

# DECODING RISK MANAGEMENT PRACTICES IN PAKISTANI FINANCIAL INSTITUTIONS: A FOCUS ON PRIVATE SECTOR BANKS

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**Abstract.** *The primary aim of study is to decode risk management practices in Pakistani financial institutions. Five point Likert scale questionnaire*

*was adopted for the assessment of various characteristics of risk management: i.e. risk identification, risk monitoring, risk assessment and analysis, risk management practices, credit risk analysis and liquidity risk analysis. A total of 400 questionnaires were distributed and three hundred and eighteen had been properly returned from the banking institutions operating in Pakistan. Various analytical models such as Pearson correlation and Regression model was used for evaluation. The outcome from analysis illustrates that institutions in the banking sector of Pakistan are resourceful in monitoring and understanding of credit risk analysis. To achieve higher performance and revenue streams, banking institutions are advised to adopt rigorous risk management practices. Bank employees need sufficient financial education to enable them to perform risk management practices and gain a competitive market position*

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## 1. Introduction

It is said that generals often plan to fight the last war. A decade after the collapse of Lehman Brothers, many financial specialists scared a new financial catastrophe. Furthermore, the global financial system is much more vigorous than before 2008, but the global economy is still threatened by excessive debt. The worldwide financial crisis has had profound effects on the world economy. It has been considered a dire year for global stock and bonds, overall market cap declines to shape up to be second-worst on record with the overall global bond and equity universe shrinking by a cumulative \$5 trn since the start of 2018-the most significant contraction of the capital market since the financial

crisis. In 2008 the global equity market shrank by more than \$18tn, even as the bond market was buoyed by investors desperate for the relative safety it offers.

Total global debts have increased by US \$ 57 trillion to US \$ 199 trillion since 2007, which includes government borrowing to fund bailouts (Van Dijk, 2013). Beyond economic cost, the social cost of financial crisis can be significant, including unemployment, a reduction in life expectancy, inflation and a decline in the availability of education for children, and an increase in global poverty level can be huge. The financial crisis plunged most rapidly growing and successful economies in the world into financial chaos and deep depression.

The financial turmoil instigated due to risky aspect within the financial system itself. A large-scale of leveraged investment banks involved in the worthless business of vast volumes of complex credit securities and derivatives (Fox, 2018). Different categories of financing kept the system susceptible. Banking institutions operated injudiciously with lower equity percentages so that after the market collapse emerged, counterparties questioned their solvency, the worldwide interbank money market had frozen, creating a real threat of financial failure.

One of the paradoxes of the 2007-08 worldwide financial catastrophe is that the crisis blows up in a period when risk management was momentous to the management of prevalent and mature financial institutions (Shin, 2010). Risk management becomes more pivotal for financial institutions that see their role as lucrative by taking the prudent risk.

For the past few years, risk management has taken center stage and become an emerging issue for academicians, investors, customers, and regulators (Hopkin, 2017). Financial crises almost paralyzed the financial market and exposed considerable vulnerabilities within banks risk management practices (RMPs).

Effective RMPs have immense importance because financial institutions will not only enhance efficiency but also improve profitability by adopting effective mechanisms for RMPs. The lack of adequate practices in risk management could make the situation more unstable and worse. Risk can exist in every setup, supported by unpredictability. Proper identification, assessment, and management of risk can provide support to any structure correcting its strategic goals. Risks cannot be controlled entirely and so as the unpredictable consequences.

The dramatic corporate failure of Lehman Brother, General Motors, Linen-N-Thing, and AIG in the last few years raised serious concern significant lapses in RMPs (Cohen, Krishnamoorthy, & Wright, 2017). Today most of the

financial institutions claimed that their businesses become very competitive by instigating and adopting the useful RMP. Conversely, ineffective RMP leave firms and financial institutions more exposed to shocks than they could be (Rampini, Viswanathan, & Vuilleme, 2017).

