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Quality of Internal Risk Rating Frawework at Commercial Banks in Pakistan

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Abstract- This research was conducted to investigate the quality of internal credit risk rating systems maintained by the commercial banking industry of Pakistan with reference to multiple areas specific to an internal rating system. For this study expert interviews with heads of risk or credit risk management department of purposely seected ten commercial banks were conducted. The findings were derived using qualitative content analysis of the interviews. It was found that internal risk rating systems mainatined by Pakistan's commercial banking industry have good quality generally, however, there is some improvement needed in areas such as:

1. Practices related to internal risk rating methodologies.
2. Practices related to the documentation for the various areas in an internal risk rating framework.
3. Other areas including construction of credit grades, rating methodologies, consideration of credit ratings from external agencies, definitions and criteria of ratings were found consistent with the guidelines from the SBP.

Keywords: Commercial Banks, quality of internal risk, commercial banks

I. Introduction

Modern financial intermediaries, especially commercial banks, host a system to assess and rate the credit quality of their banking assets, this system is termed as an internal risk rating system. Being an important element of the overall credit risk management system, and, of course, an overall risk management system, this system enables a financial intermediary to be self-sufficient at assessing the creditworthiness of their individual customers and loans. As the nature of business models of various financial intermediaries is different, therefore, they face credit risk of varying levels. Because the nature of the products of commercial banks, that is loans, is that they are claims, therefore, commercial banks face higher credit risk as compared to the other financial intermediaries (Saunders & Cornett, 2012), and, therefore, they are motivated to establish and maintain a strong and effective credit risk management system. Establishment of a strong internal risk rating system is a crucial measure, therefore, toward establishment of a strong credit risk management system because it empowers commercial banks the capability to measure and manage credit risks arising from lending activities (Oyama & Yoneyama, 2005). Appreciating the efficacy and importance of internal risk rating system, regulators have been promoting, recommending, and enforcing its implementation and effective maintenance among financial intermediaries.

Credit Risk Management

Literature defines credit risk management as a systematic process which involves three ongoing activities relate to credit risk, which are: number one, identification; number two, measurement; and number three, mitigation (Koulafetis, 2017). An important component of credit risk management system, namely, measurement of credit risk, is the component which is directly connected with the internal risk rating system because it actually enables commercial banks to have the capacity to adequately risk rate their lending transactions and customers. Basel regulations focus credit risk extensively and prescribe good credit risk measurement and management practices for financial institutes. There are two internal risk rating methodologies which have been recommended by Basel regulations, which are: number one, standardized approach; and number two, Internal Rating Based approach (IRB) (Ozdemir & Miu, 2009). As per Basel regulations commercial banks are recommended to initiate the implementation of their Internal Risk Rating system with standardized approach, and subsequently, when they have the system in place, they are required to transit to the IRB approach. In 2008, the state bank of Pakistan (SBP) recommended commercial banks to maintain a designated internal risk rating framework in order to be able to rate their loans. Subsequently, the state bank of Pakistan prepared and released their guidelines for providing directions to the commercial banks in Pakistan in the implementation of internal risk rating system. Across the globe, the efficacy of the system has frequently been found impaired because of the problems such as poor quality of data (Bouteillé & Coogan-Pushner, 2013), use of inappropriate models, and unavailability of expert staff.

Internal Risk Rating

Internal risk rating system, being an element of the overall risk management framework, is used by commercial banks to rate the creditworthiness of their loans. The framework features a rigorous process of classifying the loans into specific risk grades (Bessis, 2015). These grades are identified by alphabetic names, such as (BBB, BB, B) or numeric names, such as (1-9) which are used in expressing the degree of credit risk associated with a loan or a borrower. According to (Krahnen & Weber, 2001) internal ratings are needed for these three reasons, which are: number one, for measuring credit risk; number two, for managing the loan portfolio effectively; and number three, for accurately pricing the loans of the banks. An effective internal risk rating system ensures good health of financial institution, and financial markets. An internal risk rating system categorize individual loans into separate risk classifications (Saunders & Allen, 2010), and to achieve this purpose, commercial banks are required to maintain an appropriate system in order to be measuring the credit risk of each of their loans. Internal credit risk ratings also play an important role in the smooth functioning of critical credit functions such as approval of credit, pricing of loans, credit relationship, administration of credit, portfolio management, and board reporting. Banks across the world have been developing effective internal risk rating frameworks to enhance the accuracy as well as effectiveness of their credit risk management systems. It appears that this phenomenon is expected to persist, as indicated by the behavior of commercial banks which continue to use modern diversification approaches and enhance their systems in order to measure the level of regulatory capital requirement for their credit risk (Shimko & Went, 2010).

