a popular topic, as *The Global Financial Development Report 2014* found that Islamic banking is connected to financial inclusion. Islamic finance addresses financial inclusion from two directions; through risk-sharing contracts as opposed to conventional debt-based financing and through employing wealth redistribution instruments (Mohieldin et al., 2011). The provision of *Shari'ah*-compliant financing should be considered an additional mechanism for Islamic finance to potentially overcome involuntary financial exclusion. Within Islamic finance spheres, various financial instruments, such as *shariah*-compliant microfinance, SME financing, micro-*takaful* (insurance), are intended to offer financial access to the poor with the objective of economic and social empowerment, hence increasing financial inclusion by using equity financing and risk-sharing contracts. Furthermore, redistributive instruments such as *zakah* (alms) as well as *zakah* funds, and *waqf* (pious endowments) based financing, *sadaqah* (charitable giving) in addition to *qard al-hassan* (benevolent loan) in the form of Islamic social financing is expected to complement risk-sharing instruments to offer a comprehensive approach to poverty reduction and economic growth (Iqbal, 2014; Obaidullah, 2008).

In their reflective empirical work, Ben Naceur et al. (2015) showed that despite the prevalence of physical access to financial services among OIC countries, they remain less financially inclusive than the rest of the world, in part because of religious self-exclusion. Conversely, Islamic banking in OIC countries seems to have slightly higher inclusion levels, suggesting that religious self-exclusion has been mitigated to some extent. In addition, although a regression analysis shows evidence for the positive correlation of credit to households and firms for financing investment, their empirical evidence is relatively weak. Consequently, Ben Naceur et al. (2015) proposed changes to the operating model of Islamic banks that may enhance financial inclusion, such as creating separate SME business units and improving the training of bank personnel in *Shari'ah*-compliant instruments.

In identifying the ultimate objective of any economic and financial activities in Islam, Chapra (2008) states that it lies in promoting people's well-being as conceptualized by *maqasid al-Shari'ah,* or the higher objectives of *Shari'ah*, which is well-defined as "human well-being." This paper, therefore, argues that *ar-rahn* is a financing instrument that enhances the financial inclusion of unbanked individuals, which consequently contributes to the well-being of the users. Although Islamic finance offers a wide range of profitable and efficient financial instruments, their impact on developmental issues is questionable (*see:* Asutay, 2007; Asutay, 2012). Thus, it is argued that *ar-rahn* could prospectively ensure Islamic ideals in contributing to social and economic justice, distributing income and wealth equally, and eliminating poverty.

The key objective of *ar-rahn,* as a historical Islamic financing instrument, is to aid those who face financial difficulties by protecting them from becoming involved with interest-based loans (Abdul Razak, 2011). This is particularly important in view of the failures of formal financial institutions in reaching out to unbankable segments of the population. Their everyday economic and financial challenges in getting on with their lives require such solutions that banks and financial institutions in the formal realm cannot respond. Therefore, the flexibility of *ar-rahn* in particular and pawnbroking, in general, provides an opportunity space for micro-entrepreneurs and poor individuals to engage in small business to generate income to survive on and respond to emergencies such as health expenditures. Consequently, within the informal or semiformal sphere, *ar-rahn* provides means to enhance the well-being of individuals. This is particularly important where the welfare state does not exist to take care of such needs, and the well-being of individuals and formal institutions would not extend financing to such poor people. The microdevelopment objective of informal institutional arrangements, such as *ar-rahn*, can be instrumental in serving well-being. Beyond conventional pawnbroking, *ar-rahn* also helps to complement the Islamic norm requirements by the concerned, which, through financial inclusion becoming voluntary religious exclusion extends the process of well-being in the society.

The existing studies in the literature relating to *ar-rahn* in the case of Malaysia have chiefly focused on the history and background of the establishment of *ar-rahn* and conservative pawnshops in Malaysia (Ismail and Ahmad, 1997; Imani and Shah Rizal, 2013), classifying the users of *ar-rahn* (Abd. Hamid and Abdul Aziz, 2003; Maamor et al., 2006), determining the factors affecting customer acceptance and the selection of specific pawnbrokers (Amin et al., 2007; Bhatt and Sinnakkannu, 2008; Mohd Sam et al., 2010; Appannan and Doris, 2011; Bashir Ahmad et al., 2012; Abdul Hamid et al., 2014), customer satisfaction with *ar-rahn* schemes (Wan Noraini, 2011; Azizah et al., 2012), in addition to the examination of the *modus operandi* of Islamic pawnbroker systems, containing recommendations for refining their service quality to ensure that the systems are consistent with *Shari'ah* rules and principles. With regards to regulation, Sanusi et al. (2004) inspected the *ar-rahn* operating procedures manual under the Bank Rakyat and Pawnbrokers Act of 1972 concerning guarding the rights of pawnshop customers in Malaysia. Moreover, Maamor and Md. Supian (2005) scrutinized the issues and challenges faced by *ar-rahn* scheme operators due to the amendments made to the Pawnbrokers Act of 1972.

Over the last 2 decades, the founding and development of *ar-rahn* facilities have resulted in displacing conventional pawnshops. For example, Amin et al. (2007) identified five factors that regulate the choice and adoption of *ar-rahn* among customers. They found that the *Shari'ah* view, the pledged asset, and customer service are meaningfully related to patronizing *ar-rahn*, whereas the pricing and locality of *ar-rahn* institutions are unimportantly related to *ar-rahn* adoption. Apart from these factors, in an empirical study, Abdul Razak (2011) found that *ar-rahn* financing is desirable to society because of the security of the collateral being assured, transparency within the pawning procedure, and image of the *ar-rahn* institution as associated with the conventional pawnshop.

In her empirical analysis, Abdul Razak (2011) demonstrated that 70% of the customers of *ar-rahn* agreed with the positive role of financing in improving their socioeconomic well-being, while more than 80% of the conventional pawnshop respondents disagreed with the statement. Patently, those who disagreed with the statement argued that pawning would only help them to be better off financially on a provisional basis or in emergency circumstances, but not for the long-term enhancement.

## 3. Research Framework, Hypothesis Development, and Empirical Methodology

The conceptual research framework for this research is formulated according to a financial inclusion modeling in line with the literature presented in the previous section. In this study, customer adoption of *ar-rahn* is used as a mediating variable and similarly observed as the consequences of being financially included, which will impact individual as well as societal well-being. Therefore, the financial inclusion variable is exogenous, whereas the customer adoption of *ar-rahn* is mutually an exogenous and endogenous variable in the structural model. Consequently, individual and societal well-being are used as endogenous variables within the structural model.

The research framework in this paper undertakes a belief that financial inclusion can be improved, in particular for poor people through institutions that do not necessitate "credit checks" and have "lower-cost loan." This paper, hence, assumes that *ar-rahn* can be one such solution and assumes that *ar-rahn* adoption can be determined by factors such as "religious obligation," "pricing," "collateral," "locality," "customer service," "transparency," and "security." The research framework in this study assumes that as a result of adoption *ar-rahn*, "individual well-being" will be improved through "improved standards of living" through "financed economic activities." Furthermore, "societal well-being" will also be achieved through "reduced poverty," "reduced inequality," and "reduced unemployment" through productive use of *ar-rahn* facilitated financing.

