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Impact of Earnings Variability and Regulatory Measures on Income Smoothening in Islamic Banks

Evidence from an Emerging Market

Summary: This study focuses on identification of income smoothening practices and the impact of stringent regulations on income smoothening of Islamic banks listed on Pakistan Stock Exchange (PSX) for the period of 2010 to 2018. The frequency of income smoothing activities is evaluated through loan loss provisions (LLPs). Data has been retrieved through bank financial statements and financial statements analysis (FSA) issued by State Bank of Pakistan (SBP). In order to test income smoothening in Islamic banks, regression model has been employed. The findings of the study reveal that Islamic banks operating in Pakistan use income smoothening practices to achieve their objectives despite presence of Shariah Law. Further, the study also reveals that imposition of capital adequacy ratio through Basel Accords has significant and positive impact on reduction of income smoothing activities. Moreover, increase in the size of bank in terms of asset size has also positive impact through reduction of income smoothening in Islamic banks of Pakistan. Moreover, non-performing loans (NPL) and total loans (TL) also increase income smoothening. Similarly, GDP also increases income smoothening. The study provides sight not only for auditors and regulators but also for investors and general public. The study also highlights that there is a dire need for regulators to adopt strict and close monitoring on the distribution of earnings to avoid smoothening practices. Results also offer inputs to policymakers to customize their policies so that smoothening practices may be curtailed in Islamic banks and true picture be provided to investors about bank performance.

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Islamic banks play significant role in contouring economic growth. Despite its importance, very limited studies have focused on income smoothening and earning management practices in Islamic banks (Leventis, Dedoulis, & Abdelsalam, 2018). When lending exposure increases, some counter parties default in meeting their obligations by returning loans, which give rise to credit risk. Therefore, banks park certain amount in the shape of Loan Loss provisions (LLPs) to handle credit risk (Ozili & Outa, 2017). The concept LLPs is prevalent in conventional, Islamic and conventional banks with Islamic windows as well. Moreover, the same is witnessed by Elnahass, Izzeldin, & Abdelsalam (2014), who revealed that LLPs have positive value relevance in conventional as well as Islamic stream of banking business in Middle East and North African (MENA) region.

The operations of Islamic banks are governed under the Sharia guidelines, which makes them a bit unique from purely conventional banks (Taktak, et al., 2010). Overall, mixed results have been found in earning management practices being used by Islamic banks. Othman & Mersni (2014) studied smoothening practices in Islamic, conventional and conventional banks with Islamic windows and found that Islamic banks exercise discretionary provisions in earning and capital management through LLPs. Whereas, *Quttainah, Song, & Wu* (2013) found that Islamic banks are less inclined towards earning management practices. Pakistani Islamic banks market has shown growth of 12.9 percent in assets and 14.8 percent in the deposits in June 2018 as per statistics issued by Islamic banking bulletin of State Bank of Pakistan.[1] Further, SBP started implementation of Basel reforms in 2013 in phased and continuous manner in conventional as well as Islamic banks. It is implemented in Islamic banks with the aim that Shariah Compliant lenders also adhere to Basel Accords.[2] Therefore, Islamic banks must abide by the Shariah laws and earning management practices are reckoned quite unethical as they present a imprecise picture (Shawtari et al., 2015).

Banks plays a significant role in the economy and confront with many types of risks while provision of financial services (Elamer, Ntim, Abdou, Zalata, & Elmagrhi, 2019). The Basel Accords cater for credit, market and operational risks; to which banks have an obligation to reserve capital resources adequately to hedge any unexpected losses (Barakat & Hussainey, 2013; Elamer, Ntim, & Abdou, 2017). The Basel Accord I Accord requires banks to maintain regulatory capital at least to 8% of risk-weighted assets (Supervision, 2001). Whereas, Basel II focus on constraining risk-taking activities of the banks by imposition of higher capital requirements on riskier assets (Bancaria, 2004).The severe financial crises of 2007 and 2008 showed that Basel Accords II were not sufficient for the banking sector. Thereafter in 2009, Basel II were further refined, which lead to the publication of Basel III accord in 2010. Basel III Accord increases the quality as well as quantity of regulatory capital base and risk coverage of capital framework by further strengthening the risk management through tight regulations and governance of the banking sector (Rattanataipop, 2013).

