Why remodeling of risk management Practices in banking is required? Evidence from Pakistan

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Abstract— The main purpose of this study is to investigate the remodeling of risk management, risk-averse mechanism in Pakistan. To ensure deep understanding in this this study data collection done through distribution of questionnaires to relevant staff members. Respondents are selected on the basis of minimum three and five years banking experience and relevant professional education of finance or risk management. Multistage sampling technique is used for data collection. To ensure the consistency from respondents, personal interviews were conducted with an interval of few months after receipt of questionnaires. OLS is used to test the study hypotheses and to satisfy the study objectives. Based on statistical analysis and personal surveys, research findings concluded that banking sectors of study-countries have deep concern with potential risk challenges and they are in continuous process to improve risk measurement framework in accordance with the latest regulatory obligations. Further, this study is limited to the findings of remodeling of risk management to cope with the new financial challenges for the banking sector. Empirical investigation is conducted in Pakistan. Following this research model, future research can be extended to enlarge the sample size, by including other regional countries or a comparison between eastern and western countries to make it more useful to understand the risk management strategies, minimize banking default risks and to make this significant economic sector more strengthen. Respondent of this study are fast growing and emerging. Results of this study are likely to be beneficial for credit analysts, bankers and academic researchers. In perspective of study, a critical analysis on risk-averse mechanism implications is demonstrated in this study.

Index Terms— Risk modeling, Identification of Risk, Credit Risk Analysis, Risk Management Understanding, Risk Management Practices

1. INTRODUCTION

The Risk is the Phenomenon of Uncertainty, improbability and works as replication along through charge upon basics. Several risks exist which depends upon each other. Different events can effect more than one risk at same time (Alexander, 2005). Continuous Excess in Financial misfortunes becomes the reason behind reforms in risk management process.

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Financial Distress recently has dazed to institutions, which were backed by assets, this works as call to reform the banking sector risk modeling to evade future financial depression (Rosch & Scheule, 2007).

Financial crises had showed incompetence and cupidity in legislation with respect to old risk modeling, it has distressed even large portfolio investments of Middle East, European and American financial institutions in twentieth century (Gourinchas & Obstfeld, 2012). That's why, regularity authorities consider flaws of risk modeling and redesign their futile disciplines to manage risk effectively and Bilal et al. (2013) founded to meet Eventual regulatory requirements and to manage risk measurements competence was needed. Now it was required to think beyond the

assumptions which works under twentieth century regulatory requirement while establishing risk management system (Rotheli, 2010).

Banks's Risk Management Division (RMD) was required to ensure risk and reward ratios effectively and to control the potential loss their sizes require estimation to maintain the regulatory limits (Jobst, 2007).

Basel Accord-I (1988), Basel Accord-II (2004) and recently Basel Accord-III (2010) was the banking supervisory committee's steps towards circumvent of potential risks. They try to manage "Leverage" and "Liquidity" through new regulatory requirements by developing regulator standards capital adequacy, liquidity risks and stress testing. Accord was suitable or not, it depends upon convenience of human and technical resources. Moreover, it depends too upon financial liberalization and national environment of accountability. Largest financial players in Use and Europe got failure due to non-implementation of Base Accords I and II in true spirit and letter of it, regardless they were having technological support and adequate skilled resource in human sector (Feess & Hege, 2012).

While taking Post Global financial Crises (2008-2011) as base the main purpose of this study is to investigate the need of remodeling of risk management practices.

2. Literature

Along few serious concerns, banking failure becomes the part of existing banking system from several years (Haldane & May, 2011). Since few decades, management practices and for risk in different cultures of commercial banks are managing to be modernized through Basel Standards (Nedzvedskas & Aniūnas, 2007). The behavior of former and current customers can provide a useful historical data set, which can be crucial in predicting new applicants' behavior (Hussein & Pointon , 2009) .Hussein & Pointon (2009) analyzed historical data set developed from current and former customer behavior could be key factor to predict future customer behavior. Risk management practices are the fundamental element to reduce the risk which can be analyzed with the help of Risk Assessment & Analysis, Risk Monitoring, Risk management understanding, credit risk analysis and identification of risk.

Hahm (2004) found that the degree at pre-crises exposure was correlated significantly along with the financial performance before 1997 in Korea. Further he found high interest rates were also a reason behind financial crisis, negative exposure of banks was involved to depreciate the value to currency.