In line with the described conceptual research framework, the following hypotheses were developed:

*$H_1$: Financial inclusion positively affects individual well-being.*

*$H_2$: Financial inclusion positively affects societal well-being.*

*$H_3$: Financial inclusion positively affects ar-rahn adoption.*

*$H_4$: Ar-rahn adoption positively affects individual well-being.*

*$H_5$: Ar-rahn adoption positively affects societal well-being.*

*$H_6$: Financial inclusion indirectly, however, positively affects individual well-being through ar-rahn adoption.*

*$H_7$: Financial inclusion indirectly, however, positively affects societal well-being through ar-rahn adoption.*

*$H_8$: The effect of ar-rahn adoption on individual well-being is stronger when the loan is used for production purposes.*

*$H_9$: The effect of ar-rahn adoption on societal well-being is stronger when the loan is used for production purposes.*

This evaluative study, hence, aims to contribute to the scarcity of literature on *ar-rahn* by utilizing financial inclusion as a frame through which the economic well-being of individuals is examined.

To test the hypothesis, this research utilizes quantitative data collection based on purposive sampling through questionnaire surveys distributed to the customers of *ar-rahn* institutions throughout Malaysia. Two questionnaire surveys were disseminated in 2010 and 2016 to capture the nature of and change in customer profiles between these years. In 2010, 311 of 364 sampled customers responded to the questionnaire, whereas in the 2016 survey, 300 questionnaires were distributed to the *ar-rahn* customers, and 294 are used in the empirical analysis. In terms of geographical distribution, both the questionnaire surveys were conducted in Northern, Central, Southern, East Coast, and East Malaysia.

The comparison of economic well-being through financial inclusion by means of expansion of Islamic pawnbroking over the years from 2010 to 2016 is significant due to the fact that the Islamic economics movement emerged to empower Muslim individuals. Several instruments and institutions are considered instrumental in such an empowering process, including and beyond Islamic banking. Despite the promise, Islamic banking has failed to reach the unbanked part of the population and contribute to their well-being. Therefore, examining the impact of nonbanking Islamic instruments and institutions is considered important. *Ar-rahn*, being such an instrument, is used in everyday life by everyday people to get along with the economic and financial challenges of life by abiding by Islamic norms. While analyses of the 2010 and 2016 surveys are presented individually, they are compared to shed light on the impact of *ar-rahn* on individual well-being through the years. Between 2010 and 2016, we witnessed the expansion of *ar-rahn* activities, increased client numbers, and enhanced regulation of their operation. Hence, capturing the dynamics of the change over that 6-year period has provided valuable insight for future developments concerning *ar-rahn*. For example, in addition to demonstrating the importance of anthropology of financing, the analysis demonstrates the flexibility of nonbanking financial institutions to reach out to everyday people in helping them in their everyday economic challenges whereby contributing to their economic well-being. Thus, micro-level-based financial inclusion is assumed to enhancing the well-being of the involved individuals without creating sustained indebtedness.

The survey questionnaire consists of four parts. The first part of the questionnaire dealt with the demographic information of the respondents. The remaining parts of the questionnaire dealt with the factors hindering financial inclusion and the role of the *ar-rahn* on both individual and societal well-being by using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The data were further exposed to data cleansing and tests of normality using skewness and kurtosis.

The instrument developed for financial inclusion was reversely defined by involuntary exclusion barriers by the World Bank (2008) and Kempson et al. (2000, 2004), such as “no credit check” (access exclusion) as well as the “lower cost of the loan” (price exclusion). Instead, the instrument for the determinants of *ar-rahn* adoption was adopted from Amin et al. (2007) with the addition of two variables from Abdul Razak (2011), namely security and transparency. Furthermore, the instrument for the impact of *ar-rahn* financing on individual and societal well-being was likewise adapted from Abdul Razak (2011). The individual well-being variable was measured by two items; “improving my standard of living” and “helped me to finance economic activity,” and societal well-being was measured by “reduced poverty,” “reduced income inequality,” and “reduced unemployment.” The scales were validated for construct validity and dimensionality using exploratory factor analysis (EFA) and reliability using Cronbach’s alpha coefficient. In the next step, the scales were inveterate using confirmatory factor analysis (CFA), specifically by assessing the model fit, construct reliability, and convergent and discriminant validity of the constructs.

To test the developed hypotheses, SEM with a maximum probability estimation is employed. SEM technique is a second-generation technique widely applied in modern studies to overcome the limitations of first-generation techniques. In addition, SEM not only provides an assessment of the model fit in terms of the one-dimensionality, reliability, and validity of each construct tested but further allows for the overall model, which includes the direct and indirect relationship and individual parameter estimate, to be tested simultaneously (Garson, 2012). This makes SEM a fundamentally useful method for the empirical analysis in this study. Moreover, since SEM works with minimum measurement errors as it is reduced by using CFA and provides a better model visualization (Garson, 2012), using SEM has been an efficient solution for the empirical process in this study.

## 4. **Findings and Discussion**

### 4.1 Descriptive findings

#### 4.1.1 *Demographic dynamics*

Table 1 illustrates the demographics of *ar-rahn* customers as respondents for the years 2010 and 2016, which shows that financial inclusion has had an impact on demographic changes in *ar-rahn* customers in terms of use and client base. In 2010, many of the respondents were from the East Coast (71.8%), while there were even fewer from the Central region (14.9%) and none from the Northern region. In contrast, in 2016, many of the respondents came from the Central region (43.5%), while 30.3% and 19.4% of the respondents were from the East Coast and Northern regions, respectively. Until that time, *ar-rahn* financing was popular, as it was utilized on the East Coast, particularly by small entrepreneurs and low-income groups. There is currently a trend for Malaysians (especially from Kuala Lumpur) buying gold bars and jewelry to cash in on the rising price of the commodity either in *ar-rahn* institutions or banks. This is as a result of the low confidence in the currencies on the world market and future economic stability, particularly after the currency and financial crisis of 1997–98, which saw the dumping of Asian currencies, which produced rapid currency devaluation (Abdul Razak et al., 2016).

