Determinants of operational risk and Microfinance Banks performance in Pakistan

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Determinants of operational risk and Microfinance Banks performance in Pakistan (Thesis Extract)

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Abstract

**Aim/Purpose** – This paper presents the analysis of determinants of operational risk and their impact on Microfinance Banks (MFB’s) performance.

**Design/methodology/approach** – The sample size was 120 consisting of thirty respondents from each of four MFB’s out of eight in total. A standard data collection tool; the questionnaire was used. In addition, personal interviews with few regulators were also conducted for a better understanding of the subject from a practical perspective. Statistical Package for Social Sciences (SPSS) was used to analyze the collected data and for further analysis Ordinal Logistic Regression was used.

**Findings** – Show that staff salaries, employee education, technical support, employee training and consumer education were some of the most important factors which explain MFB’s performance. Overall Ordinal Logistic Regression results show that internal control system is the major source of operational risk and has a high impact on MFB’s performance while the intensity of the impact was low in case of human resource.

**Research implications/limitations** – Due to the limited time and cost issues, only those MFB’s were considered which had operations either in Islamabad or in Punjab province. Data collection tool was revised multiple times to make it easier, friendly and professional because organizations were reluctant to respond. The small sample size was considered in order to reduce traveling time and cost; however the large sample size will absolutely produce better results.

**Originality/value/contribution** – Despite the addition in existing knowledge, the paper highlighted the strategic importance of different selected variables including consumer financial literacy for MFB’s performance. Nevertheless, it also presents a list of 24 factors, perceived by regulators, which impede the ability to achieve their desired organizational objectives.

**Keywords**: operational risk, microfinance banks performance, financial literacy.

**JEL Classification**: G21, G32

1. Introduction
The modernization and advancement in technology have led organizations to optimize synergies through the development of information technology-based processes like branchless banking and mobile banking in the Microfinance Sector. Where it will help to cut operational cost and increase profit, it will also increase risk. There are different kinds of risk like financial risk, institutional risk, environmental risk, strategic risk and operational risk which can affect MFB’s (Steinwand, 2000) as shown in Figure. 1. Operational risk is suspected in each transaction regardless of the nature of the business. Basel Committee, (2010) defined operational risk as “the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems or formal external events”. According to Blacker (2000), operational risk is “breakdown or failure in the operational process within the bank”. Thus, the operational risk in the MFB’s usually comes up either from people or system.

The operational risk from the internal environment is considered for the study. Its elements are briefed here one by one. Firstly, human resource is an important asset just like other assets that controls the operations which are either manual or computerized. The job performance depends upon their relevant knowledge as well as experience which is ensured through the proper recruitment process. Despite advanced technology, most of the MFB’s are still following the manual record system while lending in the field; thus, increasing the chances of error and fraud. Secondly, an internal control system which constitutes the procedures or guidelines designed by the management to achieve organizational objectives efficiently and effectively. Unfortunately, some of the MFB’s have not implemented it yet while the others have a weak system. According to Power (2005) “the need for internal control system has been banking legislation”. In most of the cases, the unexpected losses occurred due to a weak internal control system (Chernobai, Jorion, & Yu, 2011). MFB’s focuses on vulnerable individuals who are either poor or close to the margin of poverty. Majority of them are either uneducated or have a just primary education but are totally unaware of financial
education. Therefore, they hesitate to use banks offered financial services which are a big hurdle in outreach.

**Figure 1:** Types of Risk and their Effect on MFB’s

On the other hand, MFB’s staff have strong expertise in the social sector than the financial sector (Duflos, E., Latortue, A., Mommartz, R., Perrett, G., & Staschen, 2007). It might be due to the absence of relevant microfinance education. Many institutions do not clearly differentiate the microfinance programs from social programs to the consumers (Duflos, et al., 2007). In addition, the weak information system is a problem in this sector as it may hinder the right decision making. According to Power, (2005) “deficiencies in the information system give rise to the unexpected losses.”

Extensive work has been done on credit risk especially in the microfinance sector but the operational risk is still an uncovered area. The reason might be a low probability of its occurrence, but it is experienced that the events or factors of low probability have a high impact on performance (Power, 2005).
This study analyses the factors of operational risk which affects MFB’s performance in Pakistan. Moreover, it also highlights the importance and impact of operational risk.