Banks adjust their loan loss provisions (LLPs) when capital adequacy ratios are high or low. Regulatory pressure may result in reduction of risk exposures or engagement of income smoothening to reduce volatility in earnings. Banks with less capital adequacy ratio (CAR) might continue their risky activities to maintain their revenue streams. Accordingly, bank managers with less capital ratios trim down the volatility of earnings by using income smoothening activities.

Whereas, banks with high capital ratio, may not use income smoothing activities (Lim & Yong, 2017). This paper contributes to the existing line of research in numerous ways.

Firstly, this research begins from the significant role of Islamic banks in the economy and important of regulatory measures including Basel Accords impact on income smoothening, which is relatively less focused.

Secondly, this study integrates the impact of imposition of stringent regulations through.

Capital adequacy ratio (CAR) and gross domestic product (GDP) as control variable on provisioning behavior of bankers working in Islamic banks.

Thirdly, this research study also provides imminent findings for regulators who can play significant role in customizing regulations while keeping in view ground concerns. Fourthly, as a whole, it provides insights for investors and auditors, regarding detection of impact of stringent regulations and earning variability on income smoothening practices.

Lastly, the findings of this study also provide way forward for regulators and analysts to induce and suggest necessary changing's while keeping in view their impact. The rest of the paper is organized as follows. Section 2 describes the literature review and hypotheses development. Section3 presents the research design and sample selection which includes sample selection and data, model specification and variables and estimation strategy. Empirical results are discussed in section 4. Section 5 concludes the study.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The main purpose of earning management in Islamic banks to reduce earnings volatility by using opportunistic behavior; which is considered unethicalin Shariah law (Mersni & Othman, 2016). Banks use LLPs to smoothen earnings; which shows earnings of the banks quite stable to meet some financial reporting objectives. Earlier studies revealed that Islamic banks use LLPs as a safety net for meeting expected losses especially when earnings are on higher side. Moreover, when the earnings are on lower side, banks retain less Loan loss provisions(LLPs) during bad times and use from existing accumulated reserves in the earlier years to cater for actual loan losses in the current period (Greenawalt & Sinkey, 1988; Skała, 2015).

Earning variability impact on Loan Loss Provisions (LLPs)

LLPs are used by banks for income smoothening objectives including regulatory capital requirements (Ozili & Outa, 2017). Banks use non-discretionary and discretionary accruals to manage their financial distress (Malik et al, 2019). Moreover, bank mangers use discretionary powers in estimation of LLPs to lower earnings variability and to smoothen their income streams (Agarwal et al, 2007; Kim & Kross, 1998; Skała, 2015). Central European banks also manage earnings variability by using loan loss provisions for smoothening of income streams (Skała, 2015). Earlier studies have found mixed results in case of income smoothening. Islamic banks and conventional banks with Islamic windows in Middle east use earning management practices (Othman & Mersni, 2014). Likewise, *Taktak, Zouari, & Boudriga* (2010) revealed that Islamic banks use LLPs to smoothen earnings variability. Further, *Shawtari et al.* (2015) also found that earning management practices are employed by Islamic banks to manage variability in the earnings. Whereas, *Farook, Hassan, & Clinch,*

(2014); *Othman & Mersni,* (2014); *Quttainah et al.,* (2013) found quite opposite results that Islamic banks do less earning management through loan loss provisions (LLPs). In view of the above literature, we can develop the following testable hypothesis:

H₁: There is relationship between loan loss provisions (LLPs) and earnings before tax and provisions (EBTP).