| Customer characteristic | 2010 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Frequency | Percentage | Mean | Frequency | Percentage | Mean |
| *Region:* | | | | | | |
| Northern | - | - | | 57 | 19.4 | |
| Central | 27 | 14.9 | | 128 | 43.5 | |
| Southern | 24 | 13.3 | | 13 | 4.4 | |
| East Coast | 130 | 71.8 | | 89 | 30.3 | |
| East Malaysia | - | - | | 7 | 2.4 | |
| *Gender:* | | | | | | |
| Male | 71 | 39.2 | | 136 | 46.3 | |
| Female | 110 | 60.8 | | 158 | 53.7 | |
| *Age (year):* | | | | | | |
| 20–29 | 4 | 2.2 | 47.98 | - | - | 47.19 |
| 30–39 | 36 | 19.9 | | 76 | 25.9 | |
| 40–49 | 62 | 34.3 | | 99 | 33.7 | |
| 50–59 | 51 | 28.2 | | 83 | 28.2 | |
| 60–69 | 28 | 15.5 | | 36 | 12.2 | |
| *Marital status:* | | | | | | |
| Single | 25 | 13.8 | | 49 | 16.7 | |
| Married | 146 | 80.7 | | 207 | 70.4 | |
| Widow/Widower | 10 | 5.5 | | 38 | 12.9 | |
| *Number of dependents:* | | | | | | |
| 0–2 | 25 | 13.8 | 4.46 | 123 | 41.8 | 2.82 |
| 3–5 | 108 | 59.7 | | 164 | 55.8 | |
| 6–8 | 43 | 23.8 | | 7 | 2.4 | |
| 9–11 | 5 | 2.8 | | - | - | |
| *Education:* | | | | | | |
| No formal education | 6 | 3.3 | | 30 | 10.2 | |
| Primary school | 26 | 14.4 | | 8 | 2.7 | |
| Secondary school | 90 | 49.7 | | 102 | 34.7 | |
| Certificate/ Diploma | 28 | 15.5 | | 30 | 10.2 | |
| Bachelor's degree | 26 | 14.4 | | 113 | 38.4 | |
| Masters/ PhD | 5 | 2.8 | | 11 | 3.7 | |
| *Working sector:* | | | | | | |
| Government | 59 | 19.0 | | 78 | 26.5 | |
| Private | 73 | 23.5 | | 58 | 19.7 | |
| Self-employed | 108 | 34.7 | | 134 | 45.6 | |
| Housewife | 52 | 16.7 | | 13 | 4.4 | |
| Unemployed | 10 | 3.2 | | 3 | 1.0 | |
| Other | 9 | 2.9 | | 8 | 2.7 | |

**Table 1: Changes in the characteristics of *ar-rahn* customers**

With regards to gender, in 2010, women dominated the number of respondents with 60.8%, whereas in 2016, respondents were closely divided between women (54%) and men (46%). Traditionally gold is synonymous with females as compared to males, and they tend to buy and hold gold as jewelry, savings, or investments, as gold seems to be a fairly liquid asset (Abdul Razak, 2011). Behavioral economists reveal that women tend to pawn sentimental items (such as gold wedding rings) to inspire themselves to repay the loan (Skiba and Carter, 2012).

As far as the significance of the age of the respondents is concerned, *ar-rahn* institutions were patronized by more than 80% of middle-age and older-age groups, which are between the ages of 30 years old and 59 years old (87.8%) in both age groups. This should be due to their need for an instant cash loan to bridge income gaps while making a living. It is further clear from both years that among the older people, there is a small number who seem to use *ar-rahn* as a source of borrowing.

In 2010, approximately 80% of the respondents of *ar-rahn* users were married, with 59.7% of them having a larger number of family members that ranged from 3 to 5 dependents. Even though the percentage of married respondents decreased to 70.4%, and the number of respondents with three to five dependents was at 55.8% in 2016, *ar-rahn* financing remained highly influenced by married respondents with a large number of dependents as compared to single persons and widows. As a whole, the larger the family, the higher the expenses they had to cover to make ends meet, probably serving as their reason for borrowing from *ar-rahn* institutions.

The results for 2010 show that *ar-rahn* institutions were patronized by less-educated customers (67.4%), but by 2016, the trend had changed whereby respondents were closely divided between well-educated (52.3%) and less-educated (47.7%). It appears that with the offering of *ar-rahn* schemes by the banks, the image of the pawnshop essentially improved and attracted the well-educated groups to deal with the institutions.

As shown in Table 1, in 2016, with regards to the sectoral distribution of the participants, approximately 46% of the respondents were self-employed (businessman, farmer, mechanic, shopkeeper, etc.), followed by 26.5% and 19.7% who worked for the government (teacher, army, policeman, fireman, lecturer, etc.) and the private sector (bank officer, clerk, supervisor, engineer, etc.); the remaining 8.1% were housewives, students, the unemployed, and pensioners. As stated by the Financial Conduct Authority of Malaysia (2014), the self-employed, or those who have an irregular income, are connected with greater levels of income volatility, and this can be considered a reason for the reduced resilience to income shocks. This may suggest some degree of exclusion from mainstream finance, which could be limiting the credit options available to this group. Therefore, nonbank forms of lending such as *ar-rahn* are frequently favored because they are often seen as more flexible, convenient, and accessible. In comparison, the analysis of the 2010 data displays fewer self-employed respondents (34.7%) and those working in the government (19%), as well as more respondents who work in the private sector (23.5%). The number of people who were housewives fell drastically from 16.7% in the 2010 survey to 4.4% in 2016. In Malaysia, for instance, the female population improved from 10.9 million in 2000 to 15.1 million in 2015 (Department of Statistics Malaysia, 2000, 2015). Hence, inevitably, women have become one of the main sources for the contributing economy as a whole. Seemingly, with the higher cost of living faced by society currently, housewives tend to get a job or start small businesses to become better off financially and move them away from being dependent on their husbands. In the state of Kelantan in Malaysia, for example, women are actively involved in small businesses and enterprises, especially at the Siti Khadijah's market. The majority of the female micro-entrepreneurs buy gold to use when they require instant cash to raise capital or expand their businesses.

| | 2010 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Frequency | Percentage | Mean | Frequency | Percentage | Mean |
| *Total income:* | | | | | | |
| RM0–RM2000 | 50 | 27.6 | RM4083.23 | 72 | 24.5 | RM4151.36 |
| RM2001–RM4000 | 30 | 16.6 | | 74 | 25.2 | |
| RM4001–RM6000 | 54 | 29.8 | | 94 | 32.0 | |
| RM6001–RM8000 | 47 | 26.0 | | 42 | 14.3 | |
| RM8001–RM10,000 | - | - | | 10 | 3.4 | |
| RM10,001–RM12,000 | - | - | | 2 | 0.7 | |
| *Total expenditure:* | | | | | | |
| RM0–RM2000 | 43 | 23.8 | RM3983.81 | 77 | 26.2 | RM3731.12 |
| RM2001–RM4000 | 43 | 23.8 | | 91 | 31.0 | |
| RM4001–RM6000 | 63 | 34.8 | | 101 | 34.4 | |
| RM6001–RM8000 | 27 | 14.9 | | 23 | 7.8 | |
| RM8001–RM10,000 | 5 | 2.8 | | 2 | 0.7 | |
| **Total saving:* | | | | | | |
| No saving | | | | 156 | 53.1 | RM443.03 |
| RM1–RM1000 | | | | 112 | 38.1 | |
| RM1001–RM2000 | | | | 16 | 5.4 | |
| RM2001–RM3000 | | | | 7 | 2.4 | |
| RM3001–RM4000 | | | | 3 | 1.0 | |
| **Net income:* | | | | | | |
| Less than RM0 | | | | 157 | 53.4 | |
| RM1–RM500 | | | | 53 | 18.0 | |
| RM501–RM1000 | | | | 50 | 17.0 | |
| RM1001–RM2000 | | | | 23 | 7.8 | |
| RM2001–RM3000 | | | | 7 | 2.4 | |
| More than RM3001 | | | | 4 | 1.4 | |
| *Income sufficient:* | | | | | | |
| Yes | 92 | 50.8 | | 127 | 43.2 | |
| No | 89 | 49.2 | | 167 | 56.8 | |
| *Reasons for insufficient income:* | | | | | | |
| High cost of living | 73/181 | 40.33 | | 146/29 | 49.66 | |
| Children start schooling | 32/181 | 17.68 | | 4 | 20.75 | |
| Tied with debt | 21/181 | 11.60 | | 61/294 | 19.73 | |
| Unstable income | 20/181 | 11.05 | | 58/294 | 16.33 | |
| | | | | 48/294 | | |