Problem Statement

4. For extablishing a strong credit risk management framework the recognition of internal risk rating syste, and, indeed its implementation, is extremely important. Therefore, development of a strong internal risk rating systems appeears to be an active pursuit of commercial banks which are well aware of the high credit risk they are exposed to while operating in the complex financial markets environment. Unforunately, it is a challegenging task to implement and sustain an appropriate internal risk rating system with lack of important data, weak management support, and negligible regulators' cooperation.

5.

Objective of the Study

6. The objective of this study is to investigate into the quality of internal credit risk rating systems maintained by commercial banks in Pakistan.

Scope and Limitation of the Study

The focus of this study is only on commercial loans offered by conventional commercial banks. Lastly, the internal risk ratings guidelines prepared and released by the state bank of Pakistan are proposed here to be containing such recommendations that are reflective of sound practices within the sphere of internal risk rating.

II. Literature Review

Advantages of Internal Rating System

Across the commercial banking industry, an effective and modern internal rating system has been found to be valuable for these two reasons: number one, it enables banks in accurately measuring the impact of their lending decisions on their respective enterprise risk; and number two, it ensures that banks are able to accurately price their loans. According to (English & Nelson, 1998) banks enhance the effectiveness of the incumbent credit risk management systems by ensuring the maintenance of effective internal ratings systems. In the modern financial markets environment internal risk rating is widely employed in the world with larger banks employing elaborate systems as compared to smaller banks.

Quantitative and Qualitative Factors

In the financial industry it is a common practice to determine credit grades using both quantitative and qualitative factors. Literature offers both support and criticism for qualitative factors. For example, comptroller's handbook (2001) report that the first step in the internal rating process is thorough evaluation of the customer's creditworthiness, which relies on both quantitative and qualitative factors. Discussing the value of qualitative factors, (Oyama & Yoneyama, 2005) state that qualitative factors should never be ignored completely, therefore, in cases where quantitative factors are deficient in accurately measuring the credit risk, the expected impact of qualitative factors may be added either by adjusting the credit scores or the credit grades. Some of the researchers such as (Lehman, 2003) did not fully support the use of qualitative factors, because, according to him, the level of incremental costs needed to acquire non-quantitative and judgmental information may not be justified, however, he stated that expert judgments should not always be missed as they are frequently found valuable to the internal rating frameworks. Because of the inclusion of qualitative factors the entire process may become somewhat arbitrary and inconsistent, therefore, according to (Oyama & Yoneyama, 2005) a detailed and specified evaluation criteria should be developed to assess and select the important qualitative factors.

Design of Internal Risk Rating

An internal rating system has important elements, which, according to (Dudian & Maciuca, 2010) includes: a procedure for developing the requisite parametrical factors, articulated risk categories, a defined responsibility structure for the entire system, availability of necessary physical and technological assets, adoption of models which could incorporate both quantitative and qualitative factors, and reasonable level of validation. Similar views were shared by (Treacy & Carey, 2000) who report that the important considerations while designing an effective system should be: the responsibility for grading, the reviews of ratings, authority structure, the availability and role of external ratings, use and construction of quantitative models, the formal description and approval of the entire process, and creation and authority for rating definitions.