Capital Adequacy Ratio and Income Smoothing

Certain amount of capital is maintained as per the requirement of regulators is termed as Capital adequacy. It usually gives coverage to the bank for majority of risks which are uncertain as well as uninsured. It counter systemic fragilities and helps to ensure that banks have sufficient capital buffer to face the unexpected losses and provides assurance to all stakeholders including investors as well as rating agencies[3]. Basel I was implemented in Pakistan to account for credit risk in 1997 by the State Bank of Pakistan (SBP). Revised version of Basel I was introduced in 2004, which incorporated calculation of risk weighted assets for the market risk as well. Basel II was implemented in the year 2008, which required banks to calculate their risk-based capital adequacy ratio (CAR) against credit, market as well as operational risks. Later on, SBP implemented Basel III in a phased manner.[4] In Basel III, leverage ratio was also incorporated as the third capital standard; it was implemented in analogous from the end of first of quarter of year 2014. Therefore, we have used CAR as regulatory measure in this study.[5]

Increased regulatory pressure develops due to governance measures like Basel Accords in the form of maintenance of greater capital adequacy ratio which ultimately effects income smoothing activities of the banks. Therefore, it is hypothesized that stringent implementation of capital adequacy ratios, amplifies weight on the bank managers to involve in less income smoothing. The Capital Adequacy ratio hypothesis bicker that bank managers also uses LLPs as a cushion to cater for the shortfall especially when faced with adherence for the minimum capital ratios. In Basel period, European banks used income smoothening by using loan loss provisioning practices (Vasilakopoulos, et al, 2019). Regulations in MFIs of Latin American countries during the year 2005-2017 has positive impact on the performance by catering their clients in better way (Amin, et al, 2018). Earlier studies found negative association among LLPs and bank capital maintained for adequacy purpose (Kim & Kross, 1998; Ahmed et al., 1999; Das & Ghosh, 2007). Moreover, findings also reveal that Islamic banks in the Middle East region use income smoothing practices through capital management (Othman & Mersni, 2014). In view of the above literature, we can develop the following testable hypothesis:

H₂: There is a significant negative relationship between loan loss provisions (LLPs) and capital adequacy ratios (CAR).

Total Loans (TL) and Income Smoothing

Total Loans (TL) is also one of the important components in earnings management. The outstanding loans provides the risk profile of the banks (Taktak et al., 2010). The probability of default rises usually when the

ratio of total loans is on higher side. Moreover, there is also positive association among total loans and loan loss provisions (Adzis, Tripe, & Dunmore, 2010). Increase in growth in total loans rises credit risk by increasing the uncollectable loans which results in increasing the buffer through loan loss provisioning to meet the losses (Sulong & Mohd Noor, 2018). The findings of this study are consistent with the results of *Dushku* (2016). On the basis of above cited literature, we suggest the following hypothesis.

H₃: The extent of income smoothing through loan loss provisions (LLPs) is positively related to total loans (TL).

Non-performing loans (NPL) and Income Smoothing

Certainly; bank managers do not completely assess and properly monitor the loan portfolio; owing to lack of evaluation skills or any other reason; which gives rise to non-performing loans and ultimately result in inefficiency. This forms the basis for the hypothesis that non-performing loans requires greater amount of loan loss provision (LLPs), which resultantly takes the form of earnings management. As a consequence, bank managers boost their earnings by exercising their discretion in provisioning (Berger & Humphrey, 1997; Shawtari et al., 2015). On the basis of above cited literature, we suggest the following hypothesis.

H₄: There is positive association between non-performing loans (NPL) and income smoothening through loan loss provisions (LLPs).

RESEARCH DESIGN

Sample Selection and Data

This study has used a sample of twenty one Islamic banks listed on Pakistan Stock exchange (PSX)[6] during the year 2010 to 2018. Out of 21 banks, five banks are purely Islamic as per Islamic banking bulletin, branch network 2018. Whereas, the rest of the 16 are standalone Islamic banking branches of conventional banks. Banks specific variables data has been retrieved from the financial statement analysis published by State Bank of Pakistan (SBP) for the period 2010-2018. It is a comprehensive and reliable data source, which provides consolidated information on the financial sector of the country. Furthermore, the data pertaining to capital adequacy ratio (CAR) has been hand collected from the annual reports of the sample banks. Whereas, data pertaining to Gross domestic product (GDP) has been taken from World Bank Website.[7]

Model Specifications and variables

To study the impact of variability in earnings on loan loss provisions (LLPs), capital adequacy ratio (CAR) of purely Islamic banks and conventional banks with Islamic windows. We have specified the following econometric model:

$$LLP_{it}=\beta_0+\beta_1 TL_{it}+\beta_2 SIZE_{it}+\beta_3 NPL_{it}+ \beta_4 EBTP_{it}+\beta_5 CAR_{it}+\beta_6 GDP_{it}+\varepsilon_{it} \qquad (1)$$

Whereas:

LLP_{it} = Loan loss provision of the bank at time t. LLP is considered as the dependent variable.