**Table 2: Changes in customer financial standing**

As depicted in Table 2, in 2010, the respondents' income ranged from RM0 to RM8000, with the total average household monthly income being RM4083.23. In 2016, the range of total monthly income of the respondents expanded to RM12,000, with the total average household income per month being RM4151.36. Both results reveal that the clients of *ar-rahn* consisted of not only lower-income and middle-income groups but higher-income groups as well; presumably, they are considered high risk granted their current economic condition, whereby mainstream financial institutions are severe in their loan approval. For total expenditure, in 2016, most respondents (34.4%) had an expenditure of RM4001–RM6000, and this was a very slight decrease from 2010 (34.8%). As evidenced from Table 2, those spending less than RM2000 and between RM2001 and RM4000 saw an increase of 23.8%–26.2% and 23.8%–31% respectively from 2010–2016, seemingly due to the increase in daily expenses, because of the government forced goods and services tax (GST) running at 6% since April 1, 2015. In terms of savings in 2016, half of the respondents did not have savings, and closely 40% had savings of RM1 and RM1000. As can be identified, those with savings above RM1000 accounted for only 8.8%, seemingly from the savings of those higher-income groups with a total monthly household income of more than RM6000. Ismail (2015) found that the GST forced a burden on low-income households with a lack of savings because they spend more on essential items, namely food and utilities. A tax on food consumption, among other things, will further limit the competence to save for many of the lower-income households.

Table 2 further displays the result of respondents' net income in 2016 and 2010: more than half of the respondents experienced a deficit net income, while 35% of them managed to have a surplus in net income up to RM1000. The residual 3.8% of the respondents, apparently from the higher-income groups, experienced a surplus of net income, which was above RM2001. In 2016, of 294 respondents, roughly 57% claimed that their income was inadequate for several reasons, such as; higher costs of living (49.66%) and children's school expenses (20.75%). This was an increase from 2010, where only approximately 50% of the respondents stated that they did not earn sufficient income. In 2016, 49.66% of respondents agreed that the high cost of living contributed meaningfully to them not having a sufficient income. This was similar to 2010, where the majority of the respondents (40.33%), although a smaller percentage of the respondents, further reported the high cost of living as the main reason for their insufficient income. Seemingly, the increase in the cost of living in 2016 was due to the execution of GST by the government. Hence, *ar-rahn* financing is seen as a vital tool that helps people make ends meet because their income sources are often insufficient to cover their expenses.

4.1.2 *Changes in preferable sources of instant cash loans*

As depicted in Table 3, respondents provided different levels of importance to sources for needing instant cash; however, the trend for choosing the sources of small loans changed between the years 2010 and 2016. As the findings indicate, in 2016, borrowing from relatives was the most preferable source of procuring instant cash with a mean of 2.54, followed by pawnshops with a mean of 2.62. This is in contrast to the finding for 2010, where pawnshops (2.13) were the most preferable source of instant cash as compared to relatives (2.31).

| **Sources** | **Mean** | **Rank** | **Mean** | **Rank** |
|---|---|---|---|---|
| | 2010 | | **2016** | |
| **Pawnshop** | 2.13 | 1 | 2.62 | **2** |
| **Relative** | 2.31 | 2 | 2.54 | **1** |
| **Friend** | 3.12 | 3 | 2.97 | **3** |
| **Bank** | 3.64 | 4 | 5.34 | **6** |
| **Cash advance from credit card** | 4.39 | 5 | 3.74 | **4** |
| **Cooperative company** | 4.92 | 6 | 4.39 | **5** |
| **Moneylender** | 5.53 | 7 | 5.61 | **7** |
| **Others** | **-** | **-** | **7.99** | **8** |

*Note*: Mean values—Scoring: 1 = The most preferable; 8 = The least preferable

**Table 3: Preferable sources of instant cash loans**

Although there is an alteration in terms of preferences, this result displays that people tend to obtain instant cash loans by borrowing from informal financing or nonbank financing institutions instead of formal institutions as a result of the easy access in terms of procedures and documentation. It should be noted that since both sets of respondents from the respective years were purposively selected from those dealing with *ar-rahn* financing, the results may lead to a potential bias. Nonetheless, the results were seen to lean more toward informal financing.

4.1.3 *Changes in the customer intention for using ar-rahn*

Based on the mean ranks of each year exposed in Table 4, it can be concluded that the main factor, namely "interest-free loan," is regarded as the most important factor for respondents in patronizing *ar-rahn*. In 2010, pragmatic factors such as "speed in loan approval" and "lower safekeeping fee" were considered important in customer intention to use *ar-rahn*. Astonishingly, these two factors were ranked as less significant in 2016, whereby the criteria of *ar-rahn* in accepting collateral such as gold coin and gold bar were perceived as important factors in using *ar-rahn*, apart from the underlying principle of the *ar-rahn*. Seemingly, the reason for this change is due to the acceptance of gold as an alternate currency, especially after the successful launching of the gold dinar in the state of Kelantan, Malaysia, on August 12, 2010 (Owolabi Yusuf et al., 2015). Since then, people have a habit of holding gold since cashing gold in *ar-rahn* is easy when they require instant cash.