A good design and a thorough implementation effectively can enable a bank to manage its credit risk without an additional layer of equity (Jacobson, Lindé, & Roszbach, 2006). There are some other factors to be looked into while establishing an internal risk rating system, which are: the nature of bank loans, cost of implementation and maintenance, needs and expertise of staff which will utilize the ratings, and the perceived role of ratings for developing the desirable credit culture (Treacy & Carey, 2000). There are other approaches to developing an internal rating system than designing it from scratch, these are: number one, developing the internal ratings using the external ratings; number two, developing the internal ratings based on credit derivatives models; and number three, developing the system based on sophisticated credit risk management models (Damel, 2006). In the case of developing the system using external ratings, the results, within some credit risk notches, are generally comparable to the case where external ratings are directly used, however, the natural default rates linkage between the ratings is lost (Ozdemir & Miu, 2009). Modern researchers have also discussed the phenomenon of aggregation of credit scores. The general perception about these two is that: number one, if the rating system does not aggregate scores then the system may not function appropriately (Frerichsa & Wahrenburg, 2003), and that the use of through-the cycle ratings may decrease the pro-cyclic behavior of credit risk (Kauko, 2012).

External and Internal Rating

The use of internal risk rating has several advantages over external credit ratings, which are: number one, as compared to external ratings the internal ratings enable the banks to respond promptly and effectively to changes in credit qualities by making use of both private information and their discretion; number two, as comptroller's handbook (2001) reports, the internal ratings provides for a multiple of perspectives on a customer's credit risk (Yeuh & Webber, 2003). However, (Nakamura & Roszbach, 2010) states that in the process of assigning internal ratings some information may be lost, therefore, it may be beneficial to seek important information from external ratings and incorporate it the system.

Basel Regulations and Internal Risk Rating System

Commercial banks are required under the IRB approach of Basel regulations to employ internal ratings for the management of credit risk of their loans (Stephanou & Mendoza, 2005). Under the IRB approach the credit exposures are categorized using a prescribed approach and criteria. While effectiveness of IRB approach has been claimed widely, however, there are several researchers who have criticized the IRB approach. (Varotto, 2008), for example, has criticized the IRB approach to measure credit risk as, according to him, it wrongly assumes that the relevant credit portfolio is well diversified and that a single risk factor may describe credit riskiness.

Internal Risk Rating Guidelines
(The following discussion constitutes an abstract of the Internal credit risk rating guidelines of the SBP released in 2008). These guidelines provide for several recommendations. For example, the guidelines recommend that commercial banks should be maintaining a multiple of risk grades where the number of which must not be fewer than nine in the case of loans without default, and should not be fewer than three for other loans. Moreover, rating definitions, procedures and criteria for assigning the grades to relevant exposures are to be narrated such that third parties can comfortably reproduce them. The banks must employ a methodology in order to clearly differentiate among the credit grades in terms of severity of their credit worthiness. In terms of rating criteria, it is prescribed in the guidelines that the banks should incorporate the effect of all relevant and critical information. Any factor, whether it is quantitative or qualitative, which is important to the assessment of the borrowers should definitely be considered. The guidelines recommend that when the relevant external credit risk rating is available then the banks are required to ensure that all important risk factors are adequately accounted for in the methodologies they used to implement their internal risk rating systems. Otherwise, in the cases where the external ratings are ignored and the internal risk rating existing internal rating are very different, an explanation from the bank is to be provided.

The guidelines recommend only negative adjustment. The guidelines recommend that the ratings be reviewed every year. A proper system of documentation should be in place to record roles of staff and management, rating criteria, and frequency of reviews. Moreover, the recording of transactional data and details of significant events was emphasized in the guidelines. The guidelines also discuss that the bank should not only report portfolio's quality in terms of both the individual financial assets and the overall portfolios, but also provide details of migration and loss rates.

III. Research Methodology

Interview strategy was used to collect data for this study. Out of the twenty commercial banks in Pakistan, ten were selected using the purposive sampling approach. The excluded banks were either Islamic banks or those maintaining fewer than ten branches. The unstructured interviews were employed to fully capture the expert and valuable views from either the heads of risk management or heads of credit risk management departments of their respective commercial banks. The interview protocol was designed using the essential recommendations from the internal risk rating guidelines which were prepared and released in 2008 by the state bank of Pakistan. Next, the transcriptions for all of the audio-recorded interviews were carried out verbatim to be subsequently analyzed using qualitative content analysis. Several categories emerged out of the analysis, the discussion regarding which is presented below in tables. Subsequently, as the content analysis progressed, new categories continued to emerge within each category.

