DO ISLAMIC BANKING FINANCIAL INSTRUMENTS ACHIEVE EQUITABLE INCOME AND WEALTH DISTRIBUTION?¹

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¹ Article received: Jul. 2021; article accepted: Nov. 2021
الملخص

تبحث الدراسة بشكل جملي فيما إذا كانت الممارسات المالية لعقود التمويل المبنية على أساس المرة بمعيار المشاركة والمضاربة والاستثمار، والمبيع بكفاءة، والإتاحة، وغيرها من العقود المستخدمة في الصناعات المالية الإسلامية المتمكنة، تحق القيود BOUNDS ونموذج التوزيع ARDL للتحقق من العلاقة بين عقود التمويل المبنية على الشريعة الإسلامية مثا مؤشر عمل جيني المالي، خلال الفترة من الرابع الأول لعام 2014 إلى الرابع الأول لعام 2019. عند تحليل الآثار الطويلة المدى والقناعية، وجد أن الممارسات المالية لعقود التمويل المبنية على الشريعة في الصناعات المالية الإسلامية في ماليزيا مثل عقود الماراثة والمضاربة والاستثمار، والمبيع يمكن أن تحقق التوزيع المبكر للدخل والثروة. من ناحية أخرى، أشارت النتائج إلى أن ممارسات عقود التمويل القائمة على المشاركة والإتاحة لم تحقق التوزيع المبكر للدخل والثروة في ماليزيا. قد يكون هذا بسبب الممارسات المالية لكلا العقدتين، والتي يبدو أنه يتم التعامل معها كأدوات تكميم، ومصممة لصالح القطاع المصرفي فقط. ولتحسين ممارسات التمويل في البنوك الإسلامية المتمكنة، تشير نتائج الدراسة إلى أنه يجب على مشغلي البنوك تعزيز وزن عقود التمويل القائمة على مبادئ الشريعة في الأرباح المستحازة المتوفقة مع شريعة مع الشركات الصغيرة والمتوسطة الحجم والمؤسسات. وبعبارة أخرى، فإن البنوك الإسلامية قادرة على تحقيق توزيع عادل للدخل والثروة، ودعم مفهوم العدالة للمجموع، من خلال زيادة التدريبية للتوزيع المستمر على مبدأ المشاركة مع الشركات الصغيرة والمتوسطة التي يمكن أن تنمو وتحقيق قيمة الاقتصادية إضافية. علاوة على ذلك، يجب على البنوك الإسلامية خلق مشكلة ممارسات عقود الإتاحة، اتخاذ خطوات لتعزيز متطلبات عقود الإتاحة، وتحذيرًا، فيما يخص نقل الملكية ومسؤولية الصيانة وغرامة التخلف عن السداد، ومسألة المعالجات القانونية، وكذلك تحمل
The study investigates empirically whether the current practices of *Sharīʿah*-based financing contracts namely, *Murabahah*, *Musharakah*, *Mudarabah*, *Istisna*, *Bai Bithaman Ajil*, *Ijarah* and other contracts in the Malaysian Islamic banking industry achieved equitable income and wealth distribution. To do so, the study applied the bounds test and ARDL model to investigate the relationship between *Sharīʿah*-based financing contracts and Malaysian GINI coefficient index over the period from 1Q 2014 to 1Q 2019. In analyzing the long- and short-run implications, it was found that the practice of such *Sharīʿah*-based financing contracts in the Islamic banking industry achieved equitable income and wealth distribution in Malaysia using *Murabahah*, *Mudarabah*, *Istisna*, *Bai Bithaman Ajil*, and other (i.e., forward *Ijarah*) financing contracts. On the other hand, the findings indicated that *Musharakah* and *Ijarah*-based financing contract practices did not achieve equitable income and wealth distribution in Malaysia. This may be because the current practices of both contracts which seem to be handled as debts instruments and designed to the benefit of the banking sector only. To improve the Islamic banks’ financing practices in Malaysia, the outcomes of the study suggest that bank operators should strengthen the weight of *Sharīʿah*-based profit and loss sharing financing contracts with small and mid-size enterprises (SMEs) instead of corporations. In other words, Islamic banks are able to achieve fair income and wealth distribution and uphold the concept of justice for all by gradually increasing *Musharakah*-based financing for
SMEs that can potentially grow and create economic value. Further, to solve the problem of Ijarah contract practices, Islamic banks must take steps to enhance the requirements of Ijarah contracts, specifically ownership transformation, maintenance responsibility, default penalty, and the issue of legal treatment as well as bear the costs, risks and rewards related to the leasing asset instead of borne by the client. The empirical findings of the study will provide valuable input for banks policymakers, particularly central banks, and Islamic bank management to evaluate the current practice of Islamic finance and proactively correct shortcomings to achieve equitable wealth distribution. This study is a pioneering investigation that empirically evaluates whether the current practices of Islamic banking financial instruments achieve the aims of the equitable financial system, and ensure that Islamic banks, as intermediaries, address the issue of inequality and attain equitable wealth distribution worldwide.

Keywords: Islamic Banks, Sharī’ah-based financing Contracts, Income and Wealth Distribution, Malaysia.

1.0 Introduction

Islamic finance (IF) comprises a system of ethics, deriving its key strengths from tawḥīd, ‘adālah and iḥsān as well as its inherent underlying principles such as the prohibition of unethical or unlawful conduct. For instance, the prohibition of ribā (the increment), gharar, (excessive risk) maysir (gambling) and prohibition of engaging in ḥarām practices on ethical grounds as well as IF emphasize more on the establishment of socio-economic justice (Iqbal & Mirakhor, 2017). Sharī’ah is considered the basis of the Islamic banking (IB) and financing system. The aim of the Islamic financial institutions (IFIs) is to attain the Maqasid-al-Shari’ah” and thus protect and preserve
public interests (or *Maslahah*) in all aspects of life (Hayat & Malik, 2014). As such, IFIs should endeavor to make sure that business practices are *shari'ah*-compliant; achieve social responsibilities; emphasize profit/loss-and-risk-sharing financial intermediation; transparently present all material information; meet their contractual obligations; avoid exploitation; encourage financial inclusion via microfinance; offer *qard ḥasan* and be flexible in debt recovery, and provide service excellence (Musa, 2015). On the other hand, it is generally felt that the IFIs still need to inject ethics into the existing financial system with their emphasis on Islamizing traditional financial products and services because of: (i) the wish to develop and affirm their financial feasibility; (ii) rivalry with their traditional competitors; and (iii) the traditional background of the majority of IFIs (Musa, 2015).

As stated by Schwartz and Carroll (2003; 512), “A business activity will be ethical if it promotes good in society.” Similar logic can be used in determining the ethics of the business dealings and practices of Islamic banks. The practices of an IFI are considered as ethical if it improves social welfare (*maslahah*) and morals of people in society. In contrast, any banking activity that has negative impact on social welfare or Islamic morals could be viewed as “unethical” (Ahmed, 2011). For instance, in Islamic finance, Ahmed (2011) explains that “debt can be either created by interest-free loans (*Qard Alhasan*) or sale-based debt-instruments.” He further maintains that “Debt can create transactions involving *murabahah* (cost-plus or mark-up sale), *bai-muajjal* (price-deferred sale), *istisna/salaam* (object deferred sale or pre-paid sale) and *ijarah* (leasing).” The author adds that Islamic banks conduct most of their financing by “utilizing the fixed-income debt-based products.” Although debt is allowed in Islam, several moral issues can arise because of its extent. Although Islam does not prohibit debt, however our Prophet (PBUH) advises Muslims against incurring high levels of debt, as high level of indebtedness can cause individuals to suffer economic adversity (Ahmed, 2011). “As in the saying of Prophet Mohammed (PBUH) in the Hadith narrated by 'Aisha: Allah's Apostle used to invoke Allah in
prayer, saying, "O Allah, I seek refuge with you from all sins, and from being in debt." Someone said, “O Allah's Apostle! (I see you) very often you seek refuge with Allah from being in debt.” He replied, “If a person is in debt, he tells lies when he speaks, and breaks his promises when he promises." (Bukhari, Volume 3, Book 41, Number 582) (Ahmed, 2011).