| **Reason** | **Mean** | **Rank** | **Mean** | **Rank** |
|---|---|---|---|---|
| | 2010* | | **2016**** | |
| Interest-free loan | 1.91 | 1 | 20.94 | **1** |
| Speed in loan approval | 2.98 | 2 | 18.81 | **20** |
| Lower safekeeping fee | 3.06 | 3 | 18.84 | **19** |
| Acceptance of various collateral | 13.00 | 13 | - | |
| Location near home | 6.34 | 7 | 20.18 | **4** |
| Confidentiality | 8.02 | 8 | 19.69 | **8** |
| Convenient (parking space) | 6.14 | 5 | 18.50 | **28** |
| Knowledgeable staff | 8.88 | 10 | 19.02 | **13** |
| Possibility of redemption is high | 8.09 | 9 | 18.66 | **22** |
| Security of collateral is guaranteed | 6.26 | 6 | 18.71 | **19** |
| Transparency | 5.94 | 4 | 18.63 | **24** |
| Image | 10.71 | 12 | 19.35 | **11** |
| Loyalty | 9.67 | 11 | 19.72 | **7** |
| Lending based on Islamic principles | | | 20.17 | **5** |
| Free from uncertainties | | | 19.90 | **6** |
| Fewer procedures | | | 18.51 | **26** |
| Simple documentation | | | 18.93 | **17** |
| Loan margin is high | | | 18.14 | **31** |
| Loan maximum limit is high | | | 18.40 | **30** |
| Loan term is flexible | | | 17.77 | **35** |
| Loan repayment can be paid by installment | | | 18.14 | **32** |
| Brief explanation of pawn procedures | | | 17.92 | **34** |
| Modern technology | | | 17.49 | **36** |
| Information in pawning receipt is detailed | | | 18.92 | **18** |
| Notice for redemption and auction | | | 18.95 | **16** |
| Refinancing is allowed | | | 18.00 | **33** |
| Excess of collateral sales will be returned | | | 18.57 | **25** |
| Probability of getting compensation | | | 18.51 | **27** |
| Accepting collateral such as gold | | | 19.00 | **14** |
| Accepting collateral such as gold bar | | | 20.72 | **3** |
| Accepting collateral such as gold coin | | | 20.85 | **2** |
| Location near a business center | | | 19.51 | **9** |

| | | |
|---|---|---|
| Location near public transport | 18.65 | **23** |
| Location near workplace | 18.76 | **21** |
| Conducive office/counter | 18.46 | **29** |
| Excellent customer service | 18.99 | **15** |
| Convenient hours | 19.25 | **12** |
| Create less embarrassment | **19.44** | **10** |

*Note*: * Mean values—Scoring: 1 = The most important; 7 = The least important (N= 181; Chi-Square= 1468.405; df= 12; Sig. =0.000); **Mean values—Scoring: 1 = Strongly disagree; 5 = Strongly agree (N = 294; Chi-Square = 111.994; df = 36; Sig. = 0.000)

**Table 4: Factors concerning customer intention to use *ar-rahn***

In investigating the impact of *ar-rahn* loans on the socioeconomy of society, the use of lending is split into two categories, namely, consumption and production purposes. The uses that fell under consumption purposes were "medical expenses," "utility bills," "household expenses," "repayment on another loan," "car expenses for personal use," "festival expenses," "refinancing household appliances," "treat yourself," as well as "buy a gift." As for the remaining purposes, the following were listed: "buying property," "education expenses," "start-up business," "extend businesses," and "car expenses for businesses," which were categorized as production purposes. As the findings in Table 5 depict, the pattern in the use of credit obtained from *ar-rahn* is similar in 2010 and in 2016, where customers tend to use the money for daily expenses. Nevertheless, it is important to note that more than 30% of the customers in both the data sets obtained loans through *ar-rahn* for productive purposes and income generation activities, such as education expenses and business start-up, including expanding business activities.

| | | 2010 | | 2016 | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Frequency | Percentage |
| Consumption | Medical bill | 10/181 | 5.52 | 26/294 | 8.84 |
| | Utility bill | 18/181 | 9.94 | 25/294 | 8.50 |
| | Daily expenses | 69/181 | 38.12 | 123/294 | 41.84 |
| | Other loan repayments | 61/181 | 33.70 | 23/294 | 7.82 |
| | Car expenses | 34/181 | 18.78 | 28/294 | 9.52 |
| | Festival | 13/181 | 7.18 | 24/294 | 8.16 |
| | Refinancing household appliance | 30/181 | 16.57 | - | - |
| | Treat yourself | 19/181 | 10.50 | 3/294 | 1.02 |
| Production | Buying property | 9/181 | 4.97 | 14/294 | 4.76 |
| | Education expenses | 70/181 | 38.67 | 110/294 | 37.41 |
| | Start-up business | 14/181 | 7.73 | 97/294 | 32.99 |
| | Expand business | 50/181 | 27.62 | 37/294 | 12.59 |
| | Car expenses | 8/181 | 4.42 | 11/294 | 3.74 |
| | Buying gold | - | - | 30/294 | 10.20 |

**Table 5: Purpose of pawning**

4.2. Hypothesis testing

Before discussing the testing of the hypotheses, the empirical process is detailed to develop the results. First, using the principal component analysis removal technique with Varimax rotation, EFA was engaged for each construct to confirm the dimensions. This helps verify the dimensions of financial inclusion, *ar-rahn* adoption, and individual and societal well-being with the intention of the underlying items for the extracted component structure of the variables to be verified. Hair et al. (2006) stated that the accepted threshold values of standardized factor loading are above 0.50, while Cronbach's alpha is recommended to be greater than 0.70 (Nunnally and Bernstein, 1994).

As evidenced by the estimates in Table 6, The Kaiser-Meyer-Olkin measure of the sampling adequacy index for the factor was 0.83, and Cronbach's alpha was above 0.70, which indicates the relevance of the data for the factor analysis. Table 6 similarly indicates that the factor loading through the principal components of the items ranged from 0.52 to 0.91, which is above the threshold of 0.50 as recommended by Hair et al. (2006).

| No. | | Description | Loadings | Construct | Cronbach's Alpha |
|---|---|---|---|---|---|
| 1 | FINEXC1 | No credit check | 0.84 | Financial inclusion | 0.70 |
| 2 | FINEXC5 | Lower cost of loan | 0.82 | | |
| 3 | RO1 | Lending based on Islamic principle | 0.73 | Religious obligation | 0.70 |
| 4 | RO2 | Interest-free loan | 0.52 | | |
| 5 | PRICE3 | Lower safekeeping fee | 0.66 | Pricing | 0.79 |
| 6 | PRICE4 | High loan margin | 0.81 | | |
| 7 | PLEDGE2 | Accepting gold bar | 0.80 | Collateral | 0.91 |
| 8 | PLEDGE3 | Accepting gold dinar, gold coin | 0.80 | | |
| 9 | LOCALITY3 | Location near residential area | 0.75 | Locality | 0.88 |
| 10 | LOCALITY4 | Location near workplace | 0.72 | | |
| 11 | SERVICES3 | Simple documentation | 0.69 | Services | 0.91 |
| 12 | SERVICES4 | Less procedures | 0.62 | | |
| 13 | TRANS1 | Transparent in pawning procedure | 0.64 | Transparency | 0.83 |
| 14 | TRANS2 | Information in pawning ticket is detailed | 0.68 | | |
| 15 | SECURITY2 | Security of collateral is guaranteed | 0.78 | Security | 0.93 |
| 16 | SECURITY3 | Notice will be given as reminder | 0.77 | | |
| 17 | IW13 | Improving my standard of living | 0.83 | Individual well-being | 0.88 |
| 18 | IW14 | Helped me to finance economic activity | 0.82 | | |
| 19 | SW5 | Reduced poverty | 0.88 | Societal well-being | 0.94 |
| 20 | SW6 | Reduced income inequality | 0.92 | | |
| 21 | SW7 | Reduced unemployment | 0.91 | | |