TL_{it} = Total loans of bank i in year t. Total outstanding loans shows risk profile of the

banks (Taktak et al., 2010). Default probability increases when the outstanding total loans are on higher side. Moreover, total loans also have positive linkage with loan loss provision (Adzis et al., 2010; Dushku, 2016; Sulong & Mohd Noor, 2018).

$SIZE_{it}$ = Total assets of bank i in year t. It is used as control variable. Total asset is the important proxy used to measure size of the bank (Fernando & Ekanayake, 2015).

NPL_{it} = Nonperforming loans of bank i in year t. It is also used for the measuring the default risk (Ahmed et al., 1999; Collins, Shackelford, & Wahlen, 1995). A positive coefficient portray that LLPs increase with the increase in non-performing loans, which reflect deterioration in the quality of loans extended by the banks (Adzis et al., 2010; Bouvatier & Lepetit, 2008; Dong, Liu, & Hu, 2012). Therefore, NPL is expected to have a positive relationship with loan loss provisions (LLPs).

$EBTP_{it}$ = Earnings before taxes and provisions bank i in year t. It is used as the proxy for testing the evidence of income smoothing. Positive coefficient of EBTP demonstrates that there is evidence of income smoothing. Usually banks increase LLPs when income is on higher side and decrease when income falls (Ahmed et al., 1999; Barakat & Hussainey, 2013; Othman & Mersni, 2014; Shawtari et al., 2015; Taktak et al., 2010)

CAR_{it} = Capital adequacy ratio of bank i in year t. Earlier studies also control for the CAR effect on LLPs and increase in CAR reduces LLPs (Ahmed et al., 1999; Das & Ghosh, 2007; Dong et al., 2012; Kim & Kross, 1998; Shawtari et al., 2015)

GDP_{it} = The rate of growth of gross domestic product in year t is used in the literature to proxy the business cycle. Earlier studies found negative relationship between LLPs and GDP; which confirms that provisioning is procyclical. Banks usually increase provisioning during

economic downturns and decrease during upswings. It shows that banks are quite forward looking in risk estimation (Bikker & Hu, 2002; Dushku, 2016).

Estimation Strategy

We employed panel regression to examine the impact of earnings variability, capital adequacy and Gross domestic product on income smoothing in the purely Islamic banks and standalone Islamic banking branches of conventional banks of Pakistan. The data of the banks is balanced panel. Further, panel regression has been used due to cross sectional nature of data and endogeneity problem. Panel regression has been employed to correct for potential correlation of endogenous explanatory variables with error term in equation making as the Ordinary Least Square (OLS) estimator is no longer consistent. The study estimates a linear regression model through OLS with some modification that is based on (Taktak et al., 2010).

EMPIRICAL RESULTS

Descriptive Statistics

The descriptive statistics of the key variables has been estimated. It reports descriptive statistics of the dependent and independent variables. Descriptive statistics include the mean, median, maximum, minimum, standard deviation, Skewness and Kurtosis of the variables of twenty one banks listed at Pakistan Stock Exchange from year 2010 to 2018.

Table 1 exhibits descriptive statistics of the variables used in this study. Annual observations of banks listed on PSX have been utilized over the period of 2010-2018.

DESCRIPTIVE STATISTICS OF THE VARIABLES
(PAKISTAN RS IN MILLIONS)

Variables	Mean	Median	Max	Min	Std. D.	Skew	Kurt	Obs
LLP	0.4675	0.4500	0.8531	0.0530	0.1241	0.2294	4.4697	122
TL	0.4417	0.4418	0.7283	0.0085	0.1194	−0.7564	4.9310	122
SIZE	19.5041	19.6174	22.2756	17.1072	1.0380	0.0042	2.3566	122
NPL	0.0602	0.0490	0.3378	0.0000	0.0508	2.4333	11.4411	122
EBTP	0.0637	0.0638	0.1310	−0.1091	0.0237	−3.0837	25.4803	122
CAR	14.2221	14.2400	25.1000	0.0000	4.6661	−0.2265	3.3962	122
GDP	3.6286	4.3965	4.7311	1.6067	1.1422	−0.6559	2.0045	122

Source: own edited

The dependent variable includes is the Loan Loss Provisions (LLP). Whereas, total loans (TL), Size in terms of total assets(SIZE), non-performing loans(NPL), earnings before taxes and provisions (EBTP), capital adequacy ratio (CAR) and gross domestic product(GDP).