Radic et al. (2012).investigated the efficiency and risk management of investment banks of G-7 countries. The work reported that performance efficiency is influenced by liquidity and capital risk exposure in banks and bank size matters too, because cost and efficiency volume differentiate with respect to its size. Whereas, Hassan (2009) investigated risk management practices of Islamic banks at Brunei Darussalam. Results found that risk identification, assessment and analysis are significant to foreign exchange, operating and credit risk.

Another comparative study of Hussain and Al-Ajmi (2012) at Bahrain confirmed that operational, liquidity and credit risk are widely significant in both conventional and Islamic banks but Hassan (2009) & Al-Tamimi and Al-Mazrooei (2007) found Islamic banks in more controversial condition than conventional.

Efficiency of Pakistani Banking Sector was examined by Haque and Tariq (2012). They applied intermediating approach with the statistical data of 2006 to 2010 and their study was in-different of the study of Hussain and Al-Ajmi (2012), they proved the strength of Islamic banks upon conventional. Their results were also

consistent with Khalid and Amjad (2012) with respect to strength is Islamic Banks in Pakistan. Khalid and Amjad (2012) further explained credit risk management, monitoring and understanding performs as significant factors for Islamic Banks. Their findings contrasted Hussain and Al-Ajmi (2012) as they configured monitoring and identification of risk as most important factors with respect to Bahrain.

The Economist Intelligence Unit (2010) given a survey of 40 Percent of 346 respondents revealed significance of risk management and applied RM skills too; while, others were governing risk systems and avoiding risk threats. Randeree et al. (2012)study the Business Continuity Management (BCM), reason behind this study is to control relevant risk and upgrade the operational efficiency at UAE. Banks efficiency and BCM was significantly associated. Where Gai et al. (2007)explored policy design and found that financial innovation, systems integration and macroeconomic stability adheres significant effects institutions of developed economics during crisis. They further suggested "financial stability framework" to compete arduous challenges. During financial support, infrastructural development and unparalleled growth examination Khan and Bhatti (2008) found regardless of outstanding growth in pacific countries, Middle East, Weston counties and South Asia, operative and regulatory problems are caused of reduction in growth and development of Islamic Banking. Tafri et al. (2011) examined Malaysian Banking sector for RM tools and found un-paralleled market variance, credit risk mitigation, stress testing and operational risk management. Results were consistent with Haque and Tariq (2012).Blundell-Wignall and Atkinson (2010) proposed improvement in Base-III, as in absence of integration in regulatory and supervisory prospective.

In the presence of the above literature, this study is going to investigate how risk management Practices (RMP) effected by Risk Management understanding (RMU), Risk Assessment and Analysis (RAA), Identification of Risk (IOR), Risk Monitoring (RM) and Credit Risk Analysis (CRA).

Following hypotheses were developed to explore the facts of remodeling of risk management:

H1: RMP having positive relationship with RMU,RAA, IOR, RM and CRA

3. Methodology

In this Cross-Sectional study, respondents are having minimum professional and relevant education of risk Management or finance. They have minimum five years banking experience. Questionnaire is adopted from Hassan (2009) & Raza Bilal et al. (2013). All measure are constructed upon five point Likert scale, it follows the pattern from strongly disagree to strongly agree (1 to 5). Study setting is non-contrived, study selected five Islamic banks which do not have the conventional window. For comparison, big five conventional banks of Pakistan were also selected. In this way, total respondents Lahore city were 58, in which 46 represents conventional banks and 12 are from Islamic banks. Study use convenient sampling technique.

	RMU	RAA	IOR	RM	CRA	RMP
N	58	58	58	58	58	58
Mean	4.0517	4.0837	3.6724	3.9638	4.0991	3.9515
Skewness	.081	.229	.704	-.157	-.270	-.354
Kurtosis	-.261	.172	.105	-.045	-.241	1.336
Minimum	3.00	3.29	2.83	3.00	3.00	2.63
Maximum	5.00	5.00	5.00	4.80	4.88	4.94

Skewness must be between +1 to -1 and Kurtosis must be between +3 to -3. It can be observed from above table that skewness and kurtosis fulfills rule of thumb, so data is normal. Mean for RMU is 4.05 , RAA 4.08, IOR 3.67, RM 3.96, CRA 4.09 and RMP 3.95 respectively. Whereas Minimum for RMU 3,

RAA 3.29, IOR 2.83, RM 3 , CRA 3 and RMP 2.63 and Maximum for all is approximately 5.