Microfinance started in the year 2000 in Pakistan while in the world in 1970 by Dr. Muhammad Yunus from Grameen Bank (SBP, 2006). Currently in Pakistan total thirty one microfinance providers are working which comprises MFB’s (operating under the supervision of state bank of Pakistan) and twenty three microfinance institutions (State Bank of Pakistan [SBP], 2011). MFI’s all over the world are working to pull the people out of poverty by making them able to do work. According to SBP (2011) the number of people served was 0.9 million at the end of the year 2006. In year 2007 SBP decided to upgrade the target to serve 3 million people nationwide by the end of the year 2010 whereas they could achieve only 2.07million. So there is a gap of about one million because of some hidden forces. That is why it is worth to analyse those factors which affect MFB’s overall performance.

The paper is detailed as follows: The first section presents the brief introduction of the microfinance sector, prevailed types of risk and purpose of this study. Second and third sections comprise the prior research and research methodology detailing about the variables, association among them, population and sampling. The fourth & fifth section presents the results and further discussion. Section six comprises the conclusion as well as recommendations.

2. Literature review

MFB’s have limited management capacity. It is because most of the staff is drawn from Non-Government Organizations (NGOs) who have had the exposure in social planning but have insufficient expertise in financial planning. Akhtar (2007) reveals that some of the individual institutions have problems where overall human resource strength is in excess which exerts extra cost. Therefore, Duflos et al., (2007) concluded that as currently, the interest rates
charged by most microfinance providers in Pakistan do not cover their operational cost. The prevailing interest rates in the microfinance industry in Pakistan are 28% to 30% which are comparatively higher than several other countries. It is due to operational cost which is hard to cover even at the prevailing rate. To generate profits in the MFB’s commercialization is the solution (Chu, 2008).

The government of Pakistan commercialized Khushali Bank Ltd., which would need additional trained staff to compete with commercial banks as well as to pursue limit of three million borrowers in 2010 (Akhtar, 2007). “There are categories of poor clients regarding payment of due amounts, first-willing and able to pay, second-willing but unable to pay, third-unwilling but able to pay, forth-unwilling and unable to pay” (Norell, 2001). In the microfinance sector, more risk is involved because customers are either poor, micro-entrepreneurs or close to poor. Most of them do not have the collateral required to get a loan. The State Bank of Pakistan (SBP) limits credit up to Rs.150,000 (Approx. $1500 US) without collateral for microfinance banks and this limit for commercial banks is Rs. 2 million (Approx. $20,000 US). Nevertheless, some of the customers are eligible to get a loan regardless of the requirements. According to Nanada (1999) this is “because of the vested interests of the politicians whose sole concern is the rural vote bank and the actions of bureaucrats who appear to want to help only the large sector”.

In addition, the majority of clients lack financial knowledge. Most of them are reluctant to borrow due to the risk of inability to pay back borrowed money. Despite basic education, they don’t know about efficient ways to use borrowed money. Microfinance marketing might play a better role. Some of the clients do not use services offered by MFB’s due to fixed interest rates like the conventional banking system. According to Karim, Tarazi, & Reille, (2008) “microfinance banks should create sharia compliance in their products”.

Gaul (2011) explored that “persistent negative profits are a risk factor for social performance and point out low portfolio quality and institutional inefficiency”. Operational risk can be the most devastating one which exists at every
stage whether the institution is lending, installing new machinery, updating the existing databases, hiring employees (Cagan, 2008). Further, liquidity risk increases the severity of operational risk (Cagan, 2009). Moreover, a major portion of operational losses is due to transactional errors (Harmantzis, 2004). Such losses are due to human error, the absence of proper procedures, and laziness in following the prescribed guidelines or inadequate guidelines (Grody, Harmantzis, & Kaple, 2007).

According to the Sharabati, Naji Jawad, & Bontis, (2010) performance of the microfinance banks largely depends upon intellectual capital which is “more favourable than the tangible resources to generate the competitive advantage” (Hitt, Bierman, & Shimizu, 2001). Nevertheless, this sector relies more on outsiders’ money that increases the cost of capital and leads towards high-interest rates which ultimately increases the default rate (Hoque, Chishty, & Halloway, 2011). This expensive lending might be the source of failure of operational activities. It might be “due to the direct and indirect losses” from the internal and external environment. Chernobai, Jorion, & Yu, (2008) concluded that operational risk largely comes up from the internal environment (firm). In addition, low profitability or loss in microfinance banks in Pakistan is due to the high percentage of personal and administrative expenses. Aboagye & Otieku (2010) says that “for the growth of microfinance banks; control over administrative expenses is important.