Table 1 shows the descriptive statistics for all the variables used in the estimation of this study. The mean ratio of LLPs is 46.75% with a maximum of 85.31% and minimum of 5.30%. The standard deviation of LLPs is 12.41%, which represent the differences in LLP practices used by banks in our sample. The mean ratio of total loans is 44.17% with a maximum of 72.83% and minimum of 0.85%, which represent allocation of banks TL and investment to the LLPs. The standard deviation of TL is 11.94% shows the differences in total loans ratios among Islamic banks sample used in this study. The mean of SIZE in terms of total assets is 19.50%, which size of banks with the maximum of 22.27% and minimum of 17.10% with the standard deviation of 1.03%. The mean of NPL is 6.02%, which shows quality of loans extended by the banks, with the maximum of 33.78% and minimum of zero percent with

the standard deviation of 5.08%. The mean of EBTP is 6.37% with a maximum of 13.10% and minimum of -10.91% with the standard deviation of 2.37%. The mean of CAR is 14.22% with the maximum of 25.10% and minimum of 0%. The standard deviation of CAR is 4.66%, which shows differences in amount of capital held by bank as per the requirement of financial regulator. The mean of GDP is 3.62% with the maximum of 4.73% and minimum of 1.60% with the standard deviation of 1.14%.

Correlation Matrix

Correlation analysis is conducted to find the relationship of the independent variables. The correlation matrix shows all the independent variables including capital adequacy ratio(CAR), earnings before taxes and provisions (EBTP), gross domestic product(GDP), loan loss provisions(LLPs), non-performing loans(NPL), size in terms of total assets(SIZE) and total loans (TL).

Table 2 exhibits the results of income smoothing and imposition of regulatory measures in the sample of Pakistani pure

CORRELATION MATRIX

	CAR	EBTP	GDP	LLP	NPL	SIZE	TL
CAR	1	0.3093	0.1269	−0.4877	−0.6145	0.0822	−0.2774
EBTP	0.3093	1	−0.2822	0.0072	−0.0947	0.2130	−0.0485
GDP	0.1269	−0.2822	1	−0.3144	−0.2479	0.2067	−0.3151
LLP	−0.4877	0.0072	−0.3144	1	0.4660	−0.2938	0.6769
NPL	−0.6145	−0.0947	−0.2479	0.4660	1	−0.1310	0.1422
SIZE	0.0822	0.2130	0.2067	−0.2938	−0.1310	1	−0.3281
TL	−0.2774	−0.0485	−0.3151	0.6769	0.1422	−0.3281	1

Source: own edited

Islamic Banks and standalone Islamic banking branches of conventional banks for the year 2010 to 2018. The results of correlation matrix show that regression does not suffer from serious multicollinearity problems as the explanatory variables in the correlation matrix do not highly correlate with each other. The coefficient of EBTP is positive but affirms less evidence of income smoothing represented by LLP which is in contrary to the evidence that loan loss provisions will increase when net incomes are high and decrease when net income fall (Ahmed et al., 1999). Moreover, the correlation between TL, NPL and LLP is positive, which means increase in the total loans, non-performing loans increases income smoothening. Whereas, there is negative relationship between CAR, SIZE, GDP and LLP which shows that increase in the amount of capital held by bank as per the requirement of financial regulator, size of the bank in terms of assets and the total value of goods produced and services provided in country represented through GDP reduces income smoothening in banks.