Table: Statistical Test for Applicability of Factor Analysis

	N	Cronbach's Alpha	Kaiser-Meyer-Olkin	Bartlett's Test of Sphericity		
				App. Ψ2	DF	P-Value
RMU	7	0.754	0.685	91.597***	21	.000
RAA	7	0.587	0.620	48.956***	21	.000
IOR	6	0.697	0.656	67.392***	15	.000
RM	10	0.685	0.643	139.643***	45	.000
CRA	8	0.643	0.729	131.243***	28	.000
RMP	16	0.838	0.733	314.458***	120	.000

Note: ***, **, * Indicate significant at 1%, 5% and 10% level of significance.

N is number of items under each criterion

Conbach alpha's of all variables are around 0.70 except RAA and CRA but both of them are justified with KMO which is more than 0.60 and Bartlett test null hypotheses are rejected for all variables. This shows that responses are adequate for the study.

4. Results and Discussion

Table 1: Variable in the equation

Variables in the equation			
	B	**S.E.**	**Sig.**
RMU	.158	.112	.166
RAA	.175	.154	.263
IOR	.255**	.096	.011
RM	.083	.160	.604
CRA	.260**	.127	.046
Constant	.265	.510	.605

Note: ***, **, * Indicate significant at 1%, 5% and 10% level of significance.

R square of the model shows that RMU, RAA, IOR, RM and CRA explains 53.8% to the RMP and above table shows that IOR and CRA are significant at 5% level of significance. They are consecutively brining (B=.255) and (B=.260) change in RMP with the change of 1 unit in them. They also adhere the positive relationship. So the alternative hypotheses of the study is supported in the case of IOR and CRA. But null hypothesis failed to reject with respect to other variables.

For further exploration of the reason of insignificant variables, regression analysis with RMU and RMP

Shows following results.

	B	**S.E.**	**Sig.**
RMU	.469***	.099	.00

Note: ***, **, * Indicate significant at 1%, 5% and 10% level of significance.

R Square for the above regression shows that RMU explains RMP 28.7% and it do have significant positive relationship with RMP at 1% level of significance. This shows RMU having significant relationship with RMP but in above model it adhere less significant relationship with respect to IOR and CRA.

Now, regression analysis with RAA and RMP show following results.

	B	**S.E.**	**Sig.**
RAA	.633***	.120	.00

Note: ***, **, * Indicate significant at 1%, 5% and 10% level of significance.

R Square for the above analysis shows that RAA explains RMU 33.3% and it also having significant positive relationship with RMU, Which means RAA having positive relationship with RMU but in

regression model it has less significance upon RMP than IOR and CRA.

Regression Analysis of RM and RMP shows following results.

	B	S.E.	Sig.
RM	.660***	.136	.00

Note: ***, **, * Indicate significant at 1%, 5% and 10% level of significance.

R Square shows that RM explains 29.6% to RMP and have strong significant, positive relationship at 1% level of significance. It also explains the reason of being insignificant in overall model above. It can be understood that RM having significant relationship with RMP but less than IOR and CRA so in overall model it was not significant

5. Conclusion

Objective of the study was to explore the need of remodeling framework to encounter the current challenges through adjusting risk management practices.

From the results it can be found identification of Risk (IOR) and Credit Risk Analysis (CRA) have strong significant, positive relationship with Risk Management Practices (RMP). It implies that in order to respond to the challenges of current era along with identification of risk and Credit Risk Analysis, it is necessary to enhance risk management practices which aligns the remodeling of framework as a need of time. With respect to Lahore region Risk Monitoring (RM), Risk Analysis and Assessment (RAA) and Risk Management Understanding (RMU) are less significant than IOR and CRA. But they still adhere positive significant relationship with RMP, which explains with the increase of Risk monitoring (RM), Risk Analysis and Assessment (RAA) and Risk management understanding (RMU) it is also necessary to enhance Risk Management Practices (RMP). So it can be said still all constructs configure the need of remodeling framework in order to answer the current challenges faced by banking sector after global financial crises.

Implication of the study is for the banks to create better risk management, results are also beneficial for the bankers, credit analysts and academic researchers. Limitations to study are, it is cross sectional, it employed convenient sampling technique, limited to Lahore region only. Future researcher could enhance the respondents' size by adding more regions and could analyze each risk in more comprehensive way.

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