**Table 6: Factor loading and Cronbach's alpha**

Even though they were statistically significant under EFA, the items may be subject to modifications. In ensuring that the data are free from outliers and non-normality, a CFA was conducted on the 10 latent variables using AMOS 22.0, adopting a maximum likelihood estimation (Adewale, 2014). The essence of this is to assess how closely the items are loaded in the eight latent constructs. Model fit was assessed by using the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the Chi-square/ degrees of freedom ratio (Kline, 1998). CFI compares the hypothesized model with the independent model in which nothing is related (Byrne, 2001). A CFI of 0.95 or above specifies a good fit. The RMSEA estimates how well the model fits with the estimated population covariance matrix (Byrne, 2001). RMSEA should be well under 0.10 and preferably under 0.08 (Tabachnick & Fidell, 2007). A good fitting model is presumed to be when the Chi-square is nonsignificant. Nonetheless, the Chi-square is extremely sensitive to sample size. To minimize this problem, the Chi-square is divided by the degrees of freedom with a Chi-square/*df* ratio of 3 or less, indicating acceptable fit (Kline, 1998).

The estimates in Table 7 demonstrate that the model fits the data well (CFI = 0.963; RMSEA = 0.061; $\chi^2 = 274.687$, $df = 144$, $\chi^2/df = 1.908$).

| | Values | Recommended values |
|---|---|---|
| Chi-Square ($\chi^2$) | 274.687 | |
| df | 144 | |
| GFI | 0.907 | ≥ 0.90 |
| AGFI | 0.850 | ≥ 0.80 |
| NNFI (TLI) | 0.947 | ≥ 0.90 |
| CFI | 0.963 | ≥ 0.90 |
| RMSEA | 0.061 | ≤ 0.08 |
| NORMEDCHISQ ($\chi^2$/df) | 1.908 | ≤ 3.00 |
| p-value | 0.000 | |

**Table 7: Fit indices**

Table 8 summarizes the results of internal reliability and convergent validity for the constructs. Convergent validity is the degree to which multiple attempts are made to measure the same concept are in agreement, which is measured based on factor loading, composite reliability, in addition to the average variance extracted (Fornell & Larcker, 1981). As can be seen, the factor loading for all the items in this study surpassed the suggested level of 0.6 (Chin et al., 1997). Composite reliability (CR), which depicts the degree to which the construct indicators indicate the latent construct, ranged from 0.7 to 0.94, exceeding the recommended level of 0.7, as recommended by Gefen et al. (2000). The values for average variance extracted (AVE), which reflected the overall amount of variance in the indicators accounted for by the latent construct, were in the range of 0.54 and 0.87, exceeding the recommended level of 0.5 as suggested by Hair et al. (2006). Hence, the scales exhibit acceptable convergent validity.

| Construct | Item | Loading | Convergent validity | |
|---|---|---|---|---|
| | | | AVE | CR |
| Financial inclusion | FINEXC1 | 0.65 | 0.54 | 0.70 |
| | FINEXC5 | 0.81 | | |
| Religious obligation | RO1 | 0.88 | 0.57 | 0.72 |
| | RO2 | 0.61 | | |
| Pricing | PRICE3 | 0.68 | 0.68 | 0.81 |
| | PRICE4 | 0.95 | | |
| Collateral | PLEDGE2 | 0.93 | 0.84 | 0.91 |
| | PLEDGE3 | 0.90 | | |
| Locality | LOCALITY3 | 0.92 | 0.79 | 0.88 |
| | LOCALITY4 | 0.86 | | |
| Services | SERVICES3 | 0.94 | 0.83 | 0.91 |
| | SERVICES4 | 0.88 | | |
| Transparency | TRANS1 | 0.95 | 0.73 | 0.84 |
| | TRANS2 | 0.75 | | |
| Security | SECURITY2 | 0.95 | 0.87 | 0.93 |
| | SECURITY3 | 0.91 | | |
| Individual well-being | IW13 | 0.92 | 0.79 | 0.88 |
| | IW14 | 0.86 | | |
| Societal well-being | SW5 | 0.87 | 0.85 | 0.94 |
| | SW6 | 0.96 | | |
| | SW7 | 0.93 | | |

**Table 8: Results of CFA for the first-order factor model**

In the next step, the discriminant validity, which is the extent to which a measure is not a reflection of some other variable, was evaluated. Discriminant validity can be established by noting low correlations between all the measures of interest and the measure of other constructs. Furthermore, according to Fornell and Larcker (1981), when the square root of the AVE is greater than its correlations with all the other constructs, discriminant validity is established. Based on Table 9, the discriminant validity for the first-order factor model was established. As a conclusion of the above discussion, the measurement model tailored the data well.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Individual** Well-being | **0.891** | | | | | | | | | |
| **Religious** | 0.231 | **0.895** | | | | | | | | |
| **Pricing** | 0.292 | 0.312 | **0.939** | | | | | | | |
| **Collateral** | 0.359 | 0.290 | 0.360 | **0.914** | | | | | | |
| **Locality** | 0.311 | 0.286 | 0.379 | 0.761 | **0.888** | | | | | |
| **Services** | 0.408 | 0.333 | 0.320 | 0.609 | 0.618 | **0.912** | | | | |
| **Transparency** | 0.319 | 0.275 | 0.318 | 0.468 | 0.476 | 0.572 | **0.865** | | | |
| **Security** | 0.352 | 0.268 | 0.412 | 0.515 | 0.558 | 0.520 | 0.320 | **0.933** | | |
| **Financial Inclusion** | 0.201 | 0.610 | 0.456 | 0.262 | 0.326 | 0.290 | 0.202 | 0.339 | **0.907** | |
| **Societal** Well-being | 0.459 | 0.190 | 0.265 | 0.323 | 0.340 | 0.299 | 0.302 | 0.217 | 0.228 | **0.917** |

**Table 9: Discriminant validity of constructs (First-order model)**

The construct of *ar-rahn* adoption was considered a second-order construct. In the questionnaire, the subconstruct of *ar-rahn* adoption was measured by the dimension of locality (two items), security (two items), customer service (two items), pricing (two items), pledged assets (two items), *shariah* (two items), and transparency (two items). Hence, the results of CFA for the second-order factor model results are provided in Table 10.