Regression Results

Table 3 shows the results of the fixed and random effect with the aim to determine the effect of income smoothing in Islamic banks through loan loss provisions (LLPs). Fixed effect results are reported in Column 3 of Table 3, we observed positive impact of EBTP, TL, NPL and GDP on LLP. Whereas, there is negative relationship between CAR, SIZE and LLP for purely Islamic banks and conventional banks with standalone Islamic branches listed on PSX. The model explains 99.3% of variation in LLP due to the explanatory variables. It is important to highlight that the relationship between EBTP and LLP is positive and significant at 1% level and similar to the results (Ahmed et al., 1999; Barakat & Hussainey, 2013; Othman & Mersni, 2014; Shawtari et al., 2015; Taktak et al., 2010). The significant positive sign between LLP and EBTP suggest that Islamic banks and conventional banks with Islamic windows in Pakistan are engaged in income smoothening activities. The positive significant relationship between NPL, TL and LLP also indicates as

RESULTS OF THE REGRESSION MODEL

Variables	Signs	Fixed Effect	Random Effect
Constans		0.218468 **(0.00000)*****	0.956433 **(0.00000)*****
TL	+/−	0.962888 **(0.00000)*****	0.581522 **(0.00000)*****
SIZE	+/−	−0.00927 **(0.00000)*****	−0.03910 **(0.00000)*****
NPL	+/−	0.026842 (0.737500)*	0.312726 (0.425800)**
EBTP	+	0.075832 **(0.00680)*****	0.631166 **(0.00060)*****
CAR	−	−0.000390 (0.124000)*	−0.003610 (0.020200)***
GDP	−	0.000973 (0.232900)**	0.002049 (0.754800)*
Adjusted R-squared		0.993055	0.692969
F-statistic		666.487300	46.516160
Hausman Test x^2		6 (1,000000)	

***Statistical significance at the 1%, **Statistical significance at the 5% level, *Statistical significance at the 10% level

Source: own edited

expected that there is positive and significant relation between non-performing loans NPL and LLPs which shows that banks income smoothening increases as a result of increase in non-performing loans. Moreover, there is also positive and significant relationship between TL and LLPs at 1% significant level, which demonstrate that increase in loans growth result in higher credit risk which in turn results in increase in income smoothing activities in Pakistani Islamic banks. The findings of this study are consistent with the results of Adzis et al., 2010; Dushku, 2016; Sulong & *Mohd Noor*, 2018.

As expected, relationship between CAR and LLPs is negative but insignificant at 10%

significance level, which means imposition of stringent regulations through CAR due to Basel Accords, has reduced income smoothing practices in Islamic banks and conventional banks with Islamic windows. Moreover, there is also negative and significant relationship between SIZE and LLP, which shows that size of Islamic banks plays less pronounced role in income smoothening in Islamic banks of Pakistan. The results are in accordance with Ahmed et al., 1999; *Das* & *Ghosh*, 2007; *Dong* et al., 2012; *Kim* & *Kross*, 1998; Shawtari et al., 2015).

Fixed effect results are presented in Colum 3. Random effect results are exported in Colum 4 of *Table 3.* Dependent variable includes

Loan Loss Provisions (LLP), and independent variables are total loans (TL), SIZE in terms of total assets (SIZE), non-performing loans (NPL), earnings before taxes and provisions (EBTP), capital adequacy ratio (CAR) and gross domestic product (GDP).

Furthermore, panel regression estimation technique has been used for two reasons: Firstly, due to cross-sectional nature of data. Secondly, to incorporate the possible endogeneity problem in data. Column 4 of Table 3 depicts the results of random effect. Further, we employed Hausman test to retain the results of fixed or random effect. The Hausman test suggest (x^2=6, p-value = (1.000)) whereas p-value is not significant. Therefore, we retain the results of random effect.

The results of random effect shown in Column 4 of Table 3. EBTP reveals that there is positive and significant relationship between EBTP and LLP at 1% significance level. Increase in EBTP has resulted in increase in income smoothing which shows that manipulation activities increase as a result of increase of earnings before tax and provisions (EBTPs) probably because of information asymmetry. The findings of this study are consistent with the results of (Ahmed et al., 1999; Barakat & Hussainey, 2013; Othman & Mersni, 2014; Shawtari et al., 2015; Taktak et al., 2010) which also reveals that Islamic banks have opportunistic behavior which is against the Islamic ethical and moral principle.