Besides the moral implications from a religious perspective, controlling the debt level can be justified in relation to welfare, and the implications at the individual and social levels (Ahmed, 2011). Adequate proof exists to indicate that the negative effects of debt on individuals and the national economies can be avoided if debt is maintained at a reasonable and manageable level. If the bank’s activities ignore the undesirable impacts of indebtedness on individual customers, the debt levels will be increased to the extent that they adversely affect the welfare of individuals, in which case such activities would be viewed as immoral in Islam. According to Ahmed (2011), “if Islamic banks concentrate narrowly on only the legal technicalities and are not concerned with the effect of debt on the moral teachings and maslahah, then they are being unethical.”

It is remarkable to point out that under debt-financing system there is disconnection between real sector and financial sector in the economy where the debt-based financing is only backed by financial asset and the movement of wealth just runs within the financial sector (Eddy Yusof, Kashoogie & Anwar Kamal, 2009)). However unfortunately, adverse impacts of financial sector are experienced through real sector in the economy. For example, during the 2007\2008 global financial crisis when the debt-based financing was the attractive financing system, all countries’ economy over the world are unstable and badly affected such as high unemployment, housing foreclosure, poverty, and inflation as there is no contribution from financial sector into real sector (Siddiqi, 2006; Akacem & Gilliam, 2002; and Eddy Yusof; Kashoogie & Anwar Kamal, 2009). On the other hand, under the Islamic financial system that is profit-loss sharing (PLS) based, there will be strong connection between the financial sector and real sector in the economy. This is because PLS-based or equity-based
financing is backed by real assets rather than financial asset in the financial sector (Eddy Yusof, Kashoogie & Anwar Kamal, 2009). Therefore, Islamic financial system that is PLS based financing will contribute more into real sector, promotes expansion and stability into the economy, motivate the employment in the economy and lead to poverty alleviation (Siddiqi, 2006). Hence, the Islamic financial system that is PLS-based financing will establish socio-economic justice among the society that meets Maqasid of Shari’ah requirements (Eddy Yusof, Kashoogie & Anwar Kamal, 2009). Thus, to achieve the social welfare among the Muslim or non-Muslim society, the PLS financing must be fully utilized by financial institutions.

In particular, Islam disapproves of any public policy resulting in wealth concentration by a small group of people (Shaikh, 2015). In Islam, due importance is specified in redistribution and reducing a concentration of wealth in few hands (Al-Quran, 59:7). The fundamental of Islamic financial system is relayed on social integrity, equality, inclusiveness, and sharing of resources between the providers and the consumers of resources. In this regard, Islamic finance solves the problem of wealth management and distribution in two significant channels, one of which involves offering risk-sharing products, namely Mudarabah (MUD), Murabahah (MUR), Musharakah (MUS), Istisna (IST), Bai Bithaman Ajil (BBA), and Ijarah (IJR), which are considered acceptable and workable alternatives to traditional debt-based financing. Such products offer opportunities for the public to get access to funds, especially for SMEs to develop their business activities and at the same time contribute to economic development. Another channel is through particular “instruments” that redistribute wealth among the Muslim public, including Zakah, Sadaqat, Waqf, and Qard-al-hassan which provide an extensive approach in eliminating poverty and building a sound and dynamic economy (Mohieldin, Iqbal, Rostom, & Fu 2011). However, the Islamic financial system has faced different ways of criticism from different scholars. These include constructive and destructive criticism (Mohieldin, Iqbal, Rostom & Fu, 2011). This is due to the fact that there is an immense gap between the Theory of Islamic Financial
System that is Sharīʿah-based with the current practices of IFIs. This situation may be seen when the level of poverty is increased abruptly day by day and the gap that separates the poor and the rich also increases in Muslim communities where the Islamic financial institutions mainly operate. In particular, even after 30 years from the launching of the pioneering Islamic banks in Dubai (1975), there are still heated debates majority of Muslim scholars on whether he current practices of Islamic banks for contracts such as baiʿal-ʿinah, baiʿ al-dayn, Baiʿ Bithaman ʿAjil (BBA), rahn, etc. are in fact simply a “backdoor” to riba or a substitute for the conventional riba-based banking practices (Al-Mubarak, & Osmani, 2010). In other words, are the contracts considered as debt instruments or risk-sharing based instruments from Islamic banks operating point of view. Basically, there is a need to establish that Sharīʿah contracts have actually achieved a satisfactory level of wealth and income distribution that can be comfortably described as just and transparent. The present study seeks empirically to examine whether the current practices of Sharīʿah based financing contracts in the Malaysian Islamic banking industry follows the equitable income and wealth distribution principles as prescribed in Sharīʿah laws.

2.0 Literature Review

Sharīʿah contracts are the backbone of the Islamic financial products available from IFIs. They are of two categories: nominated and non-nominated. The former is validated by textual evidence of the revealed sources of the Sharīʿah. This would include classical contracts such as Salam, Murabahah, Istisna’, Ijarah, Mudarabah and Musharakah. The latter refers to modern structural variations of the former that include Murabahah to the purchase ordere, parallel Salam, parallel Istisna’, financial lease and diminishing Musharakah. Most of the classical nominated contracts have taken the form of non-nominated ones in Islamic banking in order to suit the legal and financial environment of modern finance.

The literature addressing Sharīʿah contracts in Islamic banking varies according to the approach adopted, i.e., juristic vs. economic.
Fundamental juristic literature focuses on the features of each contract emanating mainly from its function and objective. This has resulted in dividing the Sharīʿah contracts into debt-based (Murabahah, Istisna’, Salam, Ijarah) and equity-based (Musharakah and Mudarabah). The former create debt and allow for transfer of risk, and the latter inject capital in a venture that allows for risk-sharing. Muslim economists and financial experts would mainly focus on the economic and financial impact of Sharīʿah contracts. The discussion and the literature below will address both approaches.

2.1 Theoretical Objectives (Maqasid) and Features of Sharīʿah Contracts: Jurists’ View

To disclose the relationship between Sharīʿah contracts and equitable wealth and income distribution, one has to reiterate the objectives that Sharīʿah aims to achieve by introducing Sharīʿah contracts. Kuwait’s Al-Mawsu’ah al-Fiqhiyyah (2007) encapsulated the primary objective of Sharīʿah contracts as being Rida (Satisfaction). This alludes to the actual transfer of ownership via trade as well as equitable arrangements in partnership contracts (Mudarabah and Musharakah). Undoubtedly, satisfaction goes beyond profit and loss ratios and profit margins for the sake of creating a value-based economy.