Data Collection and Analysis
For this study in-depth un-structured interviews were carried out with the heads of risk management departments from ten purposely selected commercial banks existing within Pakistan. These interviews generally involved open ended questions which covered several elements of internal risk rating systems. The findings from the interviews were derived using the data analytic technique of qualitative content analysis. All of the conducted interviews were transcribed verbatim, and subsequently coding was performed in a repetitive fashion to the extent where new categories stopped emerging. Nvivo application was used to help with the coding process. Generally, three to five sub-categories emerged out of each of the individual category. Finally, the actual coding process was performed, the outcome of which is shown in multi column tables; each table representing an individual category and each column in a table representing an individual sub-category.

Content Analysis

As discussed above, the heads of risk management departments from ten commercial banks in Pakistan were interviewed to obtain the data for this study. Subsequently, the data analysis was performed through the technique of qualitative content analysis. The analysis of transcribed interviews is presented below.

Credit culture in the banking industry.

Category 1 **Practices consistent with Risk Appetite & credit policy**
Category 2 **Strong Credit Management**
Category 3 **Clear Accountability of Relevant Employees**
Category 4 **Credit analysis and policy Training**
Category 5 **Rewards and Penalty for Vigilance and Negligence**

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√	√	√	√
2					√
3	√	√	√	√	√
4	√	√			
5	√		√	√	
6					
7l	√	√			
8	√		√		
9	√			√	
10	√	√			

It was found that the interviewed banks did not maintain a strong credit culture. While majority of the banks stated that their credit practices were consistent with their credit policy and risk appetite only about half of the banks regarded their credit function as being headed by a strong top management. One important but unfortunate aspect regarding the credit function was inadequate level of and inappropriate training imparted to the employees. Similarly, it appeared that the banks did not maintain, in general, an appropriate incentive system to motivate their well performing staff members and managers. On the same lines, less than half of the banks stated that their departments maintained a transparent and strong accountability system which could hold the concerned individuals accountable.

Credit Grades

Category 1 **Number of grades and a meaningful distribution of risks**
Category 2 **Number of grades and high concentration**
Category 3 **Maintaining nine and above grades for non-defaulted loans**
Category 4 **Maintaining three or more grades for defaulted loans**

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√		√	
2	√	√		√	
3	√	√	√	√	
4	√	√		√	
5	√	√		√	
6	√	√		√	
7l	√	√	√	√	
8	√	√		√	
9	√	√		√	
1	√	√			

It was found that majority of the commercial banks maintained several credit grades allowing them to offset the impact of excessive credit risk concentration in their portfolio. Moreover, it was found that the structure of the available grades was such that it provided for a somewhat normal distribution of risk definitions.

Majority of the interviewed banks maintained nine or more grades related to non-defaulting loans, and related to defaulted loans majority of the 10 banks maintained three or more grades.

Rating criteria:

While assigning their ratings the interviewed banks were found to look into the following relevant factors relevant for assessment of the borrowers:
Category 1 Financial condition measured by the level of debt, net income, and expected cash flows.
Category 2 Management analysis, quality of internal controls, payment behavior, and sponsors' financial strength.
Category 3 CIB report, business sector, and industry analysis

Respondent	Category 1	Category 2	Category 3		
1	√	√	√		
2	√	√	√		
3	√	√	√		
4	√	√	√		
5	√	√	√		
6	√	√	√		
7l	√	√	√		
8	√	√	√		
9	√	√	√		
10	√	√	√		

The banks were found to maintain an internal risk rating framework which was found to adequately consider the important factors allowing effective determination of the creditworthiness of borrowers. All of the ten banks interviewed appeared to have mixed views about the critical attributes of their borrowers in the process of assigning them a credit rating. All of the banks considered assessment of financial conditions as a very important factor in credit analysis which included elements such as the level of earnings, size of debt, and the ability to produce cash lows on persistent basis. The banks had diversified views about what factors which were important in the evaluation of the management performance and capacity. For example, some of them thought that analysis of management was very important, others thought that controls in the business was very important, still others thought that payment behavior and sponsors financial condition being the most important factors. Moreover, majority of the banks considered qualitative information from the CIB report and industry factors as very important.