Financial institutions offer many financial services to its customers which are full of risk. There is a link between risk and return, therefore, it is imperative that financial institutions increase the wealth of the shareholder and portray the firm financial status along with its risk. Inadequate risk management practices affect the company's financial health as well as the risk identification, evaluation and disclosure process. After the financial meltdown of 2007 - 08, the risk management practices of financial institutions gain more considerable attention. Many research scholars interpreted the collapse of several banks during the financial collapse as a consequence of inadequate risk management practices, negligent risk tendencies and also the failure of a theoretical model which affected the global economic system (Jones, Cowe, & Trevillion, 2018). Today's financial institutions and their top management must be able to demonstrate and address frequent and often abrupt changes driven by political events, new market development, technological advancement, and other diverse environmental hazards. These risks affect the activities of all businesses without regard to their size and very communities they operate in (Andersen & Schröder, 2010).

A financial institution operating in Pakistan overlooks certain specific actions that lead to significant losses. Banks in Pakistan fulfill the Basel II standard, which makes clear that minimum capital requirement must be retained. Banks operating in Pakistan face different categories of risks that include, liquidity risk, interest rate risk, market, credit and foreign exchange risk (Shafiq & Nasr, 2010). Financial futures, swaps, options, equities bonds, commitment and guarantees, trade financing and exchange transaction also exposed banks to risk. Growing market demand has increased people's interest in the financial industry, and research interest in this field is escalated. In current research the following research objective is focused.

1. To investigate the understanding level of risk management practices in banks in Pakistan.

## **2. Literature Review**

According to Baber (2018) the Banking institutions main activity is to lend money and gain interest-based profits. The lending activities exposed the bank to risk of default where the borrower becomes insolvent or unable to pay the money back in specified period. According to Acharya (2018) following the

2007-8 banking crises bank exposure to sovereign debt have increased dramatically in many countries including developed economies. It generated bankruptcy and losses in large banks. Risk can create problems in accomplishing specific targets. Because of its massive exposure, the banking sector is often associated with risks (Muhammad, Khan, & Xu, 2018). Risk management system arose as a framework with focus on improved governance. It theoretically minimizes the instability of cash flow, information risk and agency risk, which eventually lowering a company risk of default and anticipated cost of financial difficulty. The implementation of risk management system is negatively associated with credit default swap (Lundqvist, Vilhelmsson, & Insurance, 2018).

According to Kariu and Mungai (2018) commercial banks with better loan portfolio with reasonable efficiency rate are those utilizing information technology in risk management. Risk analysis, risk evaluation and risk reduction strategies affect the performance of unsecured loans in commercial bank. They are the most critical factors which contribute positively to greater loan portfolio performance. It also enables the organization in predicting client's default probability that ultimate help in limiting uncertainty and unacceptable losses.

Boissay, Collard, and Smets (2016) used dynamic stochastic general equilibrium model and found that asymmetric information and moral hazard lead to credit crunches, market freezes, banks crisis and financial distress.

It is argued that risk has a significant impact on commercial bank competitiveness (Abiola & Olausi, 2014; Annor & Obeng, 2017; Iftikhar, 2016). It is an indication of ineffective risk management practices (Khan & Ahmed, 2001).

According to Ariffin, Archer, and Karim (2009) in the Islamic banking system, the credit risk is considered as among the critical risks. As reported by Felix Ayadi et al. (2008) differences were observed in credit risk management component in commercial banks among developing and advanced economies. This shows that business environment is an essential factor for a workable system of risk management.

As far as effectiveness is concerned, the study by Hassan (2009) showed dissimilar Islamic Banks RMP in Brunei Darussalam in comparison with that of the conventional banks. The primary concern that deserves more attention are operational risk, default risk, and foreign exchange risk. The most influential variables in Islamic banks were reported risk assessment and risk identification. Khalid and Amjad (2012) used the model suggested by Powers, Hassan Al-Tamimi, and Mohammed Al-Mazrooei (2007) revealed that the risk

management practices of Islamic banks are more efficient. They confirmed that the most essential aspects of RMP are risk understanding, risk monitoring, and credit risk. Rosman (2009) found a positive connection between RMP and different aspects of risk management.

