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EXPLORING SHARIAH-COMPLIANT MARKET BENCHMARK ALTERNATIVES FOR ISLAMIC FINANCIAL INSTITUTIONS

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Abstract
Islam is the second largest religion with 1.8 billion Muslim population making almost 24% of the world population. Muslim world, with its energy rich resources especially middle east countries, contributes considerably in world GDP. Islam provides complete guide with respect to Islamic Finance. Muslim world, despite being significant contributor, couldn't give worldwide recognition to Islamic finance. Islamic Interbank Benchmark Rate was introduced through collective efforts of six Muslim countries in 2011 through Thomas Reuters to meet the shariah compliant requirements of Islamic countries. However, it couldn't get due acceptance and becomes dormant in 2016. Islamic financial institutions have been using Libor as benchmark which is being phased out. The present study is aimed at determination of co-integration relationship between Islamic benchmark rates with conventional benchmarks. Auto Regressive Distributed Lags methodology was employed to ascertain the long-term co-integration between the variables of interest. Present study was able to identify long term co-integration between IIBR, Dow Jones Islamic market returns, London Interbank offer rate and daily gold market returns. Phasing of Libor is providing a lucrative opportunity for the Muslim countries to revive IIBR or adopt new benchmarking mechanism free from interest (Riba).

1. Introduction

The basic principles of Islamic finance have been in practice since the inception of Islam. However, the formal adoption of modern Islamic banking and finance commenced in the last century. The core idea behind the modernization of Islamic banking system is to bring it in line with the true teachings of Islam and removal of contradictory principles lying in the traditional financial systems (Laldin, 2016). The differentiating feature of Islamic finance is Riba free and equity-based transactions, asset's backed financing, prohibition of Gharar and speculation, assets backed transactions and investment of money in halal businesses. According to teachings of Islam Riba is a sinful act because it gives rise to many evil activities like gambling and increases inequality in society and there are many verses of Quran that pour light on this topic so that mankind can protect themselves from the evils of Riba (30:39, 4:161, 3:130, 2:275-278). This is the reason Islamic law recognizes money as a medium of

exchange but not as a medium of trade as it prohibits the money-on-money transactions (Mubarik, 2022). Also, conventional stock performance metrics fail to fully capture Shariah compliance, highlighting the need for specialized market benchmarks that incorporate both financial returns and Islamic principles (Bayram et al., 2023).

A rapid growth in adoption of Islamic finance by Muslim countries has been observed during last few decades. There are more than 1100 Islamic financial institutions operating globally which are making Islamic finance more competitive. Islamic financial institutions need to innovate and introduce new financial products to attract new business and capitalize on opportunities available in the market (Tlemsani & Nuaimi, 2018). The concept of Riba free Islamic banking has been adopted worldwide since early 20th century as many non-Muslim institutions have showed trust in Islamic finance being it more secure than conventional one. There has been a 10% - 12% rise in Islamic financial assets according to a report published in 2018. Furthermore, Islamic assets experienced an enhanced capital growth rate of 6% in year 2017. According to statistics in 2017, 505 Islamic banks are working worldwide. From global perspective, Islamic financial assets are commonly comprised of Islamic banking coupled with 207 windows, Sukuk, takaful and Islamic equity funds.

IIBR (Islamic Interbank Benchmark Rate) came into existence in 2011 through concerted efforts of 17 banks from six Islamic countries incl KSA, UAE, Qatar, Bahrain, Pakistan and Kuwait in conjunction with Thomas Reuters. Being denominated in US Dollars, the benefit of this interest free instrument is to make Islamic financial products more easily integrated in global financial system, to ensure uniformity among all the contributors and help all the contributing countries to attract global investment thereby promoting Islamic capital market (Nechi & Smaoui, 2018). Eradication of interest-based benchmarks is the goal of Muslim jurists under the light of Islamic teachings. The expected cost/ return of short-term interbank offer rate or market funding rate is used as a basis for computation of Islamic Interbank benchmark rate (Omar, et al., 2010).