Internal Risk Rating Framework Documentation

Category 1 **Portfolio differentiation**
Category 2 **Rating criteria**
Category 3 **Responsibilities of parties rating the borrowers**
Category 4 **Rating review frequency**
Category 5 **Management oversight for rating process**

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√	√	√	√
2	√	√		√	
3	√	√		√	√
4	√		√		
5	√	√		√	√
6	√	√		√	
7	√			√	
8		√	√	√	√
9	√	√		√	

10	√	√	√	√	√

The interviews provided some very critical insights related to the documentation of various activities and tasks within the internal risk rating process. Majority of the interviewees stated that they maintained adequate documentation in support of portfolio differentiation. Regarding the rating criteria, majority of the banks appeared to maintain effective documentation related to the rating criteria. The documentation process maintained to account for the responsibilities of the concerned employees was not found adequate for majority of the banks as less than half of the banks appeared to be proficient in this connection. The banks were found to document the rating reviews frequency appropriately, however, documentation specific to the management oversight was not adequate. Majority of the banks appeared to maintain effective documentation, the remaining banks did not appear to be effective in this connection.

Development of the internal risk rating system.

Category 1 Maintain a system to measure their credit risks
Category 2 Recently accomplished
Category 3 Using a third-party analytical system
Category 4 Finding the Implementation challenging

Respondents	Category 1	Category 2	Category 3	Category 4	
1		√		√	
2				√	
3	√		√	√	
4	√			√	
5	√			√	
6				√	
7	√	√		√	
8	√			√	
9	√			√	
10	√			√	

Maintenance of an effective internal risk rating framework is regarded as inevitable for banks if they seek to implement the basel III based advanced approach to the measurement of credit risk. For this study, majority of the commercial banks were found to maintain a vendorised system in order to be determining credit risk inputs. Majority of the banks were found to maintain a strong internal credit rating framework which could measure the values of important inputs and components of credit risk. However, a few of the banks were found to maintain an internal credit rating system which was only recently established; one of the banks was found having some difficulties with the implementation of their recently acquired vendorised analytic system.

Role of External credit ratings

Category 1 Consideration of external credit ratings
Category 2 Incomplete alignment with the external rating
Category 3 Requirement of an explanation in case an external rating diverges significantly
Category 4 The internal risk rating to be adjusted downward only with the change in external credit rating

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√	√	√	√
2	√	√	√	√	√
3	√	√	√	√	√
4	√	√	√	√	√

5	√	√	√	√	
6	√	√	√	√	√
7	√	√	√		√
8	√	√	√	√	√
9	√	√	√	√	√
10	√	√	√	√	√

The banks were found to consider external credit ratings in the finalization of their internal ratings. However, the banks were not found to be fully aligning the external credit ratings with their internal ratings. Majority of the banks were found to maintain a policy of producing an explanation in case their internal ratings diverged appreciably from the current external ratings. It was to be noted, however, that the banks considered the current external ratings only to revise the internal ratings downward and not revise it upward.

Rating Definitions

Category 1 The definitions and the method for exposures' assignment being appropriate and precise.
Category 2 The definitions are understandable to internal auditors
Category 3 The definitions support replication of assignments by third parties
Category 4 Ratings allow meaningful differentiation of risk

Respondents	Category 2	Category 2	Category 3	Category 4	Category 5
1	√	√	√	√	√
2	√	√		√	√
3	√	√	√		√
4	√	√		√	√
5	√	√	√		√
6	√	√	√	√	√
7	√	√			√
8	√	√	√	√	√
9	√	√			√
10	√	√	√		√

It was found that the majority of the banks maintained rating grades definitions and their assignment criteria both of which were understandable. Unfortunately, majority of the banks were found to maintain the definitions and the criteria of internal ratings which might not be replicated by their internal auditors as well as the by third parties. Moreover, majority of the banks maintained the definitions of their ratings which were helpful for the banks in achieving differentiation of the credit risk.