The most contemporary seminal work highlighting the objectives of Sharīʿah contracts is that by al-Tahir bin Ashur (2011). He cited five objectives consisting of the protection of wealth, justice, circulation, transparency, and firmness. The objective of justice seems to be more relevant to equitable wealth and income distribution. In his treatise on Maqasid, bin ‘Ahsur confirmed the objective of justice by exploring the textual evidence of the Qur’an and Sunnah converging on the meaning of “justice”. Specific objectives of Sharīʿah contracts have been identified by Abū Ghuddah (1997) and Lahsasna (2013) in reference to Islamic finance. This includes the objective of justice for exchange contracts (Mu’awadat), “fairness and integration” for partnership contracts (Mushārakat), “benevolence” (Iḥsān) for donation contracts, and “security” for surety instruments. Although no details were provided as to the application of these contracts, equitable wealth and income distribution are regarded as falling under the objective of justice.
Favoring risk-sharing contracts, the well-known contemporary jurist, Taqi al-Uthmani remarked that “the real and ideal instruments of financing in Sharī‘ah are Musharakah and Mudarabah” (Uthmani, 2007, p. 19). By sharing profit and loss, more people will benefit from the venture. This will render Musharakah, according to al-Uthmani, as facilitating “a tendency to favour the common people rather than the rich only” (al-Uthmani, 2007, p. 29). In the same vein, the preferences of Musharakah and Mudarabah as risk-sharing instruments in Islamic banks have been widely supported by contemporary jurists. For example, al-Qaradaghi (n.d) considered the profit and loss principle in Musharakah an important factor that can contribute towards achieving economic development. The latter, according to him, is an objective of the Sharī‘ah. He also sees in Mudarabah a fair arrangement whereby the parties to the Mudarabah have equal rights and responsibilities in sharing profit and accepting losses (Quradaghi, 2013).

2.2 Studies Challenges in Applying Mudarabah and Musharakah

Muslim economists have not fundamentally differed from that of the jurists. From the macro perspective, Chapra (1987) outlined the main features of a just monetary and banking system that would achieve equitable wealth and income distribution. His submission revolves around the linkage between justice and human brotherhood, which is triggered by a spiritual catalyser in an Islamic economy. From a micro perspective where Sharī‘ah contracts are at stake, some Muslim economists addressed the main features of Sharī‘ah contracts, whether debt-based or equity-based. Mundir Qahf (2011) emphasized “the objectives of satisfaction, equitable rights, ethical dimension, and transacting in real business activities.” Siddiqi (2004) ranked justice as “the main objective of Islamic finance aiming to achieve an equitable financial system.” According to him, “what is sought in the financial system is justice and equity [Iḥsān]… Prohibition of Ribā/interest is part of Islamic guidance designed to play a key role in ensuring a just and equitable financial system” (Siddiqi, 2004, p. 34). To achieve such an equitable system, he favoured Musharakah and Mudarabah just like his predecessor Ahmad al-Najjar, one of the pioneers of Islamic banking who is deemed to have launched the first Islamic bank in the early 1960s in Egypt (Dawabah, 2018).
In analysing the economic impact of *Sharīʿah* contracts, Muslim economists observed that the contemporary structures of debt based *Sharīʿah* contracts such as *Murabahah* and *Ijarah* have blurred the distinct feature of Islamic finance, namely equitable wealth distribution. Al-Masri (2007) is an ardent critic of the complex structure of *Murabahah* for the purchase orderer (MPO), which is widely practised by Islamic banks. According to him, MPO is no more than a loan with interest disguised under Islamic terms. He expressed the same concern against *Tawarruq* (commodity *Murabahah*), which he considers a blatant legal stratagem (*Hilah*) to evade the prohibition of *ribā* (usury). This, in economic terms, is contrary to equitable wealth and income distribution since the Islamic bank is transferring risk and not sharing it with the customer.

The same concern is shared by Sami al-Suwailem (2009) who argued that debt-based contracts have a manifold negative economic impact, despite some positive aspects in their application. He maintained that debt (*Sharīʿah* debt-based contracts included) leads to inflation, risk-averse attitude, impending bankruptcy as a result of high debt-to-income ratio, and economic instability. Although his argument echoes the world’s monetary and economic agencies about the repercussions of the rise of debt in modern economies, micro perspectives have shown that the asset to debt ratio in some countries like Malaysia (BNM, 2010) has maintained a stable position, recording 2.2 times (the average household has assets more than double its debt burden). Emphasising the alarming effects of the rise of debt in any economic system (debt-based *Sharīʿah* contracts included), al-Zarqa (2012) concurred with al-Suwailem on the negative effects of debt, he (al-Zarqa) added other effects, namely unpredictability in revenues, increase of defaulting rates, and greater public expenditure. These circumstances may be worsened by the mechanism of fractional reserve, “which creates money from thin air,” thus aggravating the debt issue. Although each negative effect mentioned by al-Suwailem and al-Zarqa requires empirical investigation for validation, the mounting criticism by *Sharīʿah* scholars and Muslim economists against *Murabahah* to the purchase orderer, being the most prevailing *Sharīʿah* contract in Islamic banks, coupled with *Tawarruq*, is far from abetting.
To promote the profit-sharing feature inherent in *Mudarabah* and *Musharaah*, Iqbal & Mirakhor (2011) shunned the debt-based system due to several negative impacts. According to them, a system based on debt requires a “lender of last resort,” bankruptcy proceedings, debt restructuring, and workout mechanism. In their view, when such a system was tested in the 2007-2009 financial crisis, it showed many vulnerabilities such as excessive leverage, failure of market discipline, and being detached from real economic transactions. Iqbal and Mirakhor’s strong support for profit and loss sharing contracts resonates with many Muslim economists to change the model of Islamic banking to accommodate real profit and loss sharing arrangements. However, Zubir (2015) remarked that Mirakhor’s strong call for “profit and loss sharing” is inconsistent with the latter’s argument that “debt-based financing is required for the successful operation of the financial system.”

By and large, Muslim economists focus on the economic aspect of *Sharīʿah* contracts, leading them to conclude that debt based *Sharīʿah* contracts behave in the same way as conventional loans. Al-Sa’ati (2018) vehemently criticises the prevailing debt-based model of Islamic banking, reiterating that profit and loss sharing model that uses *Musharakah* and *Mudarabah* (M&M) is ideal and a model that must be applied. He is of the view that the M&M model will be more effective in allocating funds to projects with an added value and not solely to those with merely good credit worthiness. The M&M model will restrict credit to non-viable projects, leading to price stability and decrease in inflation. Al-Sa’ati added that this model would realise justice in distributing the returns, thus achieving fair distribution of wealth and income.

### 2.3 Studies Challenges in Applying Mudarabah and Musharakah

Dissecting the income distribution feature of *Mudarabah*, Choudhry (2001) critically noted that *Mudarabah* lacks precision in capitalising the value of wages of the participants in a joint venture. This, according to him, has made the determination of the profit rate ratio poor. The imprecise measurement of profit-sharing in *Mudarabah*, according to Choudry (2001, p. 17), has led to problems related to “the development of entitlement, empowerment, and the possibility of
continuous re-contracting between labour and capital owners, all of which are linked with developmental issues on the side of equitable distribution of resources among participants”. In his view, the current practice of *Mudarabah* is more for wealth accumulation rather than wealth distribution.

Siddiqi (n.d) pointed out to the moral hazard facing *Mudarabah* whereby the *Mudarib*, being the agent of the capital provider (the bank), may act in a way that is detrimental to the capital provider. Further, the *Mudarib* may hide material information to gain unlawfully (asymmetric information). This is the agency problem in *Mudarabah* and *Musharakah*, which according to Iqbal and Mirakhor (2011), can be minimised through strict adherence to the agreed contractual terms and conditions, enhancement of transparency, honesty and the commitment to the commercial ethical code. Monitoring the operational aspect of *Mudarabah* and *Musharakah* by the regulators and robust *Sharīʿah* internal controls are the lines of defence to face the agency problem. The failure to observe this risk may affect the investors and lead to wealth and income loss.

Rusni and Nurul Iffah (2019) studied *Musharakah Mutanaqisah* (diminishing partnership) in two Islamic banks in Malaysia. They found that this mode of financing is fading away due to challenges facing the sampled banks. These challenges included the obligation by the regulators to return the advance rental collected by the financing bank from the customers. Furthermore, the amount of financial disbursement would be forfeited should a project be abandoned. Besides, there are issues related to maintenance, which is currently borne solely by the customer in a supposed partnership contract that calls for profit and loss sharing that should also require maintenance cost sharing.

Based on the above literature, there is a gap in proving that *Sharīʿah* contracts have achieved satisfactory levels of wealth and income distribution that can be comfortably described as just and transparent. In other words, the current study aims empirically to investigate whether the current practices of shariah based financing contracts namely *Murabahah* (MUR), *Musharakah* (MUS), *Mudarabah* (MUD), *Istitina* (IST), Bai Bithaman Ajil (BBA), *Ijarah* (IJR) and other contracts in the Malaysian Islamic banking industry
achieved equitable income and wealth distribution. The remainder of the research will provide the method and an empirical analysis of the Sharīʿah contracts practised in Malaysia vis-à-vis wealth and income distribution.

3.0 Methodology

3.1 Data, Data Sources and Variable Definitions

In this study, the M-GINI refers to the Malaysia GINI Coefficient index, whereby its data has been gathered from the respected website of the World Bank database covering Quarter One 2014 to Quarter One of 2019. The data of Islamic financing Sharīʿah compliant based contracts in Malaysia, namely Murabahah (MUR), Musharakah (MUS), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), and Ijarah (IJR) and others (forward Ijarah and ju'alah) were obtained from the database website of the Islamic Financial Service Board (IFSB) over the same period. In addition, the data of all independent variables under the study have been transferred into logarithm form as time series data exposed to seasonal variations, trend variations, cyclical variations and irregular fluctuations (Wallace & Hussain, 1969).

Each financing contract is defined and described as follows: “Murabahah financing is an agreement on the provision of goods based on buying and selling where the bank finances or buys the needs of the customer’s goods or investments and resells them to the customer plus the agreed mark-up (Dzatihanani & Rosyadi, 2019). Musharakah is defined as “a joint enterprise or partnership structure in Islamic finance in which partners share in the profits and losses of an enterprise” (Osmani & Abdullah, 2010). Mudarabah is described as “a contractual relationship executed between two parties, one supplying the capital (Rabbulmal) and the other supplying the labor and skill as agent or manager” (Mudarib) (Iqbal, & Llewellyn, 2002). Istisna is defined as “a contract of exchange, whereby the funding party agrees to deliver a commodity or an asset at a pre-determined future time at an agreed price” (Gait & Worthington, 2007). Bai Bithaman Ajil is “a deferred payment sale, which works like a Murabahah contract, but with payment generally made on a deferred
basis” (Rosly, 1999). *Ijara* is described as “an agreement that permits one party (the lessee) to use an asset or property owned by another party (the lessor) for an agreed-upon price over a fixed period” (Usmani, 2006).

### 3.2 Method of Analysis

This current research used the Autoregressive Distributed Lag (ARDL) method to examine the associations of the Islamic financing *Sharīʿah*-compliant-based contract variables in the Malaysian Islamic banking industry and Malaysian GINI Coefficient index. The ARDL approach was used as it had the capability to offer strong long-run outcomes using a small sample size and could be applied if the variables under study were I (1) or I (0) or mutually integrated (Pesaran, Shin & Smith, 1996, 2001; Narayan, 2004).

Before applying the ARDL approach, all variables were tested for unit root to determine if the data of the variables were stationary on the level or in the first difference. According to the outcomes of the unit root tests as stated in the next section, it was noted that the data consisted of stationary and non-stationary information. Accordingly, this provided the justification for the application of the ARDL method.

The formula for the unrestricted ARDL model is as follows:

\[
\Delta M - \text{GINI}_t = \alpha_0 + \alpha_1 t + \sum_{i=1}^{p-1} b_i \Delta M - \text{GINI}_{t-i} + \\
\sum_{i=0}^{p-1} d_i \Delta \text{LMUR}_{t-i} + \sum_{i=0}^{p-1} e_i \Delta \text{LMUS}_{t-i} + \sum_{i=0}^{p-1} f_i \Delta \text{LMUD}_{t-i} + \\
\sum_{i=0}^{p-1} g_i \Delta \text{LIST}_{t-i} + \sum_{i=0}^{p-1} k_i \Delta \text{LBBA}_{t-i} + \sum_{i=0}^{p-1} l_i \Delta \text{LJR}_{t-i} + \\
\sum_{i=0}^{p-1} m_i \Delta \text{OTHERS}_{t-i} + \delta_1 M - \text{GINI}_{t-1} + \delta_2 \text{LMUR}_{t-1} + \\
\delta_3 \text{LMUS}_{t-1} + \delta_4 \text{LMUD}_{t-1} + \delta_5 \text{LIST}_{t-1} + \delta_6 \text{LBBA}_{t-1} + \\
\delta_7 \text{LJR}_{t-1} + \delta_8 \text{OTHERS}_{t-1} + \mu_t 
\]  

(1)

Where:

\(\Delta M-\text{GINI}, \Delta \text{LMUR}, \Delta \text{LMUS}, \Delta \text{LMUD}, \Delta \text{LIST}, \Delta \text{LBBA}, \Delta \text{LJR}\) and \(\Delta \text{OTHERS}\) are the first difference of the Murabahah (MUR), Musharakah (MUS), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), and Ijarah (IJR) and other Islamic *Sharīʿah* contracts.

\(\alpha_0\) refers to the constant term, \(\alpha_1 t\) the intercept and time trend that may be added,
p denotes the greatest number of lags order,

\( t \) is the time,

\( (b_i, d_i, e_i, f_i, g_i, k_i, l_i, m_i) \) refer to the coefficient of the first difference variables of the short-run parameters,

the term \( \delta \) refers to the coefficient of the long-run relationship, and the \( \mu_t \) refers to the white noise residual.

Following the ARDL approach, the analysis consists of three steps: identification of the “optimal lag”; verifying for cointegration employing “The Bound Test,” and finally, providing estimations of the long- and short-run relationships with the associated error correction term (ECT). Thus, the variables studied were initially tested for cointegration through the application of the ARDL bound testing approach. The ARDL cointegration test examined the hypotheses below:

\[ H_0 : \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = \delta_7 = \delta_8 = 0 \text{ i.e., there is no long-run relationship between the variables} \]

\[ H_a : \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq \delta_7 \neq \delta_8 \neq 0 \text{ i.e., there is cointegration or long-run relationship between the variables.} \]

### 3.3 Long- and Short-run Dynamics Coefficient Estimation

After the long-run relationship (cointegration) was determined on the basis of the bound test results which will be presented in the next section, the long-run relationship between the Malaysian GINI Coefficient index and Islamic financing \( \text{Sharī'ah-compliant-based contracts} \) variables were estimated employing the following ARDL \((m_1, m_2, m_3, m_4, m_5, m_6, m_7 \text{ and } m_8)\) model:

\[
M - \text{GINI}_t = \alpha_0 + \sum_{i=1}^{m_1} \alpha_1 M - \text{GINI}_{t-i} + \sum_{i=0}^{m_2} \alpha_2 \text{LMUR}_{t-i} + \\
\sum_{i=0}^{m_3} \alpha_3 \text{LMUS}_{t-i} + \sum_{i=0}^{m_4} \alpha_4 \text{LMUD}_{t-i} + \sum_{i=0}^{m_5} \alpha_5 \text{LIST}_{t-i} + \\
\sum_{i=0}^{m_6} \alpha_6 \text{LBBA}_{t-i} + \sum_{i=0}^{m_7} \alpha_7 \text{LIJR}_{t-i} + \sum_{i=0}^{m_8} \alpha_8 L - \text{OTHERS}_{t-i} + \mu_t
\]

Where:

\( \alpha_0 \) denotes the constant term,

\( \alpha_1 \ldots \alpha_8 \) refers to the coefficient of the long-run relationships of the variables,
[\{m_1, m_2, m_3, m_4, m_5, m_6 \text{ and } m_7\}] denotes the lag orders for every variable in the model,
\(\mu_t\) refers to the white noise residual,
\(t\)- denotes the time, and
\(i\) refers to time of the previous observation value.

The short-run estimated coefficients are obtained using the Error Correction Model (ECM) of the following formula:

\[
\Delta M - GINI_t = \beta_0 + \sum_{i=1}^{p-1} \beta_1 \Delta M - GINI_{t-i} + \\
\sum_{i=0}^{p-1} \beta_2 \Delta LMUR_{t-i} + \sum_{i=0}^{p-1} \beta_3 \Delta LMUS_{t-i} + \sum_{i=0}^{p-1} \beta_4 \Delta LMUD_{t-i} + \\
\sum_{i=0}^{p-1} \beta_5 \Delta LIST_{t-i} + \sum_{i=0}^{p-1} \beta_6 \Delta BBA_{t-i} + \sum_{i=0}^{p-1} \beta_7 \Delta LIJR_{t-i} + \\
\sum_{i=0}^{p-1} \beta_8 \Delta OTHERS_{t-i} + \psi ECM_{t-1} + \mu_t
\]

(3)

Where:
all variables are as earlier defined,
\(\beta_0\) is the constant term,
\(\beta_1 \ldots \beta_8\) indicates the coefficient of the first difference variables,
\(\psi\) is the adjustment coefficient of the error term (\(ECM_{t-1}\)), which is derived from the long-run relationship estimated in equation number (2),
\(p\) is the greatest number of lags lengths,
\(\mu_t\) refers to the white noise residual,
\(t\)- represents the time, and
\(i\) denotes the time of the previous observation value.

4.0 Analysis and Discussion

Table 1 summarizes the statistics for the quarterly time series data of the Malaysia GINI Coefficient index and Islamic financing \(\text{Sharīʿah-compliant-based contracts}\) in the Malaysian banking industry, namely Murabahah (MUR), Musharakah (MUS), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), and Ijarah (IJR) and other Islamic \(\text{Sharīʿah contracts}\). All variables show a positive mean return with different levels of volatility. High volatility refers to high risk as measured by standard deviation. The Murabahah (MUR) contract exhibits high volatility with a high standard deviation of 53198.61.
This is followed by *Musharakah* (MUS), Others, *Bai Bithaman Ajil* (BBA), *Ijarah* (IJR), *Istisna* (IST), and *Mudarabah* (MUD) contracts with standard deviations of 12578.77, 9078.84, 7417.43, 2841.04, 158.87, and 12.05 respectively. In addition, the MUR, MUS, MUD and IST contracts have negatively skewed return distributions, suggesting that they have a long-left tail and anticipate loss in the near future. On the other hand, the BBA and other Islamic contracts have positively skewed return distributions that suggest they have a long-right tail and anticipate more profit for the banking industry in the near future. Lastly, the Jarque-Bera normality test results assume normality distribution for all variables under the study except for IJR variables as the P-value is below the critical value of 5%.

### Table 1: Descriptive Statistics for Malaysian GINI Index and Islamic Banks Financings Based on Shari'ah Compliant Contracts

<table>
<thead>
<tr>
<th></th>
<th>M-GINI</th>
<th>MUR</th>
<th>MUS</th>
<th>MUD</th>
<th>IST</th>
<th>BBA</th>
<th>IJR</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>0.414</td>
<td>144288.70</td>
<td>36436.56</td>
<td>67.47</td>
<td>1923.33</td>
<td>71198.60</td>
<td>79110.11</td>
<td>155350.60</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>0.413</td>
<td>145006.60</td>
<td>38079.83</td>
<td>71.38</td>
<td>1911.90</td>
<td>70204.95</td>
<td>80130.19</td>
<td>153370.60</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>0.428</td>
<td>227643.20</td>
<td>54419.46</td>
<td>80.49</td>
<td>2202.17</td>
<td>83327.30</td>
<td>81880.68</td>
<td>173929.00</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0.399</td>
<td>58958.93</td>
<td>17404.78</td>
<td>43.71</td>
<td>1552.69</td>
<td>59829.39</td>
<td>71029.15</td>
<td>141166.10</td>
</tr>
<tr>
<td><strong>Std. Dev.</strong></td>
<td>0.010</td>
<td>53198.61</td>
<td>12578.77</td>
<td>12.05</td>
<td>158.87</td>
<td>7417.43</td>
<td>2841.04</td>
<td>9078.84</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>-0.008</td>
<td>-0.07</td>
<td>-0.04</td>
<td>-0.96</td>
<td>-0.18</td>
<td>0.15</td>
<td>-1.75</td>
<td>0.59</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>2.170</td>
<td>1.77</td>
<td>1.52</td>
<td>2.70</td>
<td>2.93</td>
<td>1.72</td>
<td>5.10</td>
<td>2.60</td>
</tr>
<tr>
<td><strong>Jarque-Bera</strong></td>
<td>0.603</td>
<td>1.33</td>
<td>1.92</td>
<td>3.31</td>
<td>0.12</td>
<td>1.51</td>
<td>14.54</td>
<td>1.38</td>
</tr>
<tr>
<td><strong>Probability</strong></td>
<td>0.740</td>
<td>0.51</td>
<td>0.38</td>
<td>0.19</td>
<td>0.94</td>
<td>0.47</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

The unit root tests were performed utilizing the Augmented Dickey-Fuller (ADF) and PP test to ensure all the variables under study are not spurious. In other words, to check whether time series data of the variables are stationary on the level I (0) or on the first difference I (1). Table 2 reports the unit root test findings. Based on the ADF/ PP test, the outcomes show that not all the variables under study are stationary on level. In other words, the variables are mutually integrated (some are stationary at I (0) and others at I (1)). This, therefore, justifies the utilization of the ARDL model of Psarian et al. (2001) to estimate the cointegration relationship between the variables of interest.
Table 2. Unit Root test Results for the Variables under Study

<table>
<thead>
<tr>
<th>Name of Variables</th>
<th>On Levels Intercept and Trend</th>
<th>On First Differences Intercept and No Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF</td>
<td>PP</td>
<td>ADF</td>
</tr>
<tr>
<td>M-GINI</td>
<td>-1.724370</td>
<td>-1.794792</td>
</tr>
<tr>
<td>MUR</td>
<td>-3.316777*</td>
<td>-3.316777*</td>
</tr>
<tr>
<td>MUS</td>
<td>-1.140498</td>
<td>-1.456546</td>
</tr>
<tr>
<td>MUD</td>
<td>-1.399121</td>
<td>-1.066788</td>
</tr>
<tr>
<td>IST</td>
<td>-6.915833***</td>
<td>-2.258478</td>
</tr>
<tr>
<td>BBA</td>
<td>-3.308718*</td>
<td>-3.285964*</td>
</tr>
<tr>
<td>IJR</td>
<td>-4.933171***</td>
<td>-2.812656</td>
</tr>
<tr>
<td>OTHERS</td>
<td>-1.234156</td>
<td>-1.405573</td>
</tr>
</tbody>
</table>

The ***, ** and * denote significance level at 10%, 5% and 1% respectively

After confirming the order of integration for each individual variable, the study estimates the unrestricted ARDL model illustrated in Appendix I to get the ideal lag length utilizing the Akaike’s Information Criteria (AIC), Schwartz-Bayesian Criteria (SBC), and Hannan-Quinn Criterion (HQC) and $R^2$ Criterion. In addition, the lag order of an ARDL model for the eight variables, namely, M-GINI, MUR, MUS, MUD, IST, BBA, IJR, and others are selected based on the $(p+1)^{k+1}$ formula, where $p$ = the highest number of lags to be used, and $k$ = the number of regressors in the equation. This facilitates the selection of the ideal ARDL (2, 1, 1, 1, 1, 1, 1, 1) specification as illustrated in Table 3 and Figure 1.

Table 3: Selecting the Optimal Lag Order with the best model Specification.
(Unrestricted intercept and not trend)

<table>
<thead>
<tr>
<th>Model</th>
<th>LogL</th>
<th>AIC*</th>
<th>BIC</th>
<th>HQ</th>
<th>Adj. R-sq</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>107.190016</td>
<td>-9.49369</td>
<td>-8.64866</td>
<td>-9.35067</td>
<td>0.932264</td>
<td>ARDL(2, 1, 1, 1, 1, 1, 1, 1)</td>
</tr>
<tr>
<td>17</td>
<td>105.784603</td>
<td>-9.45101</td>
<td>-8.65569</td>
<td>-9.31641</td>
<td>0.947642</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 1, 1)</td>
</tr>
<tr>
<td>65</td>
<td>100.087602</td>
<td>-8.85133</td>
<td>-8.05601</td>
<td>-8.71673</td>
<td>0.904628</td>
<td>ARDL(2, 0, 1, 1, 1, 1, 1, 1)</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>81</td>
<td>98.415135</td>
<td>-8.78054</td>
<td>-8.03493</td>
<td>-8.65435</td>
<td>0.914702</td>
<td>ARDL(2, 0, 1, 0, 1, 1, 1)</td>
</tr>
<tr>
<td>73</td>
<td>93.195607</td>
<td>-8.23112</td>
<td>-7.48551</td>
<td>-8.10493</td>
<td>0.852243</td>
<td>ARDL(2, 0, 1, 1, 0, 1, 1)</td>
</tr>
<tr>
<td>82</td>
<td>91.748477</td>
<td>-8.18405</td>
<td>-7.48815</td>
<td>-8.06628</td>
<td>0.862344</td>
<td>ARDL(2, 0, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>9</td>
<td>93.486479</td>
<td>-8.15647</td>
<td>-7.36115</td>
<td>-8.02187</td>
<td>0.808931</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 1)</td>
</tr>
<tr>
<td>66</td>
<td>92.426929</td>
<td>-8.1502</td>
<td>-7.40459</td>
<td>-8.02402</td>
<td>0.839790</td>
<td>ARDL(2, 0, 1, 1, 1, 1, 0)</td>
</tr>
<tr>
<td>18</td>
<td>91.847772</td>
<td>-8.08924</td>
<td>-7.34363</td>
<td>-7.96305</td>
<td>0.829719</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>2</td>
<td>92.540671</td>
<td>-8.05691</td>
<td>-7.2616</td>
<td>-7.92231</td>
<td>0.788929</td>
<td>ARDL(2, 1, 1, 1, 1, 1, 0)</td>
</tr>
<tr>
<td>89</td>
<td>90.407431</td>
<td>-8.04289</td>
<td>-7.34699</td>
<td>-7.92511</td>
<td>0.841474</td>
<td>ARDL(2, 0, 1, 0, 1, 1, 1)</td>
</tr>
<tr>
<td>10</td>
<td>91.075605</td>
<td>-8.00796</td>
<td>-7.26235</td>
<td>-7.88177</td>
<td>0.815301</td>
<td>ARDL(2, 1, 1, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>74</td>
<td>89.713342</td>
<td>-7.96983</td>
<td>-7.27392</td>
<td>-7.85205</td>
<td>0.829458</td>
<td>ARDL(2, 0, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>25</td>
<td>90.583154</td>
<td>-7.95612</td>
<td>-7.21051</td>
<td>-7.82994</td>
<td>0.805474</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 1)</td>
</tr>
<tr>
<td>90</td>
<td>88.048913</td>
<td>-7.89989</td>
<td>-7.25369</td>
<td>-7.79052</td>
<td>0.830668</td>
<td>ARDL(2, 0, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>26</td>
<td>88.113901</td>
<td>-7.80146</td>
<td>-7.10556</td>
<td>-7.68369</td>
<td>0.798186</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>49</td>
<td>85.872887</td>
<td>-7.4603</td>
<td>-6.71469</td>
<td>-7.33412</td>
<td>0.680619</td>
<td>ARDL(2, 1, 0, 0, 1, 1, 1)</td>
</tr>
<tr>
<td>3</td>
<td>86.765616</td>
<td>-7.44901</td>
<td>-6.6537</td>
<td>-7.31441</td>
<td>0.612353</td>
<td>ARDL(2, 1, 1, 1, 0, 1, 0)</td>
</tr>
<tr>
<td>19</td>
<td>85.732429</td>
<td>-7.44552</td>
<td>-6.69991</td>
<td>-7.31933</td>
<td>0.675862</td>
<td>ARDL(2, 1, 1, 0, 1, 1, 0)</td>
</tr>
<tr>
<td>113</td>
<td>84.551882</td>
<td>-7.42651</td>
<td>-6.73061</td>
<td>-7.30874</td>
<td>0.706378</td>
<td>ARDL(2, 0, 0, 0, 1, 1, 1)</td>
</tr>
</tbody>
</table>

Figure 1: Graphically Exposed Optimal Lag with Best Model Specification
4.1 Bounds Test Results

The Bounds Test findings are shown in Table 4, whereas the computed $F$ – statistics value of 12.2752 exceeds the critical values of 2.73 and 3.90, respectively, for both the lower $I(0)$ and the upper $I(1)$ bounds value of the Narayan (2005) table at significance level of 1%. This finding is evidence of the cointegration relationship between the dependent variable of Malaysia GINI Coefficient index, and the independent variables which are Murabahah (MUR), Musharakah (MUS), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), Ijarah (IJR) and other Islamic Sharīʿah contracts financing in the Malaysian Islamic banking industry. Thus, the null hypothesis that “There is no cointegration between the variables under study” IS rejected. As such, the study can proceed by estimating the long- and short-run coefficients for the proposed ARDL model.

Table 4: Bounds Test Results for Cointegration

<table>
<thead>
<tr>
<th>Model</th>
<th>F-Stat</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Unrestricted intercept and not trend)</td>
</tr>
<tr>
<td>M-GINI</td>
<td>12.2752</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: The critical values are obtained from Narayan (2005) Table for the case III (Unrestricted Intercept with no Trend in), *** Denotes for significance level at 1%.

4.2 Long-run Estimation

Table 5 reports the findings of the long-run relationship between Islamic finance Sharīʿah based contracts with the Malaysia GINI Coefficient index as an indication of inequality of income and wealth distribution as the dependent variable. The findings suggest that the majority of Islamic finance Sharīʿah-based contracts, namely MUR, MUD, IST, BBA and other Islamic Sharīʿah contracts share a significant negative long-run relationship with the Malaysian GINI Coefficient index. This is due to the fact that the Sharīʿah focuses on
risk-sharing as a salient feature of Islamic financial transactions (Mirakhor & Zaidi, 2007).

Several principles of Islamic finance promote income and wealth equally distribution. The sustainability of Islamic finance supports economic growth by lowering poverty and promoting shared prosperity (Aziz, 2015). In addition, Islamic finance contributes to significant growth of the economy by linking directly to physical assets and the real economy.

Secondly, emphasis on profit and loss sharing encourages the availability of financial support to productive businesses that can enhance output and lead to the generation of employment opportunities. The focus on tangible assets guarantees that the industry supports only transactions serving a real purpose, hence preventing financial speculation (Aziz, 2015).

Thirdly, the redistribution of wealth and opportunities in Islamic finance promotes development in the financial sector and widens financial inclusiveness. This is achieved by redistributing wealth and opportunities. Islamic finance improves financial accessibility and allows the unbackable and marginalized groups to be included. The risk-sharing modes of financing help improve accessibility to finance further for the poor and for small enterprises (Aziz, 2015). Demirgüç-Kunt and Levine (2008) argued that by the exclusion of a sizeable part of the public from accessing finance, the financial system adds to the continued existence of economic inequality and limits the economic options available to the poor. Similarly, Thurow (1980) maintained that, in a traditional banking system, credit is extended to those with a strong financial position and who can offer collateral instead of financing the ventures of the most intelligent or deserving based on merit (Thurow, 1980).

In this regard, it is recommended that IFIs should exclude less people from accessing so that they can play their role to reduce economic inequality and improve the economic opportunities for otherwise marginalized groups (Hachicha & Ben Amar, 2015). Thus, the IFIs collectively can play a very significant role as intermediaries to attain equitable wealth distribution and help in narrowing the inequality gap.
Table 5: Estimated Long-Run Coefficients using the ARDL Approach, (2, 1, 1, 1, 1, 1, 1, 1) Selected Based on AIC Criterion, Dependent Variable is M-GINI Index

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-1.9185</td>
<td>0.8967</td>
<td>-2.1395</td>
<td>0.1658</td>
</tr>
<tr>
<td>LOG(MUR)</td>
<td>-0.1361**</td>
<td>0.0273</td>
<td>-4.9817</td>
<td>0.0380</td>
</tr>
<tr>
<td>LOG(MUS)</td>
<td>0.0634</td>
<td>0.0404</td>
<td>1.5693</td>
<td>0.2571</td>
</tr>
<tr>
<td>LOG(MUD)</td>
<td>-0.0331*</td>
<td>0.0102</td>
<td>-3.2611</td>
<td>0.0826</td>
</tr>
<tr>
<td>LOG(IST)</td>
<td>-0.0800**</td>
<td>0.0180</td>
<td>-4.4568</td>
<td>0.0468</td>
</tr>
<tr>
<td>LOG(BBA)</td>
<td>-0.1639**</td>
<td>0.0356</td>
<td>-4.6029</td>
<td>0.0441</td>
</tr>
<tr>
<td>LOG(IJR)</td>
<td>0.4707***</td>
<td>0.0463</td>
<td>10.1590</td>
<td>0.0096</td>
</tr>
<tr>
<td>LOG(OTHERS)</td>
<td>0.0458</td>
<td>0.0446</td>
<td>1.0265</td>
<td>0.4126</td>
</tr>
</tbody>
</table>

The ***, ** and * denotes for significance level at 10%, 5% and 1% respectively.

Table 5 exhibits that MUS and IJR contracts share positive long-run relationship with the M-GINI Index. This suggest that the current practices of Musharakah and Ijarah financing contract in the Malaysian banking industry contribute to increasing the inequalities of income and wealth distribution. They do not favour people but focus on benefiting the banking sector. In the case of the Musharakah contract, Musharakah-based financing contributed positively to inequality in income and wealth distribution in Malaysia. This is because Musharakah-based financing, price and market risks are not taken by the banks (Shaikh, 2011). In other words, as explained by Abdul-Rahman and Nor (2017), theoretically, the Musharakah-based financing “promotes the development of Islamic economics through collaborative business that emphasizes sharing profits and losses”. In practice, implementing Musharakah-based financing is a challenge due to high market risk, partner selection and demand risk and capital security. Musharakah-based financing could be described as “high risk investments that are difficult to implement due to their high probability of failure,” resulting from entrepreneurs’ inadequate skills and experience in business as well as high cost of operations, among other...
factors. As such, the authors recommend that all these factors should be considered before offering this type of financing.

The process of selecting a business partner is a significant issue to Islamic banks in offering Musharakah-based financing. Selecting a business partner is a challenge as there is a need to examine risk from various angles. Islamic banks need to select a client with a long track record and evidence credible financial performance prior providing the necessary finance, this therefore suggests that IFIs offer Musharakah-based financing only to recognized big corporations. If this continues, IFIs will be no different from traditional financial institutions where inequality of income and wealth distribution exists, and the rich grow richer and the poor, become poorer.

The Musharakah-based financing contracts are mainly demanded by those who lack the funds to grow and are in the initial phases of their business. SMEs face significant risk of failure due to the unpredictable business potential. As has been mentioned earlier, the invested funds are from the depositors and not the bank. Thus, Islamic banks still could promote the concept of justice by offering Musharakah-based financing to small and medium entrepreneurs provided the business partners can convince the banks that they have the planning and operation of the business clearly outlined and can realistically develop their business to ensure equitable income and wealth distribution (Abdul-Rahman & Nor, 2017). Further, “the capital guarantee will prove the genuine determination and commitment of both parties in conducting the business. As such, the probability of fraud is reduced while ensuring the business is on the right track. However, not all partners can afford to provide capital guarantees since those requesting financing are clients who lack capital. This is a challenge for Islamic banks in providing financing through Musharakah if the Islamic banks’ mindset is still based on the framework of financial intermediaries” (Abdul-Rahman & Nor, 2017).

For the Ijarah contract, Table 5 shows that Ijarah-based financing contracts and inequality of income and wealth distribution in Malaysia are positively and significantly related. This is because there are fiqh (Islamic jurisprudence) issues that are ignored by Islamic banks relating to the operation and practices of Ijarah contracts, particularly Al-Ijarah Thumma Al-Bay (AITAB)-based financing.
contracts. These issues include ownership transformation, maintenance responsibility, default penalties, and the issue of legal treatment (Shiyuti et al., 2012). In particular, the issue of ownership transformation is considered one of the most Islamic jurisprudence issues in Islamic banking, as it leads to more risks and responsibilities to the lessee. Most Islamic banks try to avoid this risk through the transfer of ownership. For instance, in Islamic banks, the bank owns the asset in *Ijarah*-based financing and the usufruct is leased to the lessee. Then, the subject asset is the property of the lessee in respect of risk and reward as an owner, whereas the bank is the registered owner (Shiyuti et al., 2012). The asset title is transferred to the lessees once the asset has depreciated. Ayub (2013) explains: “The leased asset is not recorded in the client’s books/statements. However, all the related expenses are recorded in the client’s books. This is more destructive to society than a traditional leasing financing, which involves the effective transfer of all risks and rewards associated with the ownership to the lessee.”

In addition, regarding asset maintenance, the banks, which are the owners are liable for the basic maintenance. On the other hand, with the Malaysian Islamic banks today, the lessee gradually takes responsibility for maintenance instead if the lessor, especially in AITAB-financing-based contracts (Shiyuti et al., 2012). For the issue of the default penalty, the weak party such as the client incurs loss that requires compensation from the banks (Shiyuti et al., 2012). These issues should be addressed by Islamic banks, regulators, and relevant authorities, to align *Ijarah*-based financing contracts with *Sharī‘ah* principles and facilitate fair wealth and income distribution.

4.3 The Short-run Model and the Error Correction Term (ECT)

Table 6 reports the short-run and the error correction term (ECT) results. Similar to the long-run estimation results, the MUR, MUD, IST, BBA and other Islamic-based financing contracts exhibit significant negative relationships with the Malaysian GINI Coefficient index. In other words, MUR, MUD, IST, BBA and other Islamic based financing contracts achieved equitable income and wealth distribution in Malaysia. However, the results in Table 6 indicate that in the short run, the MUS and IJR contribute positively to inequity of income and
wealth distribution in Malaysia. Particularly, the *Ijarah*-based financing contract contributes to increasing the gap of income and wealth inequity distribution at 1% significance. These results suggest that increasing financing using the MUS and *Ijarah*-based financing contracts will lead to increased poverty gap as the bankers become richer while society becomes poorer. In addition, the estimated coefficient of the Error Correction Model (ECM) in Table 6 shows a negative sign with the value of -2.845947 (more than unity) at a significance level of 1%. This suggests that the very rapid speed of adjusting from the long run to the equilibrium point (Shin & Smith, 2001).

Table 6: The Short-run Coefficients Estimation using the ARDL Approach, ARDL (2, 1, 1, 1, 1, 1, 1, 1) Selected Based on AIC Criterion, Dependent Variable is Malaysian GINI Index

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(M-GINI(-1))</td>
<td>0.912853***</td>
<td>0.0691</td>
<td>13.21068</td>
<td>0.0057</td>
</tr>
<tr>
<td>DLOG(MUR)</td>
<td>-0.261491***</td>
<td>0.013304</td>
<td>-19.65479</td>
<td>0.0026</td>
</tr>
<tr>
<td>DLOG(MUS)</td>
<td>0.005131</td>
<td>0.008097</td>
<td>0.636372</td>
<td>0.5911</td>
</tr>
<tr>
<td>DLOG(MUD)</td>
<td>-0.079879***</td>
<td>0.005526</td>
<td>-14.45577</td>
<td>0.0048</td>
</tr>
<tr>
<td>DLOG(IST)</td>
<td>-0.072533**</td>
<td>0.009475</td>
<td>-7.655428</td>
<td>0.0166</td>
</tr>
<tr>
<td>DLOG(BBA)</td>
<td>-0.100992**</td>
<td>0.012442</td>
<td>-8.117142</td>
<td>0.0148</td>
</tr>
<tr>
<td>DLOG(IJR)</td>
<td>0.479884***</td>
<td>0.030106</td>
<td>15.93967</td>
<td>0.0039</td>
</tr>
<tr>
<td>DLOG(OTHERS)</td>
<td>-0.142054**</td>
<td>0.017043</td>
<td>-8.335158</td>
<td>0.0141</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-2.845947***</td>
<td>0.121089</td>
<td>-23.50286</td>
<td>0.0018</td>
</tr>
</tbody>
</table>

The ***, ** and * denotes for significance level at 10%, 5% and 1% respectively

4.4 Diagnostic Tests Results

The residual of the ARDL (2, 1, 1, 1, 1, 1, 1) model was tested to verify whether the it was free from serial correlation, had no heteroscedasticity and the error term was normally distributed. Table 7 presents the diagnostic tests results and showed that the ARDL (2, 1, 1, 1, 1, 1, 1) model under study is free from serial correlation and heteroscedasticity.
Table 7. Diagnostic Tests Results

<table>
<thead>
<tr>
<th>Test Statistics</th>
<th>LM Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Serial Correlation</td>
<td>$F - Statistic(1,1) = 3.611478 [0.3084]$</td>
</tr>
<tr>
<td>B: Heteroscedasticity</td>
<td>$F - Statistic(16,2) = 0.446292 [0.8613]$</td>
</tr>
</tbody>
</table>

Figure 2 further supports that the error term of model residual is normally distributed. This is evidenced by Jarque-Bera statistical value of 2.438940 with [p-value = 0.295387] that is more than the critical value at 1% significance.

Figure 2 Histogram of Residuals and Jarque-Bera Test Result

The cumulative sum (CUSUM) and cumulative sum of squares (CUSUMQ) tests were utilized to verify if the ARDL (2, 1, 1, 1, 1, 1, 1, 1) model was stable. Figures 3 and 4 plot the CUSUM and CUSUMQ graphs from a recursive estimation of the model. The graphs exhibit the stability of the coefficients structure over the timeframe of the study, since the CUSUM and CUSUMQ graphs are within the critical boundaries of the 5% level of significance.

Figure 3 Plot of Cumulative Sum of Recursive Residuals
5.0 Conclusion

Using the bounds test technique and ARDL model, this research examined the long- and short-run relationships between Sharī‘ah-based financing contracts, namely Murabahah (MUR), Musharakah (MUS), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), Ijarah (IJR), and other Sharī‘ah contracts with the Malaysian GINI Coefficient index, to evaluate whether the current Islamic financial practices in Malaysia achieve equitable income and wealth distribution. The analysis indicated that Murabahah (MUR), Mudarabah (MUD), Istisna (IST), Bai Bithaman Ajil (BBA), and other Islamic Sharī‘ah-based financing contracts share a significant negative long-run relationship with the Malaysian GINI Coefficient index. This indicates that continuing to practice these Sharī‘ah-based financing contracts in Islamic banks in Malaysia will achieve the equitable income and wealth distribution. Conversely, the findings indicate that Musharakah (MUS) and Ijarah (IJR)-based financing contracts had a positive relationship with GINI coefficient index. This implies that these Sharī‘ah-based financing were not achieving the equitable income and wealth distribution in Malaysia. In other words, Musharakah (MUS) and Ijarah (IJR)-based financing contracts do not favor the Malaysian community and were designed to benefit only the banking sector.

The process of Malaysian banks in selecting business partners in Musharakah-based financing favored financing big corporations with good reputations, strong financial position and business skills.
They ignored the majority of requests and demands by small and medium-sized entrepreneurs who lack capital and are still in the initial phases of their enterprises because the small and medium entrepreneurs do not have a long business track record or strong credit standing. Therefore, in order for Islamic banks to achieve fair distribution of income and wealth and uphold the concept of justice, they have to contribute to the community by financing genuine entrepreneurs requiring capital to grow.

The key issue in *Ijarah*-based financing was the unjust terms of ownership transformation, maintenance responsibility, default penalty, and the issue of legal treatment. However, the issue of ownership transformation was considered one of the major issues in *Ijarah*-based financing contracts, whereby the transfer of asset title to the lessees once the asset has depreciated present is riskier, as well as transfer the responsibilities to the lessees before asset title transformation is another injustice and hazard moral. Thus, to solve the problem, Islamic banks, as the lessor, must fully recognise the ownership of the assets during the period of leasing. This full recognition entails many consequences. The asset must be recorded in the bank’s balance sheet statement, the asset depreciation should follow reasonable and technically agreeable approaches, and banks (lesser) should be responsible for all expenses, risks and rewards in relation to the ownership. These expenditures comprise maintenance expenses, regular services, spare parts replacement, insurance (Islamic *takaful*) contribution, road tax, etc. (Shiyuti et al., 2012). On the other hand, the client as the lessee will be responsible for the costs related directly to the use of the asset (Shiyuti et al., 2012). Thus, Islamic banks still have the chance to uphold the concept of justice for income and wealth distribution by offering *Sharīʿah*-based financing that reflects the concept of profit and lost sharing. The empirical findings of the study will provide valuable input for policymakers, particularly central banks and bank management to evaluate the current practice of Islamic finance and correct its shortcomings to uphold the concept of justice for all.

One of the significant limitations that cannot be ignored is its sole focus on the *Sharīʿah*-based financing contracts practiced by Islamic banks in Malaysia. The findings and policy suggestions of this
study, therefore, will be beneficial only for the community and policymakers in Malaysia. Put differently, the findings cannot be generalized to other Muslim countries. Thus, broadening the scope of this research to encompass the operations of the Islamic banks worldwide will offer a palpable and more substantial basis to evaluate whether the Islamic financing system and its practices provide equitable income and wealth distribution.

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