### 3. Research Method

#### 3.1. Data collection

The data was obtained from Pakistani based Islamic and conventional banks. Total 400 questionnaires were distributed among employees in the Pakistani banks including credit officers and bank managers. The web-based platform was utilized to easily accessible via social networks and email services. 318 out of 400 questionnaires are duly filled up and returned, the rate of response was 79.50 % which facilitate the generalization of the findings. The questionnaire used in this study with some modification was adopted from Powers et al. (2007).

#### 3.2. Research Hypothesis

Risk management is not only essential for organizational profitability but also help to mitigate risk exposure of different sorts (Florio & Leoni, 2017). Effective risk management practices facilitate organizations to optimize their ability of addressing risks (Lechner & Gatzert, 2018). The hypothesis formulated to achieve the objectives of the research:

H1: There is a positive relationship between RMP and UR, CRA, RI, RM, RAA and LRA.

#### 3.3. Statistical Model

The statistical model used in this study was adopted from (Powers et al., 2007) used for comparison to the RMP of National and foreign banks working in UAE.

$$RMP = f (URM, RI, RAA, RM, CRA, LRA)$$



Figure 1 Model of Risk Management Practices

## 4. Results and Discussion

### 4.1. Reliability Analysis

Cronbach's alpha test is commonly used by various researchers in their studies, usually as a measure of the reliability of a score to summarize the information of several items in questionnaires (Taber, 2017). According to (Vaske, Beaman, & Sponarski, 2017) this scale estimates the internal consistency of responses in multi-item bipolar scales.

Table: 1 *Statistics Regarding Scale Alpha Value and its Qualitative Strength*

Cronbach's alpha value	Description
0.93–0.94	Excellent
0.91–0.93	Strong
0.84–0.90	Reliable
0.81	Robust
0.76–0.95	Fairly High
0.73–0.95	High
0.70–0.77	Relatively high
0.68	Slightly Low
0.67–0.87	Reasonable
0.64–0.85	Adequate
0.61–0.65	Moderate
0.58–0.97	Satisfactory
0.45–0.98	Acceptable
0.45–0.96	Sufficient
0.4–0.55	Not satisfactory
0.11	Low

Sources: *Taber (2017)*

The overall Cronbach's alpha value of the seven variables used in this study is presented in the following Table 2.

Table: 2 *Statistics about Alpha Values of the Current Scale*

#	Questions	No. of Questions	Cronbach's Alpha	Description
1	Understanding risk and risk management	07	0.705	Relatively High
2	Risk Identification	07	0.688	Reasonable
3	Risk Assessment analysis	07	0.749	Relatively High
4	Risk Monitoring	07	0.663	Adequate
5	Risk management practices	08	0.768	Relatively High
6	Credit risk analysis	07	0.786	Relatively High
7	Liquidity risk Analysis	07	0.788	Relatively High

## 4.2. Descriptive statistics

Descriptive statistics provide a summary of essential features of all variables in the study in a manageable form (Trochim & Donnelly, 2001).

Table 3 *Descriptive Statistics of the Current Scale (N=318)*

	Minimum	Maximum	Mean	St. Deviation	Skewness	Kurtosis
RMP	3.00	4.75	3.9	0.34	-0.20	-0.51
URM	2.50	4.75	3.96	0.42	-0.70	-0.02
RI	2.25	4.50	3.58	0.52	-0.51	0.09
RAA	2.80	4.80	3.93	0.39	-0.58	-0.18
RM	3.00	4.50	3.93	0.32	-0.35	-0.25
CRA	2.00	5.00	3.71	0.55	-0.49	-0.34
LRA	2.33	4.17	3.36	0.36	-0.60	0.50

We have 318 observations in the above results. The mean score of RMP is 3.8958 showed that staff members employed in banks understand the risk and have full awareness of risk management. Understanding risk is an integral part of risk identification. A risk poorly identified means the bank's managers will fail to communicate the risk to top management, stakeholders or team members. The mean score of risk identification 3.5802 shown in above Table 4.3 reveals that bank managers are competent and conscious about risk identification process with the institution's main objectives. The mean score or risk assessment 3.9264 shows that banks in Pakistan adopted the modern world quantitative methods including Monti Carlo Simulation and frequency and severity distribution to avoid or minimize potential risk and losses. The mean score of risk monitoring 3.9285 indicates that risk monitoring is an essential element of risk management process — efficient risk monitoring help to detect risky events at an early stage. Banks in Pakistan adopted various tools for risk controlling and monitoring including risk audit, trend analysis, risk reassessment, status meeting and reserve analysis.