LIBOR (London interbank offered rate) benchmarks almost 350 trillion USD of financial contracts worldwide as it is most famous interest-based benchmark used throughout the world. Islamic financial institutions also use LIBOR as benchmark rate with a debt instrument worth 2 trillion USD (Jaffar, 2018). According to reports, the London interbank offer rate (LIBOR) has partially phased out in December 2021, while complete phasing out is expected by June 2023. Phasing out of LIBOR is providing a best chance for IIBR to strengthen its foundations in global financial system with its worldwide assets worth trillions of Dollars.

The aim of current research study is to investigate and make a comparison of impact of interest free IIBR along with premier Dow Jones Islamic Market Index on global Islamic market index returns as that of interest-based LIBOR and other conventional benchmark returns. If co-integration relationship exists in the results, then interest free IIBR, DJ IMI or Daily Gold price market returns can be seen as a replacement of interest based conventional benchmark rates especially for Islamic financial institutions worldwide.

The present study tends to examine empirically the co-integration relationship of London Interbank Offer Rate; daily gold price market returns and Islamic Interbank benchmark rate with Dow Jones Islamic market index returns using the corresponding data ranging from June 2012 to Dec 2021. Dow Jones Islamic Market index has been opted for employment being premier Islamic Market index since 1999. It was launched in Bahrain and constitutes 44 countries; having 95% of shariah compliant assets.

Even though Islamic finance has captured an ample amount of support and interest yet there have been number of criticisms regarding its dependence on conventional benchmarking rates, imperfection in Islamic financial credentials and its inability to detach from convention financial systems. The existent study is aimed to add up current knowledge base by providing better understanding of interest free IIBR as an alternative benchmark rate to Islamic Financial

institutions instead of conventional LIBOR and its equivalents. This study employs correlational analysis and Auto Regressive Distributed Lag Model to ascertain co-integration relationship among London interbank offer rate, Islamic interbank benchmark rate, daily gold market returns and DJ Islamic Market Index Returns. In retrospect, various studies were either limited to theoretical perspectives (Jaman, 2011; Selim, 2008) or employed empirical tests to various interbank offer rates i.e. Interbank money rate, ON policy rate and KLIBOR in order to carry out shariah compliant transactions in Islamic countries (Hassan, 2009; Khan, 2010) and finding co-integration relationship among IIBR, LIBOR and DJ Market Index Returns using a limited dataset (Mubarik, 2022). The documented presence of calendar and seasonal anomalies in interday stock returns, as evidenced in studies on the Pakistan Stock Exchange, has direct implications for Islamic financial markets where return dynamics are shaped by Shariah screening and investment constraints (Rehman & Gul, 2025).

2. Literature Review

Islamic financial institutions are increasingly exploring alternative benchmarks for Shariah-compliant markets, influenced by various emerging models and technological innovations. Traditional stock performance measures do not adequately address Shariah compliance, necessitating unique market benchmarks that integrate both financial return metrics and adherence to Islamic principles (Bayram et al., 2023). For instance, the Black-Litterman model has been adapted to create Shariah-compliant portfolios that effectively manage Shariah non-compliance risk (Bayram et al., 2023).

Advancements in Islamic fintech offer innovative solutions such as peer-to-peer (P2P) lending and robo-advisory services that align investment strategies with Shariah guidelines, broadening the investment landscape for institutions (Bin Aqdas, 2023; Kılıç, 2023; Takidah & Kassim, 2022; Ur Rehman et al. 2024). Moreover, studies indicate that Shariah-compliant firms exhibit performance patterns influenced by their capital structures, which are governed by Islamic finance principles (Brahmana & Kontesa, 2023; Akbar et al., 2022). Thus, the development of these benchmarks enhances financial performance while ensuring compliance with Shariah norms, providing a holistic approach for investors in the Islamic finance ecosystem.