Reporting for Internal Risk Rating Practices

Category 1 The rating information is included in the periodic reports sent to the board
Category 2 Rating-based information being graded
Category 3 Reporting incorporates realized default rates
Category 4 Reporting incorporates both trend and migration analysis
Category 5 Reporting incorporates segment information divided into credit grades

Respondents	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
1	√	√		√	√	
2	√	√			√	√
3	√	√	√		√	√
4	√	√		√	√	
5	√	√	√		√	√

6	√	√		√	√	√
7	√	√	√		√	
8	√	√			√	
9	√	√		√	√	√
10	√	√	√	√	√	

It was found that the reporting practices related to internal risk rating activities varied greatly across commercial banks.

Majority of the banks were appeared to include rating information in the periodical reports submitted to the boards. Moreover, majority of the banks were found breaking the rating information into credit grades. However, less than half of the banks were found to include information specific to realized default rates. Half of the banks stated they reported trend and migration analysis. It was also found that the banks observed divergent practices for the frequency of the reporting: about half were found to report credit information quarterly, the other half of them, however, were found to report the information annually.

Board's Role in the System

Category 1 The internal risk rating policy approved by the board
Category 2 The internal risk rating policy approved by top management
Category 3 The policy not being approved separately
Category 4 The policy was approved as a separate document
Category 5 Board is involved in setting the responsibility structure

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√		√		√
2	√		√		√
3	√			√	√
4	√		√		√
5	√		√		√
6	√		√		√
7	√		√		√
8	√		√		√
9	√			√	√
10	√		√		√

It was found that majority of the banks had their internal risk rating policies duly approved by the board. Moreover, majority of the banks interviewed were also found to have their policies approved as a constituent of their overall credit policies. Some of the interviewed banks, however, disclosed that they had their internal credit risk rating policies separately approved through their boards. It was also found that, regarding the board's intervention for setting the responsibility structure, all of the banks appeared to observe the recommended behavior of the board.

Linkages with the other credit functions.

Category 1 Portfolio monitoring,
Category 2 Loan loss reserve Analysis
Category 3 Loan pricing
Category 4 Capital allocation and return analysis
Category 5 Maintaining a centralized system for various credit functions

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√	√	√	√

2	√	√	√	√	√
3	√	√	√	√	√
4	√	√	√	√	√
5	√	√	√	√	√
6	√	√	√	√	√
7	√	√	√	√	√
8	√	√	√	√	√
9	√	√	√	√	√
10	√	√	√	√	√

It was found that majority of the banks were making use of their internal risk rating systems for a variety of purposes. For example, they would use it for the monitoring of their portfolios, loan loss provisioning, pricing of loans, and capital planning. Moreover, it was found that the banks were not maintaining separate credit rating systems for individual credit risk management tasks.

The Methodology Behind the Internal Risk Rating System

Category 1 Consistent with size, operational characteristics, and customer's base.
Category 2 Accommodative of all types of risks
Category 3 Accommodative of estimated degree of diversification
Category 4 Accommodative of complexity of lending activities
Category 5 Providing valuable information to measure and manage credit risk

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√		√	√	√
2	√		√	√	√
3	√	√	√	√	√
4	√	√	√	√	√
5	√	√	√	√	√
6	√	√	√	√	√
7	√		√	√	
8	√	√	√	√	√
9	√		√	√	
10	√	√	√	√	√

It was found that the majority of the interviewed banks appeared to maintain and use a well-structured methodology to assign ratings to the loans of their borrowers. Similarly, the banks appeared to maintain methodologies which were consistent with their size, characteristics of their operations, and the clientele base. Moreover, majority of the banks appeared to maintain flexible methodologies which allowed accommodation of both current and prospective risks; several banks, however, appeared to lack such a methodology. The banks were cognizant of diversification and, therefore, it was duly considered in the development of the methodology. Moreover, it was also found that the methodologies adopted by the banks were consistent with the level of sophistication of their commercial lending behavior.