| Construct | Item | Loading | Convergent validity | |
|---|---|---|---|---|
| | | | AVE | CR |
| *Ar-rahn* Adoption | Religious | 0.78 | 0.56 | 0.90 |
| | Pricing | 0.75 | | |
| | Collateral | 0.77 | | |
| | Locality | 0.81 | | |
| | Services | 0.76 | | |
| | Transparency | 0.67 | | |
| | Security | 0.66 | | |
| Financial Inclusion | FINEXC1 | 0.67 | 0.54 | 0.70 |
| | FINEXC5 | 0.79 | | |
| Individual Well-Being | IW13 | 0.88 | 0.80 | 0.90 |
| | IW14 | 0.91 | | |
| Society Well-Being | SW5 | 0.87 | 0.84 | 0.94 |
| | SW6 | 0.96 | | |
| | SW7 | 0.93 | | |

**Table 10: Result of CFA for the second-order factor model**

Based on Table 10, the AVE is above 0.50, and CR is above 0.70. Table 11 further shows that the AVE is greater than its correlations with all the other constructs. In summary, the measure had satisfactory reliability, convergent validity, and discriminant validity.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| **Societal** Well-being | **0.917** | | | |
| **Financial Inclusion** | 0.226 | **0.913** | | |
| **Individual** Well-being | 0.459 | 0.190 | **0.891** | |
| **Adoption** | 0.393 | 0.411 | 0.474 | **0.748** |

**Table 11: Discriminant validity of constructs**

In this study, the relationship between financial exclusion and individual and societal well-being is analyzed by SEM following Bryne (2001). As identified, SEM is a statistical model that pursues to clarify the relationships among variables. These equations portray all the relationships between unobservable or latent variables (Hair et al., 2006). For this study, the estimated SEM model shown in Figure 1 consists of four latent variables: (1) financial inclusion, (2) *ar-rahn* adoption, (3) individual well-being, and (4) societal well-being. This study analyses the effect of financial inclusion on the well-being of individuals and society. Furthermore, *ar-rahn* adoption as a latent construct is used as a mediating variable, in which case it is determined by financial inclusion and is further viewed as the cause of positive changes in the well-being of society. Therefore, it is both exogenous and endogenous in the structural model.

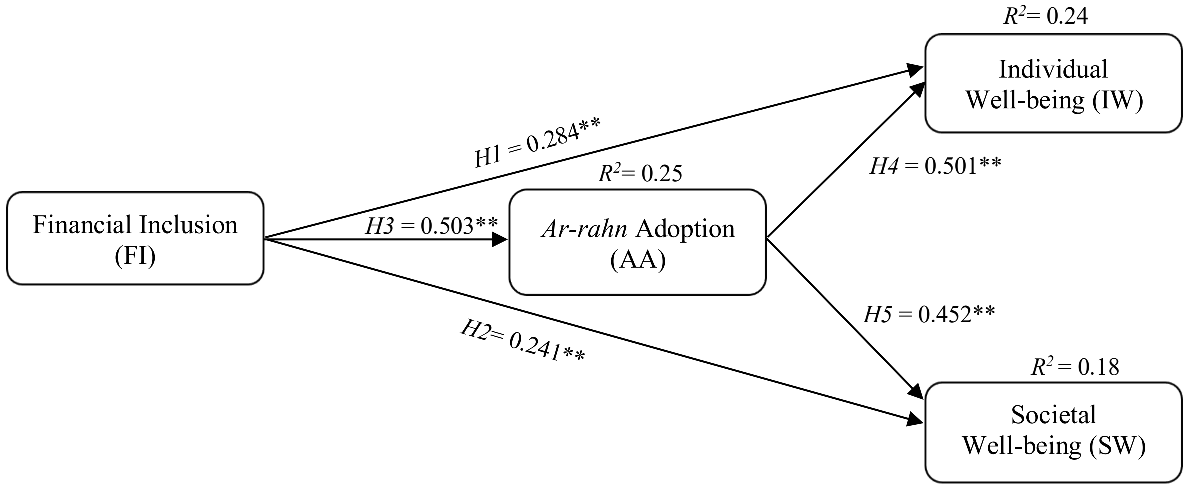
4.1.4 *Analysis of direct effects*

Table 12 and Figure 1 illustrate the summary results of the planned structural model. The test of the overall model fit yielded a Chi-square of 443.258 with 177 degrees of freedom and a *p*-value equal to 0.000. All the fit indices are above the suggested values except for GFI, which is lower than 0.90 but still acceptable (AGFI = 0.863; CFI = 0.925; TLI = 0.912; RMSEA = 0.078; $\chi^2$/df = 2.504). The $R^2$ value for the relationship between financial inclusion and *ar-rahn* adoption is 0.253, which specifies that 25% of the variance in *ar-rahn* adoption can be explained by financial inclusion. On the other hand, 24% and 18% of the variance in individual and societal well-being, respectively, can be explained by *ar-rahn* adoption.

| Path | Expected direction | Standardized estimate | t-value | p-value | Result |
|---|---|---|---|---|---|
| *H1*: financial inclusion (FI)→individual well-being (IW) | + | 0.284 | 3.037 | 0.002 | Supported |
| *H2*: FI→SW | + | 0.241 | 2.799 | 0.016 | Supported |
| *H3*: FI→AA | + | 0.503 | 5.042 | 0.001 | Supported |
| *H4*: AA →IW | + | 0.501 | 5.124 | 0.001 | Supported |
| *H5*: AA→ SW | + | 0.452 | 4.888 | 0.001 | Supported |

**Table 12: Summary of the structural model**

Two of the hypotheses, $H_1$ and $H_2$, expected that financial inclusion has a direct effect on individual and societal well-being. The influence of financial inclusion on individual ($\beta$ = 0.284, $p < 0.05$) and societal well-being is significant ($\beta$ = 0.241, $p < 0.05$). The third hypothesis, $H_3$, projected that financial inclusion has a positive influence on customer adoption of *ar-rahn*. Based on Table 12, the standardized parameter estimates between financial inclusion and customer adoption of *ar-rahn* are positive and statistically significant ($\beta$ = 0.503, $p < 0.01$), representing that Hypothesis 3 is reinforced. The fourth hypothesis, $H_4$, expected that *ar-rahn* adoption would positively influence individual well-being. The standardized parameter estimates between *ar-rahn* adoption and individual well-being are positive and statistically significant ($\beta$ = 0.501, $p < 0.01$), indicating that $H_4$ is supported. The fifth hypothesis, $H_5$, expected that *ar-rahn* adoption would positively influence societal well-being ($\beta = 0.452$, $p < 0.01$) is likewise supported.