3. Research methodology

The target population was the management staff of MFB’s. Keeping in view the data collection issues, only MFB’s were chosen out of microfinance providers. Four out of eight MFB’s: Khushali Bank Limited, Kashuf Microfinance Bank Limited, Tameer Microfinance Bank Limited, National Rural Support Program Bank Limited were selected which constitute over 50% of market share as per the number of borrowers until the year 2010. The sample size was
120 respondents consisting of thirty respondents from each of the four banks. A standard data collection tool; the questionnaire was developed and distributed among banks. Personal interviews with few regulators were also conducted for getting a deeper insight into the topic. For the sample distribution, since the survey was used so the sample is a random sample of the population whereas the population assumed as heterogeneous.

**Figure 2.** The relationship between the dependent and independent variables

Independent variables were Human Resource (HR) [Staff Adequacy, Knowledge & Experience, Training, Conveyance, Job satisfaction and Salaries], Information Technology (IT) [Online banking, Branch interconnectivity, Installation and Monitoring, Support, Online Reports and Centralized Document Processing], Consumer Financial Literacy (CFL) [Consumer education, Loan awareness, Loan Alternate available, Service utilization, Loan payback period and Consumer progress] and Internal Control System (ICS) [Employee monitoring, Check & Balance, Feedback collection, Time record maintenance, Internal
The dependent variable was MFB’s performance, as shown in Figure 2.

SPSS version – 16 was used to process the data. Ordinal Logistic Regression Model which is called Polytomous Universal Model (PLUM) in SPSS used to process the ordered response categories “strongly agree”, “agree”, “neutral”, “disagree”, “strongly disagree” numbered 1, 2, 3, 4, 5 respectively. PLUM is an extension of the general linear model for the ordinal categorical data. Ordinal measurement scales are used either for the unrefined measurements of interval/ratio scales or assessing the numeric scores to the ordinal categories (Hannah & Quigley, 1996).

3.1. Empirical Model

\[ MFB's\ performance = f(\text{operational risk}) \]

\[ \text{Operational risk} = f(HR, IT, CFL, ICS) \]

Where,

HR = Human Resource
IT = Information Technology
CFL = Consumer Financial Literacy
ICS = Internal Control System

Now by putting the values of operational risk from equation # 2 into equation # 1

\[ MFB's\ performance = f(HR, IT, CFL, ICS) \]

\[ MFB's\ performance^* = X' \beta + \delta \]

Where
10

\[ X' = \begin{bmatrix} \text{HR} \\ \text{IT} \\ \text{CFL} \\ \text{ICS} \end{bmatrix} \]

Where \( MFB's \) performance* is the exact but unobserved dependent variable, and \( X \) is the vector of independent variables which include the HR, IT, CFL, ICS, and \( \beta \) is the vector of regression coefficients which we wish to estimate. In addition, \( \delta \) represents the random error term. Further, suppose that while we cannot observe \( MFB's \) performance*, we can instead only observe the categories of response.

\[
MFB^* = \begin{cases} 
0 & \text{if } MFB^* \leq \mu_1 \\
1 & \text{if } \mu_1 < MFB^* \leq \mu_2 \\
2 & \text{if } \mu_2 < MFB^* \leq \mu_3 \\
\vdots & \\
N & \text{if } \mu_N < MFB^* 
\end{cases}
\]

Then the ordered logit technique will use the observations on \( MFB \), which is a form of censored data on \( MFB^* \), to fit the parameter vector \( \beta \).

4. Research findings/results

Descriptive statistics describe the main features as well as the response statistics of the collected data. Responses were as follows: KHBL; 26 respondents (24.5%), KMBL; 30 respondents (28.3%), TMBL; 25 respondents (23.6%) and NRSPBL with 25 respondents (23.6%). Respondents comprise Managers, Assistant Managers, Credit Officers, Supervisors, Business development officers.
(BDO’s) and others. Out of total sample size; 120 respondents; 106 responded. The received response includes 23 managers, 20 assistant managers, 7 credit officers, 11 supervisors, 20 BDO’s and 25 respondents were from the other designations.