The banks appeared to be maintaining methodologies producing information which was appropriate for the maintenance an effective credit risk management system.

Using quantitative and qualitative factors in assigning ratings

Category 1 Quantitative factors
Category 2 Qualitative factors
Category 3 Both quantitative and qualitative factors
Category 4 More emphasis on quantitative factors
Category 5 More emphasis on qualitative factors

Respondent	Category 1	Category 2	Category 3	Category 4	Category 5
1	√	√	√		√
2	√	√	√		
3	√	√	√		
4	√	√	√	√	
5	√	√	√		
6	√	√	√		√
7	√	√	√		
8	√	√	√	√	
9	√	√	√		
10	√	√	√		√

It was found that the majority of the banks appeared to use, generally according to the context, both quantitative as well as qualitative factors in order to effectively assign their credit ratings. However, some of the them appeared to emphasize more on quantitative factors while a few banks appeared to emphasize more on qualitative factors. Among the banks which placed strong reliance on qualitative factors the judgmental information produced from the qualitative assessment of the underlying situation faced by the client was emphasized more than the information gained from a quantitative measure.

IV. FINDINGS

The findings of this study, which are produced below, were derived from the qualitative content analysis conducted using the content of the transcribed interviews.

Credit Grades

It was found that the internal risk rating systems implemented and maintained by the commercial banks in Pakistan are proficient regarding the quality of credit grades used by the banks for their internal risk rating systems. The banks use ample variety of grades which preempts concentration of credit risk and produces an elaborate list of relevant risks. Another requirement from SBP is maintaining the credit grades within the range of three to nine credit grades for non-defaulting and defaulting loans respectively, it was found that all of the banks in Pakistan meet this requirement.

Use of quantitative and qualitative factors

A critical and widely followed approach under the internal risk rating environment in Pakistan being the careful consideration of both quantitative as well as qualitative factors by the banks when they are assessing the credit risk of their borrowers. The SBP guidelines recommend the banks to use a combination of the factors in keeping with the set of internal and external economic conditions facing their clients. It was found that the banks in Pakistan consider a right mix of both qualitative and quantitative factors which is a practice that indicates complete compliance with the guidelines.

Internal Risk Rating Methodology

The content analysis indicated that the commercial banks in Pakistan were using weak methodologies supporting their risk rating frameworks. Though, the employed methodologies appeared to be capable to handle various types and level of lending activities, however, they were found inflexible to incorporate future risk profiles, and expected diversification. Moreover, the methodologies did generally appear to be sophisticated enough to cope up with contemporary lending environment.

Documentation

Specific to documentation environment the commercial banks in Pakistan were found deficient related to several activities in their internal risk rating frameworks. Even though the banks maintained adequate documentation for areas such as portfolio differentiation, and rating criteria, however, they did not maintain adequate documentation for other areas in the internal risk rating system. Moreover, the nature and process of documentation related to the responsibilities of the relevant staff, and the process of supervisory oversight did not appear to be strong.

Internal Risk Rating Policy

Majority of the interviews indicate that banks maintained good internal risk rating practices related to the policy's approval and revisions. Each of the banks interviewed had a formal process for approval of the policy from their boards - a best practice according to the SBP guidelines. The banks ensured that necessary changes in the policy were incorporated yearly or earlier if there was a genuine need warranted by the economic or financial circumstances; again, this is considered as one of best practices recommended by SBP.

External Credit Ratings

Analysis of the conducted interviews indicated that the commercial banks studied the designs and methodologies of popular external credit ratings before adopting the designs and methodologies their own internal ratings. This did not, however, led the banks to seek a complete alignment of their internal ratings with those from external agencies. However, the commercial banks were found to continually monitor the changes in external ratings and, in the case of any significant divergence between the external and internal credit ratings, were required to present a reasonable explanation. Moreover, majority of the commercial banks tended to follow the external ratings to the extent where they made the downward revisions based on indications from external credit ratings.

