AN ANALYSIS OF PROFITABILITY DETERMINANTS OF ISLAMIC BANKS: EMPIRICAL STUDY OF MALAYSIA VS PAKISTAN

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ABSTRACT

The credit crisis of 2007-09 opened the unique opportunities for Islamic banks to emerge globally. Malaysia was one of the countries that were least affected by the crisis. Many analysts argued the reason for this is the early growth of Islamic finance. Malaysia has implemented the concept of Islamic banking in 1983. On contrary, Pakistan materially implemented this concept in early 2000. However, parallel Islamic banking industry is functioning in both the countries along with the conventional banks. The core objective of the study is to compare profitability determinants of Islamic banks working in Malaysia and Pakistan. The data was collected from Financial Statements of 8 full-fledged Islamic banks in Malaysia and 4 full-fledged Islamic banks in Pakistan for the period (2011-2017). Pooled OLS, Fixed effect, and Random Effect Panel regression analysis have been carried out to test the hypothesis and to compare the profitability determinants of both countries. Internal factors like Liquidity, Leverage, Efficiency, Size, and Asset quality were regressed against profitability. In addition to this, GDP per capita and inflation are also considered as macroeconomic factors in this study. However, the results show that macroeconomic factors, liquidity, efficiency, and size of Islamic bank affect the profitability of Islamic banks of both regions in the same manner. While asset quality and leverage is not a good predictor of profitability of Islamic banks in Pakistan due to developing phase of Islamic banking.

Keywords - Islamic Banking, Financial crisis, Pakistan, Malaysia, Profitability

Introduction

The banking activities based on Islamic principles has grown tremendously from last four decades, extensively reaching global markets with an increase in public interest on Sharia'h compliant products. US Subprime mortgage crisis of 2008 led many financial institutions and investors into insolvency, this downturn did not only affect US economy but many other nations as well (Lau, 2008). Credit crisis affected the global financial sector so badly that it led many organizations to either go insolvent or to sell their shares to general public (Shah, 2009). There is estimation that more than 80% of the banks were strangled with this Sub-prime mortgage crisis and a great number of financial instruments were affected with this, repayment of the loans and debts were detained due to stunted growth by early 2009 (Shah, 2009).

Mokhtar, Abdullah, and Alhabshi (2008) studied that Islamic banks follow different contracts, rules, and regulation in their normal course of business, due to this fact Islamic banks were least affected by the credit crunch as opposed to the conventional counterparts. Islamic banks work risk sharing basis, where mutually, the parties share both the loss and profit in a predefined ratio, as a result of this fact practicing Islamic banking has become common in many countries. Ahmad and Hassan (2007) showed that Islamic banks are capitalized in a better way as opposed to the Conventional banks. Islamic banks appeared to be more stable in financial stability perspective (Čihák & Hesse, 2010). In agreement with Lahem (2009), the credit crunch gave Islamic banks the biggest opportunity to grow all around the world.

Islam prohibits giving and taking Interest, this point distinguishes Islamic banks from conventional banks. All the operational activities in Islamic banks must be conformed to Sharia'h principles to implement Islamic principles in true spirit. Further, Islam not only prohibits interest on the loan but also Gharar (uncertainty) and gambling. The essential part of this system is to ensure that all financial transactions and products are backed by real assets. Beck, Demirgüç-Kunt, and Merrouche (2013) also suggested that Islamic banks are less concerned in doing traditional banking business. According to Alkassim (2005), Islamic banks are involved in commercial as well as investment banking functions, they don't get involved in money lending business. Islamic financial institutions work under asset-based financing activities that mainly focus on risk sharing. conversely, conventional counterparts are engaged in debt based financing (Dridi & Hasan, 2010).

If an Islamic bank is involved in real asset-based financing, then it must be more financially stable with higher profitability, hence this has been studied by many researchers. Beck et al. (2013) posited that contrary to conventional banks, Islamic bank can better manage their costs particularly in a market where the Islamic banks are more than the conventional counterparts. However, another study showed that no evidence have been found to differentiate the efficiency of Islamic and conventional banks (M. K. I. Bader, Mohamad, Ariff, & Shah, 2008). Samad (2004) argued that Islamic banks are less risky and also more profitable than conventional banks. Hanif, Tariq, Tahir, and Momeneen (2012) considered a sample of 22 Islamic and conventional banks to measure the comparative performance and liquidity for the banks working in Pakistan, as per results conventional banks are stronger in terms of performance and liquidity. Ansari and Rehman (2011) exhibited that Islamic banks can increase its profitability, market share and deposit position better than conventional counterparts.

Existing studies examining the Islamic banks' profitability can be grouped in two paradigms. The first studied the Islamic banks' performance using financial ratios (A. Bashir, 2000; Hassan & Bashir, 2003; Samad, 2004). While the other one studied the comparative performance of Islamic and otherwise (Al-Jarrah & Molyneuxa, 2003; Al-Shammari, 2003; M. Bader, Shamsher, & Taufiq, 2007; Hussein, 2004). However, these studies do not provide satisfactory evidences of comparative study of Islamic banks working in an environment where Islamic benchmark (IIBOR) is not implemented.

The core objective of the research is to make the comparison of profitability determinants of Islamic banks working in both developed and under developed Islamic banking markets. Performance of an Islamic bank may be affected by internal and external factors. Although, prior studies sought out that performance predicted by either the internal or external factors, but this area has not been very much explored. There are no sufficient studies found to compare the profitability determinants of Islamic banks functioning both in underdeveloped and developed Islamic banking markets. This study considers three aspects to qualify a financial market as developed Islamic banking industry i.e. the implementation of Islamic Interbank Offer rate, the existence of Islamic Money market, and relative larger number of Islamic banks functioning in a country. Malaysia is considered for having a developed Islamic banking market as Islamic Interbank Offered Rate is used for pricing the banking products, a parallel and separate Islamic

money market is being functioned and a comparatively larger share of Islamic banks as compared to Pakistan. On the contrary side, Pakistan is considered being underdeveloped Islamic banking industry lacking with separate pricing model and separate Islamic money market. Moreover, as compared to Malaysia there is less number of Islamic banks working in Pakistan.

Literature Review

The literature is enriched with various performance determinants of Islamic banks. If we look into previous literature; factors that affect bank's performance are divided into two categories (Haron, 2004). One includes external or economic factors which cannot be controlled by bank's management including Gross Domestic product, competition, regulation, Inflation rate. Other includes internal elements that can be influenced by the organization. The internal factor can further be categorized in two types of variable i.e.; financial statements' variables and non-financial statement variables: prior include ratios and figures from Statement of the Financial position and Income Statement, but the other one includes the factors like age, number of directors, location of bank and number of branches in a country. The previous studies showed that the bank's performance is affected by financial statements' variables significantly. Hester and Zoellner (1966) and Mullineaux (1978) had suggested that all assets on the Statement of financial position impart a significant impact on the performance, whereas banks obligations such as total loans, time deposit ratio, saving, demand and time deposits effects financial performance negatively.

Haron and Wan (2004) studied the effect of internal and external factors on the performance of Islamic banks using error-correction and time series mechanism. They suggested that factors like, inflation, deposit position, money supply, asset structure, and liquidity proved to have a strong relation with profitability. However, in short-run profitability does not change rapidly with change in the explanatory variables.

Al-Qudah and Jaradat (2013) explained the relationship between external and internal factors on performance of Jordanian banks. The study shows that size and capital adequacy significantly affects the Islamic bank's performance, on the contrary liquidity has not proved to be main profitability determinant for Jordanian banks. The measure of leverage (total deposit to the total asset) negatively affects the Islamic banks' performance in Jordan. Another important

finding was that macroeconomic factors like money supply growth and Amman stock exchange index proved to be good performance determinant of the Islamic banks. Internal factors have a direct and significant effect on the performance measured through ROA, ROE, and Net profit margin, whereas the higher cost to income ratio affects profitability negatively. However, external factor including inflation and GDP have positive significant relation with the banks' performance (Smaoui & Salah, 2011).

Asutay and Izhar (2007) worked on the internal factor which effects profitability of Bank Muamalat of Indonesia using ROA. The study explained that profit is a function of financing activity, further it was found that service activities in BMI do not contribute much in the profitability of BMI. Wasiuzzaman and Tarmizi (2010) asserted that the internal factors (Asset quality and capitalization) negatively affect the profitability, on contrary, liquidity and operational efficiency significantly effects the profitability. However, GDP and inflation seem to have a direct impact on profitability.

The profits and operational efficiency of conventional and Islamic banks are affected by the bank specific factors including liquidity and credit risk (Akhter, Raza, & Akram, 2011). Hassan and Bashir (2003) asserted that the internal factor including bank-specific characteristic and overall financial sector affects the performance of an Islamic bank. The results were consistent with the previous research findings; moreover, macroeconomic factors were strongly associated with profitability of Islamic banks. The customer's demand for the bank loans is stimulated with the higher GDP growth, ultimately increasing the banks' profit (Hassan & Bashir, 2003; Kosmidou, Pasiouras, Doumpos, & Zopounidis, 2006). However, a strong relationship is observed between the favorable economic conditions of a country and the financial sector (Asli Demirgüç-Kunt & Maksimovic, 1996). On the other hand, it has been observed that profitability of Malaysian banks significantly driven by their size, on the other hand credit risk, capital adequacy, liquidity and size do not affect the performance significantly (Asma et al., 2011).

A.-H. M. Bashir (2003) asserted that leverage, liquidity, and other overheads have a direct and significant relationship with banks' performance Middle Eastern countries. The author further opined that GDP positively affects profitability. Samad (2004) was of the view that in

terms of liquidity and profits, Islamic and conventional banks are on the same page, but the Islamic banks are less risky than conventional banks.

Alkassim (2005) examined 34 different Islamic and conventional banks covering a period of (1997-2004), simple regression was used in this study. Performance was measure by ROE, ROA and net profit margin. The study suggested that capital adequacy and size have the negative impact on profitability of conventional banks, in contrast these factors have a positive impact on the profits of islamic banks. Total loans affect the performance of both the banks. This study further elaborated that the relationship of deposit with the performance of conventional counterparts is positive while deposits project the reverse impact on Islamic bank's performance. Smirlock (1985) argued that profit comes from the increase in the demand deposit in banks. Conversely, Heggestad (1977) was of the view that time and demand deposit negatively affect the bank's performance.

Several external factors have been found having significant impact on conventional bank's performance. Variables like concentration, regulation, competition, growth, money supply, inflation significantly affect profitability of banks (Haron, 1996, 2004). Regulation in an industry is generally imposed by central banks of a country by implanting interest rate, lending and borrowing policy, deposit pool structure and meeting liquidity requirements. Industry regulation may be considered as one of the most significant element of financial performance. Relevant literature can be found in (Emery, 1971; Peltzman, 1968; Vernon, 1971)

Molyneux and Thornton (1992) inferred that profitability (ROE) and macroeconomic factors are positively associated. Zarrouk, Ben Jedidia, and Moualhi (2016) studies Islamic banks in MENA countries GMM estimator was used to find out the empirical evidence. Variables like ROE, ROA, and profit after tax are used as a proxy of profitability of Islamic bank. Three factors including bank's specific (internal), macroeconomic (external) and dummy factors for economic development and financial crises were considered as the determinant of profitability. The study found that internal factors significantly affect the performance. Whereas the negative relation has been observed between inflation and Islamic bank's profitability

Data and Methodology

Literature has provided a strong base to select the most significant dependent and independent variables. ROE is taken as the explained variable and the proxy of profitability. Five bank-specific variables are picked as the explanatory (independent) variable to represent the liquidity, leverage, efficiency, size, and asset quality. Two independent variables (GDP per capita, inflation) are chosen to represent the macroeconomic condition of both countries.

Data and Sample

The data is being collected from the financial statements of eight full-fledged Islamic banks in Malaysia and four full-fledged Islamic banks in Pakistan. A period of seven years from 2011 to 2017 has been chosen for both the countries, in Pakistan only 2 banks have financial data before 2011, in order to have a balanced panel dataset a period of 7 years from 2011 to 2017 is used for this study. Overall observation after pooling the panel becomes 56 and 28 for Malaysia and Pakistan respectively. Two macroeconomic variables (GDP per capita, CPI) were collected from world development indicators (WDI). The variable description and expected relationship of the variable used in this study is given below in Table 1.

Table 1

Definitions of Dependent and Independent Variables

Variables	Measure	Acronym	Definition
Dependent Variable			
Profitability	Return on Equity = Net Profit/Total Equity	ROE	It measures the ability of banks to use their shareholders' equity to produce profits. A better profitability indicator will be depicted from the higher value of this ratio (Samad, 2004).
Independent variables			
Bank specific			
Liquidity	Total loans/Total asset	LA	LA is tied to the assets portion of the loan. Higher ratios will reduce bank liquidity, which may increase non-performing loans (Hassan & Bashir, 2003).
Leverage	Shareholder’s equity/Total liabilities	EqL	EqL is a measure of assets finance by equity or debt. A higher value will represent lower risk as the assets are

			financed more by equity.
Size	Ln of Total Assets	LnA	The large size of is likely to minimize the cost by achieving the economies of scale (A.-H. M. Bashir, 1999; Boyd & Runkle, 1993).
Efficiency	Asset Turnover = Profit from Islamic financing/total Assets	AT	It measures the ability of a bank to generate profit from Islamic financing by utilizing its assets. A higher value means that banks are generating efficient returns.
Asset Quality	Loan loss Provision/net interest revenue	LLPNR	The higher value of this ratio would represent the weaker quality of assets, which mean larger provisions are created for bad debts resulting the lower performance (Heffernan & Fu, 2010).
Country Specific			
GDP Per Capita	GDP Per Capita	GPC	GDP per capita measures the average standard of living in a country. The higher value would enhance the deposits and the profitability of banks.
Inflation	Consumer Price Index	CPI	The gradual increase in the prices of the products of a country is measured by CPI. Inflation is linked with the higher interest rate on loans, and bank profitability is positively associated with inflation (Asutay & Izhar, 2007; Wasiuzzaman & Tarmizi, 2010).

Model and econometric specification:

Three econometric models are implemented to determine the profitability determinant in both regions. In the end, based on the statistical evidences and tests, Random Effect is considered most suitable based on the structure the data. Panel regression models Pooled OLS (1), Fixed Effect (2) and Random Effect (3) can be specified as below:

$$y_{ijt} = \alpha_0 + \alpha_i B_{it} + \beta_j X_{jt} + \varepsilon_{it} \quad (1)$$

$$\therefore \varepsilon_{it} = \upsilon_i + \mu_{it}$$

$$y_{ijt} = (\alpha_0 + \upsilon_i) + \alpha_i B_{it} + \beta_j X_{jt} + \mu_{it} \quad (2)$$

$$y_{ijt} = \alpha_0 + \alpha_i B_{it} + \beta_j X_{jt} + (\upsilon_i + \mu_{it}) \quad (3)$$

Where:

y_{ijt} is the explained (dependent) variable of Islamic bank i in a country j at the time t.

B_{it} are the bank-specific variables for the bank i at the time t.

X_{jt} are the country-specific macroeconomic variables for the country j at the time t.

α_0 is the constant term and the intercept.

α_i and β_j are the coefficients of bank-specific and macroeconomic variables, respectively.

ε_{it} is the error term, υ_i is the individual effect and μ_{it} is the time effect

The current research empirically investigates the profitability determinants of Islamic banks of Pakistan and Malaysia. Based on F-test (Prob. > F = 0.0141 & Prob. > F = 0.0186) we reject null and conclude that the intercepts are different and individual effect is present in the panel Shapiro-Francia W' test for normality gave satisfactory results. VIF test is performed to test multicollinearity; all the variables of both countries had the value of less than 10 with a mean VIF of 3.14 and 3.95 for Malaysia and Pakistan respectively. Furthermore the Breusch-Pagan test results (Prob. > χ^2 = 0.5410 & Prob. > χ^2 = 0.5718) showed that the errors are homoscedastic since no evidence is found for heteroscedasticity in the data for both the countries. Moreover Wooldridge test is performed to test serial correlation, test for Malaysian data showed the evidence of first-order autocorrelation, with Prob. > F = 0.0020, it is concluded that there is first order autocorrelation in panel for Malaysia. Wooldridge rest for panel data of Pakistan showed the value of Prob. > F = 0.3459 showed no evidence have been found for the first-order autocorrelation. On contrary, first order autocorrelation have been found for Malaysia hence the Random Effect (within) regression with AR (1) disturbances are used to estimate the results. Hausman test suggested that Random effect regression model is considered the appropriate model for both the countries.

Discussion and Results

Descriptive Statistics:

Table 2 below represents the descriptive data analysis of variables used in the study.

Table 2

Descriptive Statistics of Data

	Malaysia				Pakistan			
Variables	Mean	St. Dev.	Min.	Max.	Mean	St. Dev.	Min.	Max.
ROE	10.899	3.272	4.54	17.41	8.411	9.734	-10.68	28.18
GPC	9.247	0.0683	9.146	9.352	7.020	0.0536	6.953	7.109
CPI	2.388	0.549	1.647	3.20	7.129	3.037	2.539	11.917
LA	0.609	0.115	0.39	0.78	0.469	0.0954	0.32	0.67
EqL	0.077	0.0161	0.05	0.1	0.0782	0.0237	0.04	0.15
LnA	17.185	0.605	16.17	18.26	18.796	0.751	17.69	20.48
AT	0.069	0.015	0.04	0.096	0.046	0.005	0.037	0.053
LLPNR	-0.0358	0.0531	-0.131	0.100	-0.007	0.1399	-0.398	0.485

Table 2 shows descriptive statistics of the variables, which indicates that all the variable have positive mean values except for Asset quality having values of (-0.0070) and (-0.0358) with a standard deviation of 0.1399 and 0.0531 for Pakistani and Malaysian Islamic banks respectively. ROE has the mean value of 8.4109 and 10.898 with the highest value of standard deviation of 9.733 and 3.27 for Pakistan and Malaysia respectively. A high standard deviation in ROE is due to the high difference in return on equity among all the banks in both countries. GDP per capita (GCP) has the less volatile mean value of 7.02 and 9.246 and S.D of 0.05357 and 0.0683 for Pakistan and Malaysia respectively, comparison between CPI of both countries employs that overall trend of Inflation rate of both the counties is quite different. This further indicates that the inflation rate of Pakistan is quite unpredictable with a minimum value of 2.5395 and a maximum value of 11.9167 during the study period.

Table 3

Correlation Matrix

Variables	ROE	GPC	CPI	LA	EqL	LnA	AT	LLPNR
ROE	1							
GPC	-0.3586	1						
CPI	0.0629	-0.1801	1					
LA	0.0974	0.7429	-0.1236	1				
EqL	-0.4446	0.4815	-0.0005	0.1870	1			
LnA	0.6233	0.2644	-0.0830	0.5076	0.0183	1		
AT	0.1358	0.1452	-0.0524	0.1976	0.6815	0.3498	1	
LLPNR	-0.0479	0.0904	-0.0821	-0.1553	0.2105	-0.2940	0.1289	1

Table 3 presents correlation matrix of variables under study of Malaysian Islamic banks. The table shows that three independent variables are inversely related to the dependent variable. The correlation between per capita GDP and dependent variables is weak. The correlation among the variables is not higher than 0.8 or 0.9, which means there is no evidence for collinearity between independent variables (Franke, 2010; Kennedy, 2003).

However, the correlation matrix is not a good measure to detect the degree of multi-collinearity; we perform a VIF or tolerance test of independent variables to check the multicollinearity. VIF for all variables is below 10 which suggest that the presence of multi-collinearity may be neglected for this study (Franke, 2010; Hair, Anderson, Tatham, & Black, 1999; Kennedy, 2003).

Table 4

Correlation Matrix (Pakistan)

Variables	ROE	GPC	CPI	LA	EqL	LnA	AT	LLPNR
ROE	1							
GPC	0.011	1						
CPI	0.0889	-0.6737	1					
LA	-0.2306	0.6746	-0.4191	1				

EqL	-0.5111	-0.351	0.4955	0.0891	1			
LnA	0.7269	0.5162	-0.4233	0.0019	-0.7607	1		
AT	-0.0669	-0.8514	0.7926	-0.4553	0.5436	-0.6303	1	
LLPNR	-0.0103	-0.285	0.3221	-0.1708	0.0649	-0.0218	0.2193	1

Table 4 presents a correlation matrix of variables of Pakistani Islamic banks. Positive and a weak correlation exist between GPC, inflation rate, and ROE. However, efficiency and asset quality is negatively correlated with ROE. Bank size shows a strong correlation with ROE, which infers that Islamic banks' profitability is strongly affected by banks' size. The maximum correlation value between independent variables is no more 0.8 or 0.9, which implies that is no satisfactory evidence of collinearity have been found (Franke, 2010; Kennedy, 2003). Furthermore, VIF test was performed to test collinearity, the value is less than 10 for each variable (Franke, 2010; Hair et al., 1999; Kennedy, 2003).

Empirical Finding and Discussion:

Table 5 is showing the results from Random Effect model to make a comparison between profitability determinants of Islamic banks in Malaysia and Pakistan. Furthermore, results from Pooled and Fixed effect table are given in the appendix (Table I).

Table 5

Regression Results

	Malaysia	Pakistan
	Random Effect	Random Effect
GPC	-31.246*** (-5.780)	-79.979* (-1.950)
CPI	0.479* (1.830)	0.878* (1.770)
LA	8.976*** (3.010)	30.373** (2.090)
EqL	-68.430*** (-3.500)	-24.392 (-0.400)
LnA	3.874*** (8.800)	15.917*** (7.570)

AT	62.705 (1.100)	208.992 (1.470)
LLPNR	20.695*** (6.580)	-14.950** (-2.280)
Const.	229.831*** (4.740)	237.548 (0.850)
Wald χ^2	306.89	116.82
Prob. $>\chi^2$	0.0000	0.0000
F-Test	Prob. > F = 0.0141	Prob. > F = 0.0186
Hausman Test	Prob. > χ^2 = 0.0789	Prob. > χ^2 = 0.1222

*, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively

Liquidity has a direct and significant relation with the profits of the Islamic banks of both the countries, our findings are persistence with previous studies such as A.-H. M. Bashir (2003), Wasiuzzaman and Tarmizi (2010) and Zarrouk et al. (2016). It indicates that more the loans sanctioned by the bank, the higher will be the profit margin at the end of the period. Moreover; higher Loan to Asset ratio indicates a higher percentage of assets invested in financing. It was hypothesized that an Islamic bank bigger in size would tend to make more returns as opposed to smaller banks. Our results support the phenomenon that size of bank significantly imparts a positive effect on profitability of banks of both countries. Which implies that better performance of larger banks primarily because of achieving economies of scale that will cut the cost as compared to smaller banks (Alkassim, 2005; Shaffer, 1985).

Another imperative finding of the study shows a direct and significant relationship of inflation rate with ROE. The positive impact of inflation rate on the banks' profits depicts that there is a comparatively larger rise in the income than the cost of goods and services. Islamic banks of Pakistan and Malaysia have successfully predicted the rate of change of inflation over the period and management of the Islamic financial organization are successfully predicted and adjusted the inflation rate while pricing the financings (Asutay & Izhar, 2007; Bourke, 1989; Ash Demirgüç-Kunt & Huizinga, 1999; Wasiuzzaman & Tarmizi, 2010). Furthermore, positive and significant relationship is due to the use of asset-backed financing (Murabaha, Istisna, Salam, Ijarah) which adjust the effect of inflation automatically due to the rise in the asset prices.

Average business output and average lifestyle as measure by GDP per capita for both countries represents a comparative standard of living in Pakistan and Malaysia in terms of dollars showed significant but negative relationship with Islamic banks' profitability. The primary reason of negative relationship is the choice preferences of conventional banking over the Islamic banking due to cheaper products and services and a larger branch network offered by conventional banks in both the countries (Rustam, Bibi, Zaman, Rustam, & Haq, 2011). Our empirical results are not consistent with the previous researches such as Bourke (1989), Hassan and Bashir (2003) and Zarrouk et al. (2016), where it was argued that high economic growth enhances the credit quality, reduced the probability of default and hence the profits are directly affected by GDP per capita.

Our results show that efficiency imparts strong positive effect on Islamic bank's profitability. The result is persistent with the previous study (Zarrouk et al., 2016). The value of the coefficients is (62.7048) and (208.991) for Malaysia and Pakistan respectively. Although, efficiency affect profitability directly, the results are insignificant for the Islamic banking market of Malaysia and Pakistan, which means there are other efficiency measures as well that drive Islamic banks' profits.

Our model suggests that leverage significantly affects the performance of Malaysian Islamic banks. The negative coefficient of leverage is significant at 1%. Our finding is persistent with the previous studies, which suggest the same results (Myers, 2001; Negash, 2001; Phillips & Sipahioglu, 2004). The results infer that Islamic banks cannot beat the level of conventional counterparts in terms of leverage (Beck et al., 2013; Olson & Zoubi, 2008) as Islamic banks operate at lower leverage level as compared to conventional counterparts (Pappas, Ongena, Izzeldin, & Fuertes, 2017). This factor puts extra stress on Islamic banks to show its optimal performance. Furthermore leverage of Islamic banks is negatively associated with its profit because the deposits are accepted on Mudabara basis which itself a contract of partnership where the bank and the depositors perform business activities on partnership basis. The profit arising from business activities are then distributed to all depositors and bank. Another reason for this negative relation is that Islamic banks are precluded from fixing the rate of return for deposit and depositors can review the business activities performed by banks on their behalf. The coefficient

of leverage for Pakistani banks is (-24.391) not significant as displayed in the table which means that leverage is not a good profitability determinant of Islamic banks in Pakistan.

Our model suggests that asset quality of Islamic banks of Malaysia proved to be relatively better as compared to Pakistan. The coefficient of LLPNR (20.695) is at 1% level of significance, it posits that Malaysian banks have strict credit compliance and have the ability to recognize weaker loans in advance and the banks have practice to avoid unfavorable events. The findings is not inconformity with previous studies (Heffernan & Fu, 2010; Kosmidou et al., 2006; Vong & Chan, 2009). On the contrary, it has been observed that the reserve for credit losses is negatively associated with the bank's performance, which indicates that the focus should be on credit risk (Athanasoglou, Delis, & Staikouras, 2006). However, the negative and significant relation between asset quality and profitability of the Islamic Banks of Pakistan, indicates that there the financing assets are riskier than that of the Islamic banks of Malaysia. Therefore, to improve profitability, Islamic banks should also reduce the reserve for credit losses to the total loan index (Brown, 2009).

Conclusion

The paper primarily focuses to explore the elements that can influence the profitability of Islamic banks working in two different markets, namely Malaysia and Pakistan. In 1983, the first initiative to implement Islamic banking in Malaysia was planned. Due to this early evolution, Malaysia was least affected by the credit crunch of 2007-09. At this time, Malaysia is considered as the center for Islamic finance because of development of Islamic Interbank rate, establishment of Islamic money market and a comparatively larger share of Islamic banks comparing to the other Islamic countries like Pakistan. A developed infrastructure of Islamic banking is presently operational in Malaysia. Contrarily in Pakistan, Islamic banks are functioning in a conventional environment where Conventional Interbank offered rate is implemented, nonexistence of Islamic money market and a very fewer number of Islamic banks.

Empirical evidence indicated that liquidity appeared as the most impetrative determinant of profits in both countries. This implies that the banks should be careful and should work on interbank liquidity management as aggressive financing policies may lead to liquidity problems. Negative relation has been analyzed between leverage and Islamic banks' performance of both

countries. However, leverage is not a good predictor of profitability in Pakistan. Efficiency and size of the bank are positively associated with Islamic banks' profit in both countries however, the relationship of efficiency is not significant. Asset quality of Malaysian banks have positive impact on the performance, it can be inferred that sufficient measures have been taken by banks to mitigate credit default risk. While the management need to reconsider the credit risk policies for refining the asset quality of Islamic banks in Pakistan.

In both regions, the profits of Islamic banks are positively affected by inflation. It implies that Islamic banks are expected to experience inflation by setting the price of financial products in Malaysia and Pakistan. However, although the GDP per capita of both countries is growing, the results showed that performance of Islamic banks negatively affected by GDP per capita of the two countries and the profitability of Islamic banks. The reason for the negative relationship is that corporate customers are reluctant to use Islamic banking products. Bank management must initiate awareness programs to encourage corporate clients to use Islamic banking products. In addition, Islamic banks should work out to enhance the quality and the efficiency of customer service.

Research Implications

The finding of the study is elaborative in many ways. First, based on the results Islamic banks of both the countries should engage in the interbank liquidity solutions to match the liquidity position of conventional counterparts. Although, liquidity is a good predictor of profitability of Malaysia and Pakistan but there are very limited options available for Islamic banks to meet their requirements. Second, central bank should implement a country wide campaign to encourage the corporate customers to use Islamic banking products. Corporate sector of a country is one of the main economic driving forces, which will lead the financial sector in the long run. Our finding suggests that central bank should work with the scheduled banks to run a campaign to encourage the corporate customers to use financing facility from Islamic banks. Also, Islamic banks must also strive to provide competitive services that are equivalent to conventional banking services.

Third, our findings suggest that asset quality of Islamic banks in Pakistan should be up to the mark to meet the expected losses. Policies must be formulated in such a way that the probability of occurrence of losses can be minimized, and these should also be adhered in true

letter and spirit to minimize the risk of loss. State bank of Pakistan must look into it and formulate a team that and guide and monitor Islamic banks to work on the quality of financing products.

Limitations of Research

We have encountered a number of problems and limitation while completing this study that may affect the accuracy and generalizability of the findings of the research. Frist, the data set is limited in Pakistan as only four full-fledged Islamic banks are working here. In order to have a balanced panel data we take the study period from 2008 to 2014. Second, Islamic windows working under the conventional banks were completely ignored due to non-availability of the separate financials of Islamic windows.

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Appendix 1

Regression Results

	Malaysia			Pakistan		
	(Pool)	(Fixed)	(Random AR1)	(Pool)	(Fixed)	(Random)
GPC	-30.297*** (-5.210)	-17.968** (-2.050)	-31.246*** (-5.780)	-79.979* (-1.950)	8.293 (0.160)	-79.979* (-1.950)
CPI	0.478 (1.450)	0.080 (0.280)	0.479* (1.830)	0.878* (1.770)	0.720 (1.710)	0.878* (1.770)
LA	9.160*** (3.130)	-5.068 (-0.950)	8.976*** (3.010)	30.373** (2.090)	36.208* (1.980)	30.373** (2.090)
EqL	-77.209*** (-3.320)	-23.248 (-0.930)	-68.430*** (-3.500)	-24.392 (-0.400)	-87.863 (-1.360)	-24.392 (-0.400)
LnA	3.714*** (9.140)	6.220** (2.390)	3.874*** (8.800)	15.917*** (7.570)	-4.869 (-0.710)	15.917*** (7.570)
AT	94.676 (1.380)	232.774*** (2.990)	62.705 (1.100)	208.992 (1.470)	51.142 (0.410)	208.992 (1.470)
LLPNR	20.280*** (5.420)	20.849*** (7.190)	20.695*** (6.580)	-14.950** (-2.280)	-15.762** (-2.610)	-14.950** (-2.280)
Const.	222.810*** (4.280)	64.368 (1.650)	229.831*** (4.740)	237.548 (0.850)	22.826 (0.080)	237.548 (0.850)
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0570	0.0000
R-sq.	0.8647	0.6840	0.8639	0.8538	0.2063	0.8538
F-Test	Prob. > F = 0.0141			Prob. > F = 0.0186		
Hausman Test	Prob. > χ^2 = 0.0789			Prob. > χ^2 = 0.1222		

*,**, and *** denote significance at the 10%, 5%, and 1% levels, respectively