Gender wise respondents were dichotomous. The result shows that 86.8% were male and 13.2% were female respondents. Response statistics for MFB’s performance show that 53.8% respondents were agreed with asked questions related to faced sustainability issues, service demand, interest rates, operation accomplishment, and investor’s confidence while 39.6% were not either sure about the current operational status in their respective banks or did not want to disclose their actual opinion.

The reliability test; internal consistency approach was used to check the reliability of the instrument (Kamukama, Ahiauzu, & Ntayi, 2011). Item total reliability and Cronbach’s alpha was calculated by using the SPSS. MFB’s performance along with independent variables has Cronbach’s alpha value 0.78 which means instrument significantly measures the variables under study. As for Nunally, (1978) recommends alpha value .70 as a minimum acceptable limit while this value should be between 0 and 1 (Santos, 1999), but the higher value shows higher reliability.

Further, sub-variables of independent variables are ranked according to their mean score in order to distinguish the factors of higher interest to improve operational performance. Therefore, factors with higher mean value need to be dealt at priority to achieve desired objectives. In the list of 24 factors; salaries, employee satisfaction, support, staff training and consumer education have been ranked at 1st, 2nd, 3rd, 4th and 5th position according to the score as shown in table 1. It is perceived that all the factors are important but salaries and employee satisfaction are more important. Therefore, it is quite difficult for MFB’s to achieve expected performance unless employees especially low-level staff is not rewarded sufficiently because satisfaction is directly linked to salaries and other benefits.
Model fitting information shows the significant relationship between dependent and independent variables. The probability of the model chi-square (33.178) was 0.00 which is less than a critical value 0.05 (P < 0.05). The goodness of fit statistic shows the fit of the logistic model of the actual outcomes (C. J. Peng, Lee, & Ingersoll, 2002). Results of Pearson and Deviance tests yielded $= 81.323$ with $P = 0.622$ and $= 65.685$ with $P = 0.949$ which is significant in both tests because $P > 0.05$ which means model is fit with the data. Pseudo R-Square is the proportion of the variation in the dependent variable that is explained by the independent variables in the model (C.-Y. J. Peng, So, Stage, & St John, 2002) which is measured through Cox and Snell tests and results show 26.9% positive change in the MFB’s performance, Nagelkerke shows a 32% while McFadden method shows 17% positive change in the MFB’s performance. Therefore, it means independent variables HR, IT, CFL and ICS have a significant positive impact on MFB’s performance which is due to a decrease in operational risk. If HR, IT, CFL and ICS improved then the operational risk will decrease and eventually MFB’s performance will increase.

<table>
<thead>
<tr>
<th>Variables/Factors</th>
<th>Mean Score</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Resource</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Adequacy</td>
<td>2.52</td>
<td>11</td>
</tr>
<tr>
<td>Knowledge &amp; Experience</td>
<td>2.60</td>
<td>9</td>
</tr>
<tr>
<td>Staff Training</td>
<td>2.74</td>
<td>4</td>
</tr>
<tr>
<td>Conveyance Facility</td>
<td>2.19</td>
<td>22</td>
</tr>
<tr>
<td>Employee Satisfaction</td>
<td>2.92</td>
<td>2</td>
</tr>
<tr>
<td>Salaries</td>
<td>3.06</td>
<td>1</td>
</tr>
<tr>
<td><strong>Information Technology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Banking</td>
<td>2.69</td>
<td>6</td>
</tr>
<tr>
<td>Interconnected Branches</td>
<td>2.64</td>
<td>7</td>
</tr>
<tr>
<td>Installation &amp; Maintenance</td>
<td>2.37</td>
<td>18</td>
</tr>
<tr>
<td>Support</td>
<td>2.86</td>
<td>3</td>
</tr>
<tr>
<td>Online Report</td>
<td>2.45</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 1. Perceived factors by Bank regulators which impede performance
<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized Processing</td>
<td>2.17</td>
<td>24</td>
</tr>
</tbody>
</table>

**Consumer Financial Literacy**

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Education</td>
<td>2.71</td>
<td>5</td>
</tr>
<tr>
<td>Loan use Awareness</td>
<td>2.30</td>
<td>19</td>
</tr>
<tr>
<td>Alternate Availability</td>
<td>2.22</td>
<td>21</td>
</tr>
<tr>
<td>Service Utilization</td>
<td>2.42</td>
<td>15</td>
</tr>
<tr>
<td>Loan Payback Period</td>
<td>2.38</td>
<td>17</td>
</tr>
<tr>
<td>Consumer Progress</td>
<td>2.63</td>
<td>8</td>
</tr>
</tbody>
</table>