Rating Definitions

It was found that the banks were using correct definitions of rating grades, and using correct rating assignment criteria. In terms of the internal auditors to perform replication of the ratings only six out of ten banks ten have this ability. Similarly, the ability to replicate external ratings was not widely enjoyed as only five out of ten banks were found to have the ability. Moreover, majority of the banks appeared to maintain the right definitions of ratings which allowed them to accomplish credit risk differentiation.

Rating Criteria

The interviews indicated that the banks had divergent views on the borrowers' attributes that should be assessed in the process of assigning internal ratings. For example, in their models, majority of the banks were found to incorporate financial condition of the borrowers using such metrics as the level of debt, earning capacity, and the cash flows expected from the business. However, the banks had different views on several factors related to the assessment of business management; for example, many of them did not consider analysis of management, management control, financial commitment, and sponsors financial strength as important factors. In fact, 50% of the interviewees considered these factors unimportant. There are some other qualitative factors which were considered unimportant by most of the interviewees, which include these two factors: number one, information content from the CIB report; and number two, industry analysis.

V. Conclusion

Credit risk stems through the uncertainty related to borrowers' ability and inclination to pay. Financial institutes are regarded as unique businesses because they have to select and monitor the behavior of their customers differently and more rigorously. In cases of deficient selection or monitoring process the financial institute may experience a financial disaster from defaults made by the customers. As inferred above, commercial banks face this risk inherently, however, a strong credit risk management system may significantly safeguard them from this exposure. Maintenance of a strong credit risk management is very important for an economy such as Pakistan in which commercial banks are expected to play an active role in the development of the economy, yet, there are long-standing issues of good governance, efficient financial markets, technological resources, and expert personnel.

The academic work specific to internal risk rating practices adopted by commercial banks, particularly for Pakistan, are neither extensive nor intensive. The researchers who studied internal risk rating systems, have mostly discussed both quantitative and qualitative aspects in relation to rating models, design of the prevalent rating systems, and comparative analysis of the design of external and internal ratings. Academicians and practitioners agree that banks in Pakistan need to focus on these aspects of the internal risk rating systems as well as some others, all of which have been covered by the SBP in their guidelines. For this study,therefore, certain contents of the guideliness were employed as a means to evaluate the quality of risk rating practices observed and maintained within the commercial banking industry in pakistan, that is: numer one, risk rating principles; and number two, the requirements to the implementation and maintenance of internal risk rating.

In this study an attempt was made in order to evaluate the quality of internal risk rating environment created and established by the commercial banks operating in Pakistan. The achievement of the aforesaid objective was sought through the analysis of information accumulated from the interviews conducted with the risk management heads of ten commercial banks existing in Pakistan. The intervews involved unstructured questions which were in spirit of the salient recommendations from the internal risk rating guideliness prepared and dissenimated for the commercial banks of Pakistan. Subsequently, the interviews were transcribed verbatim, and the analysis of the transcribed interviews was performed through qualitative content analysis technique. The findings from the content analysis disclosed that internal risk rating practices adopted by the Pakistani commercial banks appear to be of good quality, however, there is a need for commercial in Pakistan to improve their internal risk rating practices related to some of the elements. For example, these two elements of internal risk rating systems maintained by the commercial banks operating in Pakistan did not appear to be strong, which are: number one, practices related to internal risk rating methodologies adopted by the banks; and number two, practices related to maintaining the documentation for the different areas within the internal risk rating system.

However, the practices related to these eight elements of internal risk rating system appeared to be in accordance with the recommendations of the guidelines from the SBP, which are: number one, practices related to credit grades; number two, judicious selection of qualitative and quantitative factors; number three, internal risk rating methodologies; number four, internal risk rating policy; number five, external credit ratings; number six, practices related to rating definitions; number seven, practicing related to rating criteria; and number eight, involvement of boards. Thus, these elements of internal risk rating systems maintained within the commercial banking industry of Pakistan, appear to be of high quality.

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