In the recent years Islamic finance has gained popularity because of upcoming focus of professionals, policymakers and educators in this field. It has emerged as a mainstream financial market landscape hence, there is a need for its own shariah compliant benchmark offer rate for its financial institutions that would help in decoupling from existing conventional benchmark rate like LIBOR etc. (Khan, 2010). The literature pertinent to benchmark offer rate for financial institutions and its relationship with exiting conventional benchmark rates is still at its embryonic stage. The focus of the literature has been on whether Islamic benchmark rate was able to distinguish itself from conventional benchmarks or not. An investigation of relationship using Granger causality measure between the term deposits of various maturities of conventional and Islamic banks showed that Islamic financial institutions used conventional deposits rates as benchmark for determining their own deposit rates (Kaleem & Isa, 2003). Umer and Sahatah (2000) proposed that the dividends distributed from Islamic banks to their depositors could form Islamic benchmark and it would replace the interest rate with a profit rate thus minimizing the doubt and risk, plus getting a mathematical index would be beneficial as compared to conventional one.

The relationship between Islamic investment rate and conventional deposit rates has been established in a study carried out in Malaysia which shows that only a small portion of Islamic bank financing is purely profit and loss sharing. Rest of the financing is interest based and pegged with conventional benchmark rates. It further elaborated the close connection between Islamic deposit rate and interest-based deposit rates (Chong & Liu, 2009). Another study done by Chong and Liu (2009) shows that much of efforts were made to set a new Islamic benchmark but

none of them could be fruitful. According to Ayub (2007) benchmark rates used by Islamic banks are closely attached with the conventional bank interest rates. Another study employed various econometric techniques to test the co-integration relationship and found significant relationship between conventional stock market returns and Islamic stock market returns (Ajmi, et al., 2014).

Fitri (2007) tried to propose the pricing model of Ijara along with Murabahah as per suggestions proposed by a Malaysian origin Islamic financial organization. Author also proposed reasonable benchmark rates for Islamic and conventional banking system in Malaysia. Usmani (2007) made a useful contribution in the existing research by introducing the relatively newer concept of making investment in assets' powered devices. As per the author, banks should maintain different pool of assets; a shared pool of asset-based instruments like Musharakah and Ijarah. He further added that banks should keep most of their assets in solid form that can be traded at their net value and can be useful for overnight trading platforms. Banks that have more liquidity will buy these assets and can sell them when they need them. Through this method, an interbank market can be formed and this financial institution can use the net worth of these assets as a benchmark or indicator to calculate their profits/ returns.

Hassan (2009) proposed various alternatives interest rates i.e. Interbank Money Market, KLIBOR and Overnight Policy Rate (OPR). He suggested that OPR is a suitable option when used in light of Shariah. Shubber and Alzafiri (2008) conducted a study in which they suggested that CoC should be used by Islamic banks and deposit accounts are part of profit and loss sharing instrument and are not a liability for Islamic finance. Also, authors found high correlation between bank's market value and size of deposit in Islamic banks. In Selim,2008 studied theory-based aspects of Islamic finance which rests its basis on the principles of Musharakah with respect to the capital asset pricing model (CAPM). In this study he concluded, financing that is based on musharakah, experiences comparatively a lower risk once compared with the investments based on market fundamentals. Covrig et al (2004) proposed that interbank benchmark rates depend on the difference of two factors, market-wide factor and intrinsic bank risk.

Ali and Azmi (2014) proposed the Tobin's Q2 model to ascertain the cost of capital and its usage as an alternate benchmark for pricing financial assets. After testing this model on various Malaysian firms, they stated that model of cost of capital can be more fruitful in the economy with zero interest rate. In contrary to this, Liang et al (2013), suggested model of CoC to measure banks' performance through considering the multiple roles of their regional branches whereas Choi and Han (2013) used Q2 model to restructure firm's value and to elaborate investment opportunities.

Another study was carried out by Omer et al (2010) with the purpose to investigate the Islamic pricing benchmark that should be practical and could be used as alternative to market interest rates. The authors used the weighted average of various sectoral benchmarks for modeling and analysis and came up with the conclusion that it is important for Islamic finance to come up with an alternate pricing benchmark to ascertain cost of capital in order to ensure its independency from conventional financial benchmarks.

Ahmed et al. (2018) attempted to consider the Islamic pricing benchmark in lieu of market interest rates as an Islamic financing benchmark rate. Islamic pricing benchmark model and the London Interbank offer rate was used for analysis. They suggested possibility of using IPBM model to take on the transactions carried out in Islamic financial system. With doing so, the author expects freeing Islamic finance from conventional interest rate benchmarks.

Azad et al. (2018) used the data from 2012 to 2015 to ascertain the linkage between IIBR and LIBOR. An active relationship between the both rates was observed by the authors in term of long- and short-term perspective.

Nechi & Samaoui (2019) carried out the behavioral comparison of conventional interbank offer rate with IIBR. Data from five different countries was used and various econometric techniques were used to ascertain the relationship. The econometric techniques include VAR model, Granger causality, co-integration analysis and

correlation analysis. The test results indicated that there exists a long-term equilibrium relation between IIBR and existing interbank offer rate in Middle East countries like Saudi Arabia, UAE and Bahrain but no such relationship was observed in Qatar and Kuwait.

Tlemsani I. (2020) attempted to reveal and found that significant negative correlation relationship existed between IIBR and other conventional interbank benchmark rates like LIBOR, KLIBOR and conventional rates of GCC countries etc. He put new insights and declare IIBR as an independent shariah compliant tool. In a recent study, long term co-integration relationship was found between Dow Jones Islamic market returns and IIBR along with conventional interest like London Interbank Offer Rate while using the data from November 2011 to April 2016 through Johansen and Julesius (1990) co-integration technique (Mubarik, 2022).

Government taxation and Shariah-compliant benchmarks shape financial policies by replacing interest-based systems with ethical profit-sharing models, affecting business operations (Munir et al., 2022). These impact socio-economic factors by promoting financial inclusion, reducing income inequality, and fostering sustainable economic growth (Alam et al., 2024; Rehman et al.,2024; Mahmood et al., 2024).

3. Research Methodology

A deductive grounded theory approach along with the pragmatist philosophy has been adopted to ascertain the relationship between the Islamic market rates i.e. Dow Jones Islamic market index, IIBR and conventional benchmark rates Libor and daily gold market returns. All statistical tests have been performed on Stata software and secondary data has been used to ascertain the required relationships. Two models with a different data set have been used for ascertaining the relationship among the shortlisted indicators. The secondary data for ascertaining the co-integration relationship between IIBR, DJIMI and LIBOR is used for the period from last quarter of 2011 to 2nd quarter of year 2016 because the IIBR has been dormant since then. The second model used the data of Dow Jones Islamic market index; daily gold market returns and LIBOR from June 2012 to Dec 2021 to establish their long-term co-integration relationships.

The daily closing prices of Dow Jones Islamic Market Index were collected from their website for the time period under consideration. This daily frequency period formed the basis of our sample. Dow Jones Islamic Market Index was selected being the premier Islamic market index for the Muslim world. The data of DJ IMI was collected from their website. Other global indicators have been chosen for the purpose of establishing co-integration relationship. The data of all other indicators including IIBR, LIBOR and daily gold market returns have been collected from their respective websites and renowned data bases incl NASDAQ etc.

The variations in the expected market returns have been conceptualized by Mandelbrot (1963) and Fama (1965). Extensive literature encapsulating the stock market returns' volatilities and adjustments have been theorized by many researchers i.e. CAPM by Sharpe (1964), EMH by Fama (1970), APT by Ross (1976) and (Aqdas, Munir, & Mangi, 2021).