**Internal Control System**

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees Monitoring</td>
<td>2.57</td>
<td>10</td>
</tr>
<tr>
<td>Check &amp; Balance</td>
<td>2.18</td>
<td>23</td>
</tr>
<tr>
<td>Feedback Collection</td>
<td>2.50</td>
<td>12</td>
</tr>
<tr>
<td>Transaction Maintenance</td>
<td>2.42</td>
<td>16</td>
</tr>
<tr>
<td>ICS Policies Existence</td>
<td>2.30</td>
<td>20</td>
</tr>
<tr>
<td>ICS Policies Updation</td>
<td>2.45</td>
<td>14</td>
</tr>
</tbody>
</table>

**4.1. Parameter Estimates**

Table 2 comprises regression coefficients and significant values of the variables. “Threshold” represents the dependent variable in the ordinal logistic regression. [MFBs = 1] is the cut off value which differentiates “strongly agree” from “Agree” and “Neutral”, [MFBs = 2] is the cut off value which separates the “strongly agree” and “agree” from response option “Neutral” while [MFBs = 3] is the cut off value which separates the “strongly agree”, “Agree”, “Neutral” and from disagree which is omitted by the software because of the nominal response. These respective estimates are intercept terms (α) especially used in the calculation of probabilities while the “Location” represents the estimates of the independent variables. The “Estimate” column shows regression coefficients (β). The odd ratio by exponentiation of the regression coefficients (β) is measured as it is a more intuitive measure of interpretation purpose (Demaris, 1995). Odd ratio means the change in the odds of MFB’s with the unit change in one independent variable (X) when the other independent variables are held constant (C.-Y. J. Peng et al., 2002) therefore if there is one unit increase in HR, IT, CFL, and ICS;
there will be 1.110 times, 1.844 times, 2.590 and 2.912 times change explained in MFB’s respectively.

**Table 2. Parameter Estimates**

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.(p)</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFB’s performance = 1</td>
<td>1.314</td>
<td>1.968</td>
<td>0.445</td>
<td>1</td>
<td>0.505</td>
<td>-</td>
</tr>
<tr>
<td>MFB’s performance = 2</td>
<td>6.852</td>
<td>1.843</td>
<td>13.819</td>
<td>1</td>
<td>0.000</td>
<td>-</td>
</tr>
<tr>
<td>MFB’s performance = 3</td>
<td>10.03</td>
<td>2.002</td>
<td>25.098</td>
<td>1</td>
<td>0.000</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.(p)</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>0.104</td>
<td>0.378</td>
<td>0.076</td>
<td>1</td>
<td>0.049</td>
<td>1.110</td>
</tr>
<tr>
<td>IT</td>
<td>0.612</td>
<td>0.427</td>
<td>2.047</td>
<td>1</td>
<td>0.043</td>
<td>2.912</td>
</tr>
<tr>
<td>CFL</td>
<td>0.952</td>
<td>0.396</td>
<td>5.777</td>
<td>1</td>
<td>0.016</td>
<td>1.844</td>
</tr>
<tr>
<td>ICS</td>
<td>1.069</td>
<td>0.433</td>
<td>6.101</td>
<td>1</td>
<td>0.014</td>
<td>2.590</td>
</tr>
</tbody>
</table>

Link function: Logit.

5. Discussion

We found that HR, IT, CFL and ICS significantly affect the MFB’s performance (p<0.05); however ICS explains the prominent impact. Grody, Harmanzis, & Kaple, (2007) asserted that the absence of proper procedures and laziness in following the prescribed guidelines or inadequate guidelines are the reasons of operational losses. According to the Sharabati, Naji Jawad, & Bontis, (2010) performance of the microfinance banks largely depends upon intellectual capital. Hitt, Bierman, & Shimizu, (2001) mentioned intellectual capital is “more favourable than the tangible resources to generate the competitive advantage”. Cagan (2008) mentioned that operational risk can be the most devastating one which exists at every stage regardless of the type of organization.

In addition, CFL is vital to improve performance as the consumers hardly know the use of finance to generate profit. The losses lead to the default risk nevertheless the major portion of this sector relies on foreign funds that increase the cost of capital and leads towards high-interest rates which ultimately increases the default rate (Hoque, Chishty, & Halloway, 2011).
6. Conclusions

We found out that change in HR, IT, CFL and ICