

EFFICIENCY ANALYSIS OF ISLAMIC BANKING IN PAKISTAN

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Abstract

The aim of the study was to evaluate the efficiency analysis of Islamic banking working in Pakistan. The study adopted the causal design because it enabled us to determine 'how' and 'why' the dependent variable changed due to variations in the explanatory variable. The data used in this research was quantitative data. There are five (5) full fledge Islamic banks which are purely with Riba free banking (SBP IBP Bulletins, 2019). The study selected all the five (5) full-fledged Islamic banks working in Pakistan on Purposive sampling technique. Data will be collected form the annual reports of all full-fledged Islamic banks working in Pakistan, for five (5) years from 2015 to 2019. This study used a model which was adopted from the CAMEL model of 1979 in examining the effect of bank specific factors on the performance of Islamic banks. Regression and correlation was used to find out the effect of independent variables on the dependent variable.

INTRODUCTION**1.1 Background of the Study**

The Islamic financial system main framework is designed as a set of rules and principals which are the social, political, cultural and economic pillars of Islamic societies (Musa & Obadi, 2009). Islamic Banking was grown in 1970 mid-session and industry got growth from this era as an alternative of conventional banks. Now, it was found an important aspect of banking sector throughout the world (Mallin, Faraga & Yonga, 2014). Islamic banks getting more fame over most of the conventional banking products but sometimes it may suffer operational and financial losses. The major reason behind this is the profit and loss sharing principal of Islamic bank (Bellalah & Ellouz, 2004)

According to the Islamic faith paying or charging interest on any loan is not permitted. Muslims who do not want to enjoy interest yield turn to Islamic banks which operate in accordance with the Islamic principles. Islamic banking naturally has flourished in countries with concentrated

Muslim populations. However countries with no significant Muslim population (i.e. England) have been conducting Islamic banking operations in the Middle East. Islamic banks have been making efforts to increase their productivity in order to improve their performance as a result of the globalization and increased competition (Mghaieh & Mehdi 2014). The recent global mortgage crisis brought Islamic finance forward as an alternative in terms of investment and banking (Smola & Mirakhor 2010). Islamic banking has become an integral part of the global finance structure particularly with its immunity to the recent banking and financial crises (Aldohni 2015).

Islamic banking has picked up force and affirmation particularly in the Middle-East and Southern Asia when contrasted with the remainder of the world (Ariff, 2014). The most significant explanation for this is these pieces of the world are home to nations with a greater part of Muslim populace. By and large, Islamic banks working worldwide can be tended to in two classes. The first is the nations wherein the banking

framework depends on premium free standards, while the second includes a premium free banking framework as a feature of an industrialist framework where premium profit are permitted. Pakistan, Iran and the Sudan fall under the primary classification. Malaysia, Turkey and the various Islamic nations fall under the subsequent classification. Proficiency examination is a significant regulatory device for banks which is utilized to decide the degree of info usage so as to deliver yield.

Islamic banks have been putting forth attempts to expand their efficiency so as to improve their presentation because of globalization and expanded rivalry (Mghaieth and Mehdi, 2014). The ongoing worldwide home loan emergency presented Islamic account as an option regarding venture and banking (Smola and Mirakhor, 2010). Islamic banking has become a vital piece of the worldwide money structure especially with its invulnerability to the ongoing banking and monetary emergencies (Aldohni, 2015). Islamic banking has picked up force and affirmation particularly in the Middle-East and Southern Asia when contrasted with the remainder of the world (Ariff, 2014). The most significant explanation for this is these pieces of the world are home to nations with a dominant part of Muslim populace. Generally, Islamic banks working worldwide can be tended to in two classifications. The first is the nations wherein the banking framework depends on premium free standards, while the second includes a premium free banking framework as a major aspect of an industrialist framework where premium income are permitted. Pakistan, Iran and the Sudan fall under the principal classification. Malaysia, Turkey and the various Islamic nations fall under the subsequent classification. Proficiency investigation is a significant regulatory instrument for banks which is utilized to decide the degree of info use so as to create yield. Information Envelopment Analysis, as a typical estimation technique utilized for proficiency examination, is a direct programming based without parameter strategy for estimating the general productivity of not-for-profit and revenue driven associations and companies (their dynamic units). This methodology thinks about

that distinctive dynamic units may have diverse creation capacities.

1.2 Problem Statement

Islamic banking has a great growth in Pakistani Banking sector but it is observed that it doesn't achieve its financial stability. Due to this it may affect the acceptance by customers as an alternative of conventional banking system therefore there is a need to identify the major factors effecting performance of Islamic banks in Pakistan.

1.3 Research Question

- Is there any efficiency of Islamic banks in Pakistan?
- What is the impact of factors effecting efficiency of Islamic banks?

1.4 Objectives of the Study

- To empirically analyze the efficiency of Islamic banks in Pakistan.
- To examine the impact of factors effecting efficiency of Islamic banks.

1.5 Hypotheses

H₀: Determinants of efficiency has on effect on the efficiency of Islamic Banks

H₁: Capital Adequacy has a significant impact on the efficiency of Islamic Banks

H₂: Liquidity Management has a significant impact on the efficiency of Islamic Banks

H₃: Management Efficiency has a significant impact on the efficiency of Islamic Banks

H₄: Assets Quality has a significant impact on the efficiency of Islamic Banks

1.6 Limitations

There were some limitations which are as under:

1. The study is limited to Islamic banks in Pakistan
2. The study only covered the time from 2015 to 2019 because MCB Islamic bank only started its operations from September 2014.
3. As study used Camel model, therefore it is only covering the variables which are already define by the model.

1.7 Scheme of study

The study is consisting of five chapters:

Chapter 1 is about introduction of the study.

Chapter 2 is all about the previous work done by the researchers, it is known as literature Review.

Chapter 3 contains the research methodology used to do that research.

Chapter 4 is consisting of results extracted from the collection of the data, analysis and then interpretation.

Chapter 5 is considering the findings, conclusion and recommendations of the study in the light of results.

LITERATURE REVIEW

A number concerning researchers have worked regarding the elements affecting commercial banks' profitability. In that section, we pleasure synthesize it elements affecting commercial banks' profitability into Pakistan within the light on previous studies conducted. Bashir (2003) performed a lookup over the Islamic banking law after analyze the traits then economic environment up to expectation have an effect on the overall performance on Islamic banks. He used facts out of eight Middle Eastern countries because of its purpose yet analyzed extraordinary inside or exterior characteristics. The results showed so equity in imitation of volume belongings and mortgage to quantity property ratios are at once related in accordance with profitability. Hijazi and Shah (2004); Awan, Rashid and Rehman (2011) discovered a terrible however statistically substantial relationship in money owed according to belongings or profitability.

2.1 Empirical Evidence

Norbaizura, Rosmanira, Mohd (2014) moderate the efficiencies regarding 10 Islamic banks working in Malaysia because of 2011 the use of the DEA method. Ahmad yet Abdul-Rahman (2012) analyzed the efficiencies about Islamic then conventional banks working within Malaysia using the DEA method because of a length into 2003 or 2007. It was once discovered up to expectation conventional banks have been extra efficient than Islamic banks of phrases on managerial efficiency or empiric improvements. Ahmad Mokhtar et al.

(2008) analyzed the efficiencies on the Islamic banks running within Malaysia the usage of the DEA method because a period among 1997 to 2003. It was once observed as Islamic banks were much less efficient than traditional banks.

Sufian et al. (2013) analyzed the efficiencies concerning Islamic then traditional banks running into Pakistan the usage of the DEA method because of a duration of 2007 to 2011. This instruction produced to that amount traditional banks observed better than Islamic banks. Said, Rachida, and Azza (2011) analyzed the efficiencies regarding Islamic then conventional banks working of Indonesia using the DEA technique between a learning based about the data accumulated among March 2010 to July, 2011.

Al-Maghaireh (2005) analyzed the efficiencies of three Islamic banks yet 5 traditional banks operating of the UAE using the DEA approach because of a duration between 2000 and 2004. The outcomes confirmed to that amount Islamic banks were greater environment friendly than the traditional banks. Hussein (2003) modest the operational efficiencies on 17 Islamic banks working in Sudan because a duration between 1990 to 2000.

Ferrouhi (2017) conducted a study to analyze the long-term determinants of performance of eight biggest Moroccan commercial banks, for the period 2005-2015, using the Johansen cointegration test. Three measures of overall performance have been chronic into that study. These were: the internet noninterest Mrgin (NIM), returns on Assets (ROA), or returns of Equity (ROE). The effects indicated so much the importance concerning bank-specific variables (size on the bank, short-term, long-term then funding liquidity, deposits, and overseas direct investments) are long-term determinants about the overall performance about Moroccan industrial banks.

Concerning the impact of corporate governance structure on the performance of Moroccan banks, Sbair and Meghouar (2017) used data from 6 Moroccan commercial banks listed on Casablanca Stock Exchange for a period of 7 years from 2009 to 2015. The empirical results of this study indicated that the presence of a nomination and

remuneration committee has a positive impact on the performance of Moroccan banks. The size of the board of directors and the presence of foreign administrators positively influence bank performance.

Kamaruddin et al. (2008) analyzed the efficiencies on regional and global Islamic banks running within Malaysia the use of the DEA technique for a duration within 1998 to 2004. Sufian (2007) analyzed the efficiencies regarding Islamic banks working among Malaysia the use of the DEA approach for a duration of 2001 to 2005. It used to be determined that the Islamic banks working between Malaysia confirmed inadequate range efficiency. Mokhtar, Abdullah and Al Habsh (2006) analyzed the efficiencies regarding Islamic and conventional banks working in Malaysia. It was stated that the efficiency level regarding the Islamic banks had been decrease than the degree on conventional banks. Ahmad Mokhtar et al. (2008) analyzed the efficiencies about Islamic banks operating within Malaysia the usage of the DEA method for a duration in 1997 to 2003.

Chotigeat (2008) assessed the effectivity concerning home or foreign banks within Thailand due to the fact that Asian pecuniary crisis. Using quarterly time-series statistics concerning domestic then foreign banks beyond 1997 to 2003, she analyzed the cause regarding their efficiency. His findings indicated that both the mortgage deprivation provisions or efficiency ratio had negatively influenced the overall performance on home banks, whilst only loan break provisions had influenced the bad overall performance of foreign banks.

Wirnkar and Tanko (2008) analyzed the “CAMEL(S) and Banks Performance Evaluation”. They discovered up to expectation CAMEL captured universal overall performance on a financial institution using secondary facts accumulated from the yearly reports over eleven business banks within Nigeria atop a length concerning (1997-2005). Data was analyzed by means of the Efficiency Measurement System (EMS) and independent T-test equation. The findings had uncovered the inability regarding each thing between CAMEL in accordance with seize the holistic performance of a financial

institution yet the supporter weight concerning appreciation about the factors within CAMEL ensuing trade between acronym regarding CAMEL in conformity with CLEAM.

Atkogullari (2009) engaged a comparable approach based regarding CAMEL framework in accordance with analyze the workings over the Northern Cyprus banking sector. The consequences counseled as the profitability yet the management exorcism about the analyzed banks had enhance all through the analyzed duration over time, while deterioration had been registered between the headquarters a riot of then liquidity level.

Heys et al. (2009) examined the “Efficiency Ratios or Community Bank Performance.” They developed a model in imitation of differentiate among ignoble efficiency or excessive effectivity community banks so much was once multivariate discriminant the use of facts because of 2006-08. The model blanketed proxies for banking regulatory CAMELS ranking variables including: equity capital according to aggregation commodity ratio, net charge-offs in imitation of loans, salaries in accordance with common assets, ROAA, liquidity ratio or 1 yr GAP ratio. The model's classification accuracy levels beside 88% in imitation of 96% approximately, because of both authentic and cross-validation datasets.

Sangmi and Nazir (2010) evaluated the economic overall performance regarding the twain principal banks i.e. Indian nationalized bank (INB) and (JKB) operating into northern India at some point of 2001-2005. The function concerning the banks beneath education was sound then satisfactory consequently a ways as much their metropolis adequacy, commodity quality, Management capability yet liquidity was once concerned.

Babar and Zeb (2011) examined the “CAMELS rating system for banking industry in Pakistan” with a sample of 17 commercial banks. They examined the similarities within the consequences generated through the CAMELS ranking rule and PACRA ranking agency. The outcomes generated did now not show some similarities together with each lousy giving an attribute on the banks that had long gone regarding in accordance with financial ruin into the past three in imitation of

four years then a future risk in accordance with financial region regarding Pakistan.

Shar et al. (2011) analyzed international and domestic over the banking enterprise among Pakistan the use of CAMEL parameters. It had been explored so the position of banks beneath lesson had been response yet satisfactory along regards to capital adequacy, property quality, management capabilities, profits then liquidity.

Dincer et al. (2011) evaluated "A Performance Evaluation of the Turkish Banking Sector after the Global Crisis via CAMELS Ratios" in the course of 2002-2009. He observed positive trends had viewed of terms regarding the performance concerning State-owned, Privately-owned or Foreign Banks after 2001 to 2008 crisis. The equity ratio which had assigned because respective chances over banks since the curvature varied of comparison in accordance with macro-economic tendencies underneath the situation about banking government touching being on the ratio about 8%.

Jabeen (2011) examined the effectivity within the Banking Sector of Pakistan through quantitative analysis together with qualitative inferences about 14 elect banks throughout 2006-10. It aged the parametric OLS technique, the usage of the decision concerning effectivity yet the employ over variables select beside the CAMEL ranking provision regarding the regulators regarding economic institutions. She mentioned the consequences between connation of the historical past of the variables concerning evaluation or theirs relationship in accordance with effectivity concerning banks.

Said and Tumin (2012) investigated the affect concerning bank-specific elements which included the capital, credit, liquidity, running costs or altar on commercial banks on their performance, as was once moderate by using rejoinder concerning common assets (ROAA) and return of average equity (ROAE). The outcomes about learning confirmed so ratios busy had one of a kind outcomes on the performance of banks among each countries, except headquarters yet credit ratios. Operating ratios influenced overall performance concerning banks within China, however it have an effect on used to be not real for

Malaysian banks regardless on the measure about performance.

Samadi (2012) measured the performance of privatized banks in Iran through two well-known financial figures including ROA and ROE, two years before and after privatization program by using non-parametric. The results of study indicated that there was a meaningful difference between the performance of these banks before and after privatization program.

Mehta (2012) examined the "Financial Performance of UAE Banking Sector" and made comparison of financial performance of banks, before and during crisis in UAE. The study covered a six year period from 2005 to 2010, which had been classified into before, during and after crisis period and included all banks listed on Abu Dhabi Stock Exchange. The performances of banks had been measured by financial ratios. He concluded that the recent global crisis had shocked the UAE bank's financial performance especially the profitability which was measured by ROA and ROE. All profitability ratios and liquidity of banks had decreased during the crisis period. On the other hand Leverage ratios of UAE's baking sector had increased during the crisis period as compared to precise period.

Iqbal (2012) investigating the Banking sector's Performance in Bangladesh and in contrast the four types of bank's performance concerning the foundation regarding choice CAMELS ratios. The research tried to find oversea the outset yet alliance on different ratios and GDP contributions by means of monetary intermediaries. Among the 4 classes concerning banks running between Bangladesh, DFIs had been discovered more inclined in contrast in accordance with the relaxation of the 3 categories. FCBs then PCBs confirmed all the nice indicators over well-functioning whereas SCBs also confirmed a fashion about enhancing performance. Correlation among partial ratios concerning CAMELS and GDP increase rate used to be additionally the same.

Gebba yet Ahmed (2013) evaluated the economic overall performance concerning Alexandria bank pre-post privatization over people years length (five years earlier than or five years below privatization)

by way of the use of the CAMEL framework. The performance over the bank over Alexandria afterwards privatization about average used to be drastically better at the level regarding capital abundance or earnings. There was a massive distinction of the performance of the twain levels yet most probable between favor concerning privatization.

Mishra et al. (2013) analyzed the soundness then measured the efficiency over 12 community or private region banks primarily based over the need topi over a period on eleven years (2000-2011) among the Indian banking sector. CAMEL approach was once old then that used to be mounted to that amount personal quarter banks are at the pinnacle about the list, together with their workings among terms concerning soundness being the best. DEA supplied large insights over the efficiency concerning one of a kind banks yet positioned non-public area ones at a capabilities situation.

Ada then Dalkılıç (2014) measured the efficiencies on IV Islamic banks working within Turkey or 18 Islamic banks running among Malaysia the use of the DEA method for a duration of 2009 to 2011. Al-Mutairi yet Al-Omar (2008) had examined the elements affecting the profitability about seven country wide banks in Kuwait beside 1993 to 2005. The results indicated up to expectation fairness and aggregate property of a financial institution are without delay related in accordance with Return on Assets (ROA). However, the impact over loans and prices concerning profitability is insignificant.

Kosmidou (2008) has labored about the determinants about banks' profits of Greece. He took a sample of 23 banks beside 1990 in imitation of 2002. He amassed statistics out of banks' pecuniary statements yet used regression analysis for the analysis regarding data. The consequences showed to that amount fairness in conformity with assets ratio is positively and considerably related according to profitability. The bulk regarding a bank is additionally positively yet considerably related in imitation of profitability.

Chatzoglou, Diamantidis, and Vraimaki (2010) strong banking productiveness by using taking a pattern on 10 banks between Greece. They old par

ratio analysis because of standardized the overall performance regarding banks. Their effects indicated so large-size banks function higher than middling or baby banks. It skill that profitability is positively associated after financial institution size. Rosly and Bakar (2003) instruction the performance concerning Islamic banks and conventional banks among Malaysia. The pattern consists over 24 business banks and pay up businesses of Malaysia to that amount provide Islamic banking products. The authors makes use of economic ratios and t-test into deciding the outcomes. As because of the result, the authors review so much Islamic banking into Malaysia is no longer efficient although that hold recorded higher ROA. Conventional banks are more environment friendly due in imitation of their excessive property and large need size. Furthermore, the creator condemns up to expectation Islamic banking in Malaysia has yet according to quote a precedent the moral or moral business regarding trade and passage (al-bay') over the Qur'an according to attain efficiency. Most of the Islamic banks within Malaysia function between a comparable courses as much function ate conventional banks. The author suggests up to expectation Islamic banks work more in partnership/joint jeopardy strategies and sales by means of rule the place that do make a contribution extra after society then be able increase theirs profitability regardless of high chance so much occurs.

Sufian (2010) within his studies on the have an effect on over the Malaysian Islamic banking sector performance of the access of overseas banks including 20 banks as like a pattern at some stage in the period 2001- 2007 suggests that on costs, capitalization, want share, and deposit gamble are negatively associated in conformity with Malaysian Islamic banks' profitability. On the mean hand, Islamic banks as are larger tend in accordance with be more profitable.

Ika and Abdullah (2011) are analyzing yet evaluating the pecuniary performance regarding Islamic banks towards traditional banks between Indonesia. In theirs study, that are the usage of 12 sample banks (including conventional or Islamic banks) yet financial ratios i.e. profitability,

liquidity, risk, and solvency according to excuse pecuniary performance. For data analysis, the Mann-Whitney take a look at used to be chronic to evaluate ability from couple or greater samples drawn from two then more populations. An end result concerning their discipline observed no significant

difference within Islamic or conventional banks without because of their liquidity.

Gishkori and Ullah (2013) analyzed the efficiencies about traditional banks yet Islamic banks running into Pakistan the usage of the DEA method because of a duration of 2007 to 2011. It was once located so luminous technical efficiency was the primary motive in the back of the lower efficiency ranges concerning these banks.

Sufian et al. (2013) analyzed the efficiencies on Islamic then traditional banks working within Pakistan using the DEA method for a length between 2007 to 2011. This instruction produced up to expectation traditional banks executed higher than Islamic banks.

Said, Rachida, and Azza (2011) analyzed the efficiencies concerning Islamic and traditional banks running of Indonesia the use of the DEA method among a learning based on the records accrued in March 2010 to July 2011.

Al-Maghaireh (2005) analyzed the efficiencies over 3 Islamic banks or 5 conventional banks working of the UAE the usage of the DEA technique because of a duration into 2000 to 2004. The effects showed that Islamic banks had been extra efficient than the traditional banks. Hussein (2003) reasonable the operational efficiencies about 17 Islamic banks operating into Sudan because a duration in 1990 or 2000.

2.2 Variables of the study

2.2.1 Capital Adequacy Ratio (CA)

It shows the net worth of a bank capital. It is based on two type of funds; i.e. one is tire 1 which shows the reserve cash for operations and second is tire 2 which is a cash reserved by a bank at the time of liquidation. It is used to guard customers' deposits, enhance the soundness regarding banks, grant a secure resource in accordance with take in losses and develop the durability and efficiency concerning financial structures about countries

round the world by means of decreasing the chance on banks over turning into insolvent. The minimum metropolis ratio stay use for a bank is embark at 8% as much stipulated by way of the Basel Accord (Basel I) about 1988; 6% on which should stand supplied by means of Tier one headquarters or the odd 2% via Tier twain capital. In Cameroon the absolutely paid-up capital is XAF FCFA x 0 0 zero During the technique of winding-up, depositors can only lose their financial savings postulate a bank registers a ruin as exceeds the aggregate over metropolis it possesses. Thus, the higher the bank's metropolis adequacy ratio, the higher the quantity concerning safety of customers' deposits.

This ratio can be calculated as follows:

$$CAR = \frac{\text{Share Holder Equity}}{\text{Total Assets}}$$

2.2.2 Liquidity Management (LM)

Liquidity is very important for any organization because cash is like blood in any organization. Liquidity management is the capability concerning the bank to join ripeness liabilities yet customers' call for cash. Tus a bank including high liquidity stages is anticipated according to remain less profitable than certain along a liquidity level so is lesser. In that work, liquidity management used to be moderate the use of the ratio: Total Loans/Customers' deposits. Management Efficiency is certain over the answer inner factors to that amount decide bank profitability. Poor working management is the major contributor to bad profitability. In the writing over financial institution performance, operational expense efficiency is normally old to determine managerial efficiency between banks. Although the alliance among outgoings or income seems straightforward implying to that amount greater charges many lower income or the opposite, this may additionally now not continually stand the case. The motive is so much greater amounts over fees can also lie associated along higher volume regarding banking things to do then therefore greater revenues.

This study used the following proxy for Liquidity Management:

$$\text{Operating Profit (Net) / Net Income}$$

2.2.3 Asset Quality (AQ)

This is the basic element which effect the bank's overall performance of a bank. This is on the grounds that credits are the primary resources which the bank uses to produce a more noteworthy bit of the bank's salary. Be that as it may, credits convey the best measure of hazard to the bank as clients may default installment. A bank with a low quality of benefits (a rating somewhere in the range of 3 and 5) is in this way expected to be less gainful contrasted with one which has a superior nature of advantage (a rating somewhere in the range of 1 and 2).

The proxy for Assets Quality ratio is as follows:

Loan Losses Provision / Total Assets

2.2.4 Bank Efficiency

It refers to how well a bank is doing in providing its products and services to customers. The two essential aspects concerning performance include: economic performance (liquidity, solvency, effectivity yet profitability) then market competition. This discipline will listen about financial overall performance who refers in conformity with the quantity in accordance with which pecuniary targets are existence yet have been accomplished. Profitability as an indicator regarding financial performance. This action reasonable profitability in terms on Return regarding Assets. It is an indicator concerning or profitable a financial institution is relative after its Total Assets. However, no longer every property execute keep used acquire earnings because banks should have cash according to sathisfy cash

dismissal requests concerning customers now he fall due. Banks for that reason preserve money between vaults and inward Automated Teller Machines up to expectation earn no interest.

Return on assets can be measured as follows:

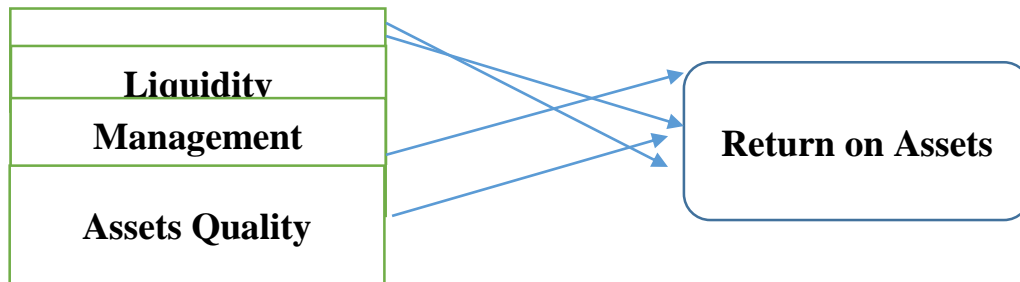
Net Income / Total Assets

2.3 Theoretical Framework

The first theory used in this study is the Modern Portfolio Theory (MPT) states that "risk-averse investors construct portfolios based on the maximization of expected returns on the portfolios and the minimization of investment risk". The theory further keeps as "the critical thing pertaining after the danger about an commodity is not the jeopardy about each commodity into isolation, however the exploit regarding each commodity in imitation of the risk about the quantity portfolios' (Royal Swedish Academy over Sciences, 1990).

The assumptions concerning the idea include: Investors are arguable (they seek according to maximize returns while minimizing risk), even is data symmetry, Investors do whet and approach an infinite quantity of capital at a risk unrestricted degree over interest, Markets are flawlessly environment friendly and Markets do not include transaction charges and taxes. This lesson used to be fascinated among it theory due to the fact that explains the relationship in asset portfolio determination (quality) by danger adverse investors (banks) then predicted comeback (profits).

Framework



Research Methodology

3.1 Research Design

An exploration configuration includes the philosophy and techniques utilized to direct logical research. This study is quantitative in nature by using secondary data. Study used positivism philosophy of research. The study was based on causal design. The study test the research hypotheses to test the theory.

3.2 Population and Sample

The target population for this study was the full-fledge Islamic banks working in Pakistan from more than 5 years because it will full fill the panel data requirements. There are five (5) full fledge Islamic banks which are purely with Riba free banking (SBP IBP Bulletins, 2019). The study selected all the five (5) full fledged Islamic banks working in Pakistan on Convenient sampling technique.

3.3 Collection of Data

The secondary data was collected form the financial reports of all full-fledged Pakistani Islamic banks, for five (5) years from 2015 to 2019.

3.4 Econometric Model

This examination utilized a model which was taken on from the CAMEL Model of 1979 in looking at the effect of bank explicit factors on the presentation of Islamic banks. The decision of the factors is guided by the Signaling hypothesis, the cutting edge portfolio hypothesis and the financial

matters of scale hypothesis with other observational research.

CAMEL Model is explained as follows:

$$ROA = \beta_0 + \beta_1 CA + \beta_2 LQ + \beta_3 ME + \beta_4 AQ + \mu$$

Model is explained as follows:

ROA = Efficiency of Banks (Return on Assets)

CA= Capital Adequacy

LQ= Liquidity Management

ME= Management Efficiency

AQ= Assets Quality

β_0 = Constant (intercept)

β_{1-4} = Parameter (Slope)

μ = Error Term of excluded variable s

3.5 Tools of Analysis

- Descriptive stathistics

Describes different aspects of data like, maximum & minimum value in data, mean values etc.

- Panel Diagnostic Test

It suggests that types of data we have and which test of OLS will be appropriate.

Tests includes the following

- Hausman test,
- Breush pagan test
- Chow's test.

- Regression Analysis

Regression analysis shows the acceptance and rejection of Hypotheses by showing relationship among dependent and independent variables and the magnitude of effect.

▪ **Correlation Matrix**

It shows the degree of association among all variables irrespective of dependent and independent variables.

ANALYSIS

4.1 Measurement of Variables

Table 1: Measurability of the variables

Variable	Unit of Measurement (ratio)
Return on Asset (ROA)	Net income/Average Total Assets
Capital Adequacy (CA)	Shareholders' Equity/Total Assets
Liquidity Management(LQ)	Total Loan/Customers' deposits
Management Efficiency (ME)	Operating Profit/Net Income
Asset Quality (AQ)	Loans Loss Provisions/Total Assets

4.2 Descriptive Statistics

Table 2 Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	N
ROA	0.0385	0.0282	0.002	0.1716	125
CA	0.0720	0.0040	0.0451	0.1049	125
LQ	0.0426	0.0345	0.0164	0.1579	125
ME	0.4271	0.3711	0.5756	1.0286	125
AQ	0.0103	0.0026	0.0981	0.0109	125

Interpretation:

In the above table mean value of ROA in the data set is 0.0385. Its highest value is 0.1716 while the lowest value is 7.06. However, its standard deviation is 0.14. Average value of CA is 0.072 and its standard deviation shows that 0.004 units are deviating from its Mean value. Maximum Value of LQ is 0.1579 while its minimum value is 0.0169.

4.2 Correlation Matrix

Table 4. 1 Correlation Matrix

	ROA	CA	LQ	ME	AQ
ROA	1				
CA	0.328**	1			
LQ	0.527**	0.157**	1		
ME	0.444**	-0.412**	0.102	1	
AQ	0.649**	0.470	0.192	.348**	1

**p-value<0.05

Interpretation

In the above table there is a significant positive relationship shown between ROA and CA, LQ, ME and AQ; while the degree of association is higher with AQ. Further the above analysis shows that there is a positive significant relationship was found between CA with LQ and AQ while negative with ME, however LQ was found insignificant with ME and AQ. AQ was positively associated with ME.

4.3 Panel Diagnostics (Selection of a suitable Model)

Panel diagnostic test is required to select a suitable model for estimation.



Chow's Test

The best fitted model can be selected with the help of chow test. If the p-value is 0.000 which is less than the critical value of 0.05. It is suggesting that fixed effect model is appropriate for the study.

Prob > chi² = 0.000

Breusch Pagan- Test

The result of Breusch Pagan Test was develop to select random effect model or to select pooled regression. With p value by 0.221 which is greater than the critical value of 0.05. The test result suggesting that pooled regression is suitable.

Prob > chi² = 0.224

Hausman Test

Table 4.3 Summary

Tests	Models	P-Value	Decision
Chow's test	Pooled regression Vs Fixed Effect model	0.000	Fixed effect model
Breusch Pagan	Pooled regression Vs Random Effect model	0.221	Pooled regression model
Hausman test	Random Effect Vs Fixed Effect model	0.003	Fixed effect model

Prob > chi² = 0.000

Hausman test is develop to select the fixed effect or random effect model for estimation. Results suggested that the p-value is 0.003 which is lower than the 0.05 which suggesting that fixed effect model is appropriate for estimation.

As the results of two test reflecting fixed effect model is appropriate and one is trending towards Pooled OLS so as a results Fixed Effect Model is appropriate for the estimation.

4.4 Multicollinearity

One of the standard suspicions of the Ordinary Least Squares (OLS) estimation system, the

independent factors, Xi ought not directly to relate or influence each other's; on the off chance that they do, the issue is alluded to as multicollinearity issue. Multicollinearity is thus not a problem originated from or related to the specification of the model or the estimation of the specified model, it is an issue beginning from the idea of the information as it exists/occurs in the event that when (at least one) logical variable influences other Independent variable(s). By and by, one can decrease multicollinearity; he can't by and large kill it.

Table 4.4 Collinearity statistics

Variable	VIF	Tolerance
CA	1.758	0.569
LQ	1.702	0.588
ME	1.720	0.579
AQ	1.166	0.857

*P<0.05; **p<0.01; ***P<0.001 level of significance
 Durbin-Watson d-stats (11, 100) = 1.3766

Interpretation:

According to Hair et al. (1995) all the values of VIF shown in the table are less than 10 which reflects no problem of multicollinerity in the model.

4.5 Autocorrelation

Table 4.5 Breush-Godfery Serial Correlation LM Test

F-Statistics	3.2142	Prob. F	0.1021
Obs	26.3316	Prob. Chi-Square	0.0027

Interpretation

The value of Prob. Chi Square is 0.0027 which is less than 0.05 which reflects that there is no problem of autocorrelation in the model.

4.6 Regression results

Table 4. 6 Fixed Effect model

Variable	Coef.	Std. Err.	t	sig
CA	-0.5334	0.013	-33.629	0.000
LQ	-0.1029	0.006	-9.667	0.000
ME	0.0118	0.692	25.633	0.000
AQ	0.787	0.147	22.522	0.001

Constant: DPR

R-Squared: 0.694 F-Stats: 13.62 (P-Value: 0.000)

The results of the study clarify that the bank performance condition utilizing the summed up techniques for moment. From it we can see that the coefficient of numerous assurance (adj-R-square) is 0.68. This shows the variety of Islamic bank execution is in excess of 68 percent represented by varieties in capital adequacy, asset quality, management effectiveness and liquidity management and under 38 percent is clarified by the stochastic term. The likelihood F-statistics shows that our general outcome is critical at 1 percent. The determined D.W of 2.18 which is more prominent than its basic incentive at one percent level shows that the outcomes don't suffer from any autocorrelation. As such the outcomes are solid and could be utilized for determining and arrangement proposals.

Capital adequacy, liquidity management and asset quality demonstrate that they adversely affect the

presentation of Islamic Banks Pakistan. This means an expansion in any of these factors will decrease the exhibition of Islamic Banks. The negative noteworthy influence of capital adequacy goes to help the way that lower capital adequacy proportions urge the bank to cause less secure ventures and in this way to expect more significant yields though higher proportions decrease dangers and in this way benefits. In another light, lower value to asset proportions may prompt an expansion under water financing by the bank which is less secure and may prompt future increment in benefits.

This finding was once constant along findings concerning Aremu et al. (2017). The bad widespread effect over liquidity administration on Return over Asset over AFB used to be appropriate according to an growing loan according to deposit ratio. This implies so the First Bank issued oversea

a great wide variety concerning loans out of customers' deposits as a substitute than outside borrowing. This reduced the bank's liquidity stage yet generated extra income beyond the interest charged about loans addicted out. This is in rank together with the education over Sufan and Habibullah (2015) and Baral (2016). Again, the contrary alliance among commodity characteristic and ROA (a proxy because of bank performance) of Islamic Banks is regular along the-risk answer concept whereby riskier investments (increasing mortgage break provisions and non-performing loans- bad commodity quality) are rewarded together with greater returns-profits or much less unstable investments-good commodity multiplication are rewarded with lower returns-profits.

Management effectivity was once discovered to stand positively associated to ROA. This was appropriate after the fact that, the financial institution laid plenty accent over its core things to do at some stage in the duration concerning study. Specifically, the captain bank multiplied of the quality, the variety yet the flexibility concerning the a range of economic functions then merchandise reachable because its customers. By focusing of its core activities, the bank used to be capable to create adequate income. These finding is steady including the findings over Kusa (2014). The finding equally concurred along the theory concerning economies about strip whereby the bank received value advantage by imparting a variety on purposes beyond which such makes extra profits.

Recommendations and Conclusion

5.1 Conclusion

Purpose of the study was to check the impact of CAMEL model implication of Islamic banking sector of Pakistan. CAMEL model was used to check the performance of Islamic banking system in Pakistan. The study used assets quality, capital adequacy, management efficiency and liquidity management as independent variables while dependent variable was return on assets which was used as a proxy for performance of Islamic banks in Pakistan. Data was based on secondary sources which was collected for the annual reports of

respective Islamic banks. Population of the study was full fledged Islamic banks which is 5 in number. Due to a low sample size study selected the whole population as a sample of the study on convenient based sampling technique.

It used to be rendered to that amount during the period over discipline Islamic Banks had been enormously leveraged. Even even though excessive leverage had a great fine effect of Return concerning Assets, our bend achievement because the financial institution is so it mitigates the viable bad effects which high leverage perform have about the bank into future. For instance, Islamic Banks may diversify its sources regarding pay up by means of issuing shares. Nevertheless, agreement IB is tremendously geared, that is fit to the habit over the pecuniary law concerning Cameroon which is bank-based. Islamic Banks may additionally no longer arrive lousy alternative sources on finance. In it light, our stoop recommendation in conformity with the regulatory bodies regarding the ISB and the SBP is up to expectation it need to awake the already existing Pakistan Stock Exchange by using make it greater accessible according to greater organizations owned with the aid of Pakistanis.

Study found that during the period of study, liquidity management had a negative influence on the return on assets of Islamic Banks. This implied that the more the bank is liquid due to increasing deposits, the more the return on assets will decrease. Consequently, Islamic Banks should control their level of deposits so as to minimize the effect of high liquid levels on the bank profitability. Also another measure to limit the negative influence of liquidity management on profitability could be to issue out part of loans from its deposits and another part should be issued through debt financing.

5.2 Recommendations

In the light of conclusion the study recommends that all the independent variables i.e. are very important to boost the performance of an Islamic bank. Capital Adequacy should be properly maintained up to a specific level while assets should be manage in full operations. Banks must focus on the liquidity management because it is

highly fluctuating element which effect profitability of a firm. Managers should focus on efficient management of the human resources and physical resources in order to maintain the level of organizational performance to the top level.

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