Total loans have been included to learn more about the impact of loans on income smoothening in Pakistan Islamic banks. Moreover, there is also positive and significant relationship between and LLPs at 1% significant level, which demonstrate that increase in loans growth result in higher credit risk which in turn results in increase in income smoothing in Pakistani Islamic banks. The findings of this study are consistent with the results of Adzis et al., 2010; Dushku, 2016; *Sulong* & Mohd Noor, 2018.

Total Assets is also an important indicator. The estimation test shows that there is negative and significant relationship between bank size in terms of total assets (SIZE) and LLPs at 1% significance level, which shows that size of Islamic banks plays less pronounced role in income smoothening in Islamic banks of Pakistan. The results are in accordance with (Shawtari et al., 2015). Non-performing loans as a ratio of total loans is a measure of bank default probability. As we expected, there is positive and significant relation between non-performing loans (NPL) and LLPs which shows that banks income smoothening increases as a result of increase in non-performing loans. Therefore, Islamic banks in Pakistan have forward looking approach towards credit risk and creating provisions. The findings of this study are in line with the study of (Dushku, 2016; Shawtari et al., 2015).

Whereas, there is negative and significant relationship between capital adequacy ratio (CAR) and loan loss provisions (LLP) at 1% significance level, which means imposition of higher capital adequacy ratio through imposition of Basel Accords, has resulted in reduction in income smoothing in the banks. The findings of this study are consistent with the results of (Ahmed et al., 1999; Das & Ghosh, 2007; Dong et al., 2012; Kim & Kross, 1998; Shawtari et al., 2015). GDP has been used as control variable to study its impact on income smoothening. There is positive and significant relationship between GDP and LLP at 10% significance level, which is opposite to the expectation. Increase in GDP has resulted in increase in income smoothing which shows that manipulation activities increase as a result of increase in the output of a country.

In summary, the overall estimations demonstrate that, Pakistani Islamic banks do income smoothening by using LLPs when

earnings increase by ignoring their ethical identity which is mentioned in Shariah Law. Whereas further analysis also reveals that imposition of capital adequacy ratio through Basel Accords has significant and positive impact on reduction of income smoothing activities. Imposition of stringent rules, which exert greater regulatory pressure on banks after Basel Accords II and III. Moreover, non-performing loans (NPL), total loans (TL) also increases income smoothening. Similarly, GDP also increases income smoothening. Whereas, increase in the size of bank in term of asset size has also positive impact through reduction of income smoothening in Islamic banks of Pakistan.

CONCLUSION AND RECOMMENDATIONS

The study investigated the relationship between income smoothening practices and the impact of stringent regulations impact on income smoothening to level of income variability in Islamic banks listed on Pakistan Stock Exchange (PSX) for the period of 2010 to 2018. The frequency of income smoothing activities is evaluated through loan loss provisions (LLPs). The findings of the study reveal that Islamic banks operating in Pakistan use income smoothening practices to achieve their objectives. In line with the expectation, Islamic banks use smoothening practices through LLPs by ignoring the ethical guidelines mentioned in the Shariah Law. Moreover, imposition of capital adequacy ratio through Basel Accords has significant and positive impact on reduction of income smoothing activities. Similarly, for increase in the size of bank in term of asset size has also positive impact through reduction of income smoothening in Islamic banks of Pakistan. Similarly, increase in the size of bank in term of asset size has also positive impact through reduction of income smoothening in Islamic banks of Pakistan. Whereas, non-performing loans (NPL), total loans (TL) and gross domestic product (GDP) also increases income smoothening. Similarly, GDP also increases income smoothening.

The study suggests useful measures for auditors, regulators, investors and general public regarding Islamic Banks. This study also recommends that regulators should adopt strict as well as close monitoring on the distribution of earnings to avoid smoothening practices in Islamic banks. The study also provides imminent findings for regulators who can play significant role in customizing regulations while keeping in view real and on ground concerns. Moreover, this study also offers important inputs to policymakers to reframe their policies so that smoothening practices may be curtailed in Islamic banks and true picture be provided to investors about bank performance.

Notes

1 http://www.sbp.org.pk/ibd/bulletin/2018/Jun. pdf – retrieved on 18 March 2019

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[6] Formally Karachi Stock Exchange (KSE)

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