Research study will employ two different methods to ascertain the relationships between the indicators:-

a. Correlational analysis, a statistical evaluation method to determine the strength of relationship between two continuous variables. We employed this method to ascertain the relationship between Islamic benchmark indicators with conventional benchmark indicators.

b. Co-integration analysis, a statistical model based on Johansen (1990) co-integration methodology was intended to be employed to determine the co-integration relationship among the time series variables. However, the results of unit root test to ascertain whether the data is stationary at level or 1st difference. Johansen co-integration model requires all variables to be stationary at level one I(1). Considering the results of Unit Root Test where the variables of interest are of mix order of integration, Auto Regressive Distributed Lag model is being employed to ascertain the long run co-integration among

variables. ARDL model is basically an Ordinary least square based model which is equally useful for non-stationary as well as time series with mixed order of integration. ARDL model determines optimal lags for each variable to capture the data generating process for funneling general to specific modelling framework. Statistical equation of standard ARDL model can be expressed as under:-

$$\Delta y_t = \alpha_0 + \sum_{i-1}^{p} \beta\, i\Delta y_{t-i} + \sum_{i-1}^{p} \delta\, i\Delta x_{t-i} + \sum_{i-1}^{p} \varepsilon\, i\Delta z_{t-i} + \lambda_1 y_{t-1} + \lambda_2 x_{t-1} + \lambda 3 z_{t-1} + u_t$$

Where first half of the equation involving βi , δi and ε_i shows short run dynamics of the model whereas second portion involvingλ_1, λ_2 and λ_3 represents the long-term co-integration. The null hypotheses for no long run co-integration are as follows H_o= λ_1= λ_2 = λ_3 = zero. The decision for rejection of null hypothesis is based on value of F-stats and t-stats. F-test>UCB (upper critical boundary) or t-test<LCB (lower critical boundary) lead towards rejection of null hypothesis. Δ symbolizes the change in variable, and lag information criterion is indicated by $t-i$.

The time series data will be tested for stationarity through Unit Root Test (Dickey Fuller/ Augmented Dickey Fuller test).

The daily Islamic market returns will be calculated by employing the mathematical formulas on daily closing prices. The log of daily closing prices was taken and then differenced for returns calculations as under:-

$$Rm = \ln(Pt) - \ln(Pt-1)$$

Where Rm is the market returns, $\ln(Pt)$ is the natural log of market price on any day and $\ln(Pt-1)$ is the natural log of market price for preceding day.

4. Empirical Results and Discussion

Descriptive Statistics. Table 1 shows summary statistics of variables of interests. The extremely low mean value of Dow Jones Islamic market returns i.e. 0.022% shows its non-competitiveness with respect to conventional market returns. This also indicates that investors are more inclined towards the conventional markets to earn higher returns. This indicates that investors are more inclined towards investment in conventional banks. Islamic Interbank offer rate showed the mean returns value of 0.19% which is quite higher and provide a much better option to be chosen as a benchmark rate for the Islamic market index. The mean returns of LIBOR stand at o.142%. However, Model -II shows the statistics with mean value of DJ IMR as 0.048%, DGMR as 0.011% and Libor as 0.66%. The values of skewness, and kurtosis in table 1 shows that data is non-normal and leptokurtic. The awareness in this regard needs to be created among the Muslim world to be more focused in investing in Islamic market whose market capitalization is in multi trillions of dollars and likely to escalate at 10-12 percent / year in future to come.

Table 1 : Descriptive Statistics

	Model 1			Model 2		
Variables	DJ IMR	IIBR	LIBOR	DJ IMR	DGMR	LIBOR
Mean	0.0225	0.1926	0.1421	0.0487	0.0113	0.6659
Std Dev	0.7023	0.1119	0.0653	0.8606	0.988	0.782
Skewness	-0.257	7.550	2.66	-0.855	-0.401	1.05
Kurtosis	5.406	68.67	9.83	21.064	10.14	2.576