## 4.3. Pearson correlation

Table 4 showed positive relationship between RMP, understanding risk, risk management, risk identification, risk analysis, risk monitoring, credit risk analysis and liquidity risk analysis prove the Hypothesis 1.

Table 4 *Pearson Correlation*

	URM	RMP	RI	RAA	RM	CRA	LRA
RMP	1.00						
URM	0.28	1.00					
RI	0.36	0.27**	1.00				

<b>RAA</b>	0.08	0.25**	0.17**	1.00			
<b>RM</b>	0.10	0.01	0.04	0.14*	1.00		
<b>CRA</b>	0.64	0.09	0.07	0.13*	0.10	1.00	
<b>LRA</b>	0.73	0.05	0.06	0.06	0.03	0.14*	1.00

#### 4.4. Regression Analysis

Table 5 Regression Analysis (Coefficients)

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.62	0.47		7.77	.000
URM	0.16	0.04	0.25	4.46	.000
RI	0.05	0.05	-0.05	-0.97	.066
RAA	-0.10	0.06	-0.09	-1.66	.097
RM	0.08	0.03	0.13	2.21	.028
CRA	0.11	0.05	0.11	2.09	.037
LRA	-0.20	0.07	-0.18	-2.88	.004

Dependent Variable: Risk Management Practices (RMP)

F-Value= 52.438, R<sup>2</sup> = 0.531, R<sup>2</sup>-Adjusted= 0.523

The result of the above table 5 shows the value of R square .531 which indicates that all explanatory variables explain 53% variation in risk management practices. The table also indicates that all variables have significant effect on risk management practices.

The result shown in Table 5 revealed the positive, significant and in some cases insignificant impact of variables on one another which is consistent with the results reported by (Hassan Al-Tamimi & Mohammed Al-Mazrooei, 2007). It also indicated that risk identification (RI) is a very essential and influential component of risk management practices and supports the policy and guidelines of the State Bank of Pakistan (SBP) regarding risk management.

These results indicate proper risk assessment mechanism is critical in banks in Pakistan. Similarly, significant and positive relationship between risk monitoring and RMPs ( $\beta=0.164$ ; P 0.00) was observed, which demonstrates the significance of risk monitoring as a prominent component of risk management practices. Risk monitoring activities should be communicated and coordinated at various levels in banking institutions in Pakistan. It may include sharing of results of risk assessment results which have impact on overall organization to risk responses being implemented. The institutions in Pakistan also concentrated modern technology required facilitating the monitoring process.

The significant and positive ( $\beta = 0.11$  P 0.037) relationship between risk management practices and credit risk analysis shown in Table 5 indicates that effective management of credit risk improves the usefulness of risk management practices. The result of the model shown in above Table 5 are consistent with the previous literature (Abu-Hussain & Al-Ajmi, 2012; Ayoub, 2013; Mehta, Neukirchen, Pfetsch, & Poppensieker, 2012; Bilal, Talib, & Khan, 2013; Shafique, Hussain, & Hassan, 2013).

## **5. Conclusion**

The results show that five most essential elements of risk management practices are most effective: Liquidity risk, risk monitoring, risk assessment, risk understanding Credit risk and have a very significant effect on overall RMS of the organization. Therefore, governmental organizations and State Bank of Pakistan should have strict control and supervision toward banking institutions to limit risks. Banking institutions, it has to enhance risk management procedure, expertise of employees, limiting risks at low level as well as minimize risk for clients. The study further provides empirical evidence that banking institutions working in Pakistan are generally efficient in risk management. It also confirms that risk understanding, identification and monitoring add value and improve the RMP of the institutions.

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