*Note:* ** $p < 0.05$

**Figure 1: Test results for the proposed structural model**

4.1.5 *Analysis of the mediating effects*

In addition to the direct effects, the mediating effect of *ar-rahn* adoption in improving both individual and societal well-being was scrutinized using the bootstrapping method. In determining the occurrence of the mediation, the estimated standardized indirect effect must not include zero (Preacher & Hayes, 2008). Based on Table 13, the results showed the insignificant direct relationship between FI and IW ($\beta_{\mathrm{FI} \rightarrow \mathrm{IW}} = -0.010$, $p > 0.05$), as well as societal well-being (SW) ($\beta_{\mathrm{FI} \rightarrow \mathrm{SW}} = -0.074$, $p > 0.05$). Henceforth, the results indicate that full mediation occurs in a relationship between FI in addition to individual and societal well-being through *ar-rahn* adoption that supports $H_6$ and $H_7$. These findings suggested that *ar-rahn* adoption fully mediates the effects of FI for both individual and societal well-being, which provides support for the basic formulation of the model.

| Path | Standardized estimate: Direct effect on mediator | Standardized estimate: Direct effect on IW and SW | Standardized estimate: Indirect effect | Conclusion |
|---|---|---|---|---|
| *H6*: FI → AA → IW | 0.503 | $-0.010^{ns}$ | 0.252** | Full mediation. H6 is supported. |
| *H7*: FI → AA → SW | 0.503 | $-0.074^{ns}$ | 0.227** | Full mediation. H7 is supported. |

*Note*: "**" $p < 0.05$; "ns" not significant

**Table 13: Summary of hypothesis testing related to mediating effects**

4.1.6 *Analysis of moderating effects*

The moderating effect of loan use in the relationship between *ar-rahn* adoption and both individual and societal well-being is inspected using a multi-group SEM analysis. Using the dichotomous variable, respondents were divided into those using the loan for consumption (0) and production purposes (1). To test the moderation-related hypotheses, the critical ratios for the differences in regression weights between *ar-rahn* adoption and the loan were used. From these critical ratios, *p*-values were calculated to determine the significance of the difference. The results in Table 14 specified that *ar-rahn* adoption significantly and positively affected IW for both consumption ($\beta$ = 0.430, p < 0.10) and production ($\beta$ = 1.038, p < 0.001) group respondents. Instead, *ar-rahn* adoption insignificantly affected societal well-being for both groups, which further shows that the effect of *ar-rahn* adoption on IW is stronger for those who use the loan for production purposes. Consequently, $H_8$ is supported, and $H_9$ is not supported.

| Paths | Consumption | | Production | | z-score | Results |
|---|---|---|---|---|---|---|
| | Std Est (t-value) | p-value | Std Est (t-value) | p-value | | |
| ***H8*: AA → IW** | 0.430* (1.839) | 0.066 | 1.038*** (5.243) | 0.000 | 1.982** | • Significantly different across groups<br>• Significantly stronger in production purpose. *H8* is supported |
| ***H9*: AA → SW** | 0.733 | 0.010 | 0.806 | 0.000 | 0.221$^{ns}$ | Not significant |

*Note*: *** p < 0.001; ** p < 0.05; * p < 0.10; ns not significant

**Table 14: Structural invariance tests for hypothesized paths**

## 5. Discussion and Conclusion

This study endeavored to investigate the significant role played by *ar-rahn* financing as a tool for FI for the well-being of society. Based on the profile of the customers that patronizes *ar-rahn* financing, there are changes in terms of the region, level of education, and income level between 2010 and 2016. This financing was desired not only by the less developed regions and those with lower-income levels but also by developed regions such as Kuala Lumpur and those with middle and higher incomes. The higher cost of living in Malaysia in recent years resulted in the decline in disposable income due to the government-imposed GST on most transactions in 2015. Consequently, due to their insufficient income, those individuals who have been affected would patronize *ar-rahn* financing to make ends meet.

As the results depict, price exclusion had high loadings (0.79) as associated with the access exclusion (0.67), which specified its relative importance as a reflective indicator of financial exclusion. Thus, the price exclusion factor seems to be an important factor causing financial exclusion, which implies that individuals would avoid using financial services if the financial services are too costly. This finding is congruent with Kempson et al.'s (2004) study.

Unlike the findings by Amin et al. (2007), the locality factor is the most significant determinant in reflecting customer adoption of *ar-rahn* with high factor loadings (0.81). The present study's finding is in line with that of Nik Azman et al. (2016), which suggested that with a small loan, customers will generally patronize the closest *ar-rahn* institution to reduce the transportation and waiting cost. The findings similarly reveal that customers opted for *ar-rahn* financing facility for religious reasons as the institutions observed *Shari'ah* principles in the *ar-rahn* contract, such as *qard al-hasan*, *al-wadiah yad dhammanah*, and *al-ujrah*. Finally, as an important *Shari'ah* compliance-related motivation, *ar-rahn* is opted due to being free from *riba* and *gharar* and promoting social justice (Abdul Razak, 2011). This study evidence that collateral assets are additionally important factors affecting *ar-rahn* adoption. Based on previous literature on *ar-rahn* (Abdul Razak, 2011; Bahari et al., 2015), there has been an issue regarding the non-diversification of collateral acceptance by *ar-rahn* providers, which diverted their interest to the use of the conventional pawnshop instead. Moreover, for the business to remain competitive and sustainable, most of the recognized *ar-rahn* institutions, such as Bank Islam Malaysia Berhad, Ar-Rahnu MAIDAM, and Ar-Rahn PKB, have expanded their acceptance of collateral so that it includes not only gold jewelry but also gold coins and gold bars.

The findings further evidence that "financing economic activity" is a key indicator of IW. It is also found that "reducing income inequality" and "reducing unemployment" is the major consequence that reflects societal well-being.

As hypothesized in this study, FI is predicted to improve the well-being of individuals and society. The result is consistent with the results of Burgess and Pande (2005) and Brune et al. (2011). The positive statistically significant results between FI and customer adoption of *ar-rahn* indicate that people, or the so-called "unbankable," who are excluded from the mainstream financial institutions will attain loans from nonbanking financial institutions such as *ar-rahn*. This result, hence, is consistent with Mohieldin et al. (2011), which also indicates that there is a significant potential role in Islamic microfinance, including *ar-rahn*, to support FI.

The statistical significance of individual and societal well-being in this study is an indication of the relationship between FI and individual and societal well-being through customer adoption of *ar-rahn*. These findings are consistent with Abdul Razak (2011), who indicated the positive impact of *ar-rahn* on individual and societal well-being. This study evidenced that the well-being of individuals is improved if the *ar-rahn* facility is used to finance production rather than consumption.

While this study is based on data generated in 2010 and 2016, we hope that conducting the same questionnaire next year from now will be a useful academic exercise to locate the potential changes that will have taken place in *ar-rahn* take up, which can shed further light on the behavior and motivation of the users and developing a further understanding of the institutional nature and development of *ar-rahn* offerings.

FI has become an important policy to achieve inclusive growth as part of SDGs by providing financial service access to all strata of society. Hence, policymakers and *ar-rahn* institutions should play a role in improving the outreach of *ar-rahn* services, as they also contribute to women's empowerment. However, expanding FI is not necessarily an indication of the improvement of individual nor societal well-being. Consequently, generating income and individual empowerment should be the target of any FI strategy. Lastly, the *ar-rahn* sector should also be taken into a regulatory environment to prevent any potential difficulties to which the financial sector is believed to be prone.

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