DJIMR is the abbreviation for Dow Jones Islamic Market Returns, IIBR indicates Islamic interbank Benchmark Rate, DGMR is the Daily Gold Market returns and LIBOR shows London Interbank Offered Rate

Correlation Analysis. The correlation test is performed to ascertain the degree of association or relationship among the variables. The results of correlations among the variables in both models is proffered below:-

Table 1 : Correlation Test

Model 1				Model 2			
Variables	DJ IMR	IIBR	LIBOR	Variables	DJ IMR	DGMR	LIBOR
DJ IMR	1			DJ IMR	1		
IIBR	-0.012	1		DGMR	0.0061	1	
LIBOR	0.0077	0.3726	1	LIBOR	0.0278	-0.022	1

Results show weak correlation among the variables of interest in both models with different data set. A comparatively stronger correlation of 37.26% exist between Islamic Interbank benchmark rate and Libor. The DJ IMR is negatively correlated with Libor as per the results of Model-I. However, negative correlation is observed between Daily Gold Market returns and Libor in Model-II. Rest of the co-relations among the variables are positive, though very weak.

Co-integration Analysis. To ascertain the stationarity of data, unit root analysis has been carried out via Dickey Fuller/ Augmented Dickey Fuller Test. Unit root test is a statistical procedure to determine the stationarity of time series data. The results are reported in table 2. Unit root analysis is a pre-requisite to perform Co-integration test.

Table 2 : Unit Root Test

	Model 1			Model 2		
Variables	DJ IMR	IIBR	LIBOR	DJ IMR	DGMR	LIBOR
Level	-28.556 (0.000)	-26.93 (0.000)	0.719 (0.472)	-49.89 (0.000)	-52.116 (0.000)	-0.632 (0.528)
1st Diff			-31.975 (0.000)			-49.075 (0.000)
Order	1(0)	1(0)	1(1)	1(0)	1(0)	1(1)

Johansen co-integration tests require data to be non-stationary at integrated level zero I(0) and stationary at integrated level one I(1). After the conduct of unit root analysis, it is quite evident that in model-I, two of the variables i.e. DJ IMR and IIBR is stationary at level I(0) while Libor is stationary at level one I(1). In Model-II, DJIMR and DGMR is stationary at level I(0) and Libor is here too stationary at level one I(1). The stationarity of data at various levels restricts us to use Johansen co-integration test. Therefore, in order to determine long run co-integration among variables, Auto Regressive Distributed Lag Test, which is immune to mix combination of variables with respect to stationarity of data at various levels I(0) and I(1), has been performed. The results of ARDL, Bounds Test is shown at Table 3a for Model-I and 3b for Model-II.

All the three variables in model-I have been dependent variables one by one. The F-statistics and t-statistics values of DJ IMR and IIBR lie outside the critical threshold values at 1% critical level which show strong co-integration over long run. However, F-stats and t-stats of Libor, once being dependent variable, show no co-integration over long run. The R-square values of 1st two models (DJ IMR and IIBR being dependent variable) show 42.48% and 46.94% of variation in dependent variable as explained by independent variables as explained by ARDL error correction

model. The results are quite encouraging for Islamic finance being competitive with LIBOR. IIBR being based on similar denominated currency of USD as of conventional interest-based benchmark rate and added feature of interest free transactions make it an attractive commodity for an international clientele base.

Table 3a: Auto Regressive Distributed Lags – Bounds Tests (Model-I)

Dependent variable	AIC Lags	Statistics		R^2	Decision
		F-Stats	t-Stats		
DJ IMR	4	101.735	-17.466	0.4248	Co-integration
IIBR	4	62.006	-13.638	0.4694	Co-integration
LIBOR	3	0.206	-0.356	0.033	No Co-integration
Critical Values @ 1%: F Stats (LB;5.15 : UB;6.36) t-Stats (LB;-3.43 : UB;-4.10)					

Table 3b shows the Auto Regressive Distributed Lags – Bounds Tests results of Model-II. The F-statistics and t-statistics values of DJ IMR and DGMR lie outside the critical threshold values at 1% critical level while F stats value of Libor for this model is significant at 10% critical value. The results of 1st two models (DJ IMR and DGMR being Dependent Variables) shows long term co-integration. R-squared value of these two models shows 52.2% and 52.92% respectively, explanation of the models. The f-stats value of Libor, though significant at 10%, still shows a weak co-integration along with low R-squared value.

Table 3b: Auto Regressive Distributed Lags – Bounds Tests (Model-II)

Dependent variable	AIC Lags	Statistics		R^2	Decision
		F-Stats	t-Stats		
DJ IMR	4	225.756	-26.004	0.5220	Co-integration
DGMR	1	898.632	-51.921	0.5292	Co-integration
LIBOR	4	4.73	-0.715	0.0369	$ Co-integration
Critical Values @ 1%: F Stats (LB;5.15 : UB;6.36) t-Stats (LB;-3.43 : UB;-4.10) $ Critical Values @ 10%: F Stats (LB;3.17 : UB;4.14)					

Considering the wholesome view of both models, the overall results are quite encouraging for Islamic finance being competitive with conventional benchmarks like Libor. Dow Jones Islamic Market Returns and Islamic Interbank Benchmark Rate (dormant since 2016) are providing the lucrative opportunity for the Islamic financial institutions be adopted as a benchmark rate. As Libor is being phased out completely in 2023, it is high time for the Islamic countries to re-activate IIBR and adopt it as benchmark rate for financial institutions instead of resorting to interest based conventional benchmarks i.e. Libor. The results of daily gold market returns offer another opportunity for the Islamic countries to be chosen as benchmark for establishing their own offer rate.

In 2017, total of 8.3% increase was observed in Islamic assets as Islamic finance has expanded itself into various components like capital market, sukuk, takaful, finance technology, social welfare and microfinance. But from all of above sukuk has gained the global attention because of its asset backed principle, irrespective of interest based conventional bonds. Initiation of mobile banking and opening of digital subsidiaries internationally has emerged as a blessing for Islamic banking and financial institutions. More over the expiration of LIBOR is a plus point for Islamic finance industry to launch IIBR world widely.

5. Conclusion

The focus of current study has been to evaluate, scrutinize and demonstrate the long run co-integrated relationship between Islamic benchmark rate i.e. Dow Jones Islamic market index and Islamic interbank benchmark rate with conventional benchmarks like Libor, Gold market indices etc. The present study employed two different models with different set i.e. model-1 considered the data of variables (DJ IMR, IIBR & Libor) from last quarter of 2011 to 2nd quarter of year 2016 and model-2 used the data of variables (DJ IMR, DGMR & Libor) from June 2012 to Dec 2021. This study used the secondary data and employed Auto Regressive Distributed Lags technique to measure the long-term co-integration among the variables of interest. This study was able to establish long run co-integration exists between DJ Islamic market returns, IIBR along with LIBOR. Similarly model-2 also found long term co-integration among DJ IMR, DGMR and LIBOR, giving a significant indication to use Islamic benchmark rates for its financial institutions. This study is of much significance because LIBOR has recently partially phased out in 2021 with complete phasing out expected in 2023 so there will be utmost need of new suitable benchmark for global financial structure. So, by making proper efforts IIBR or DJ IMR can be introduced globally as there are many advantages of Islamic benchmarks over LIBOR, most important of them being Riba free transactions and assets backed financing.

5.1. Future Implications

Islamic countries play an important role in the international finance owing their energy rich resources meeting global energy demands. Islamic finance during the last two decades have made huge strides in terms of its shariah compliant assets. Benchmarking mechanism for their financial institutions is need of time in order to free themselves from conventional interest-based systems. The present study has considered Islamic interbank benchmark rate, Dow Jones Islamic market rate and gold market indices as probable benchmarks to be considered for future. However, if not these, efforts are always invited to develop new benchmarking mechanisms for Islamic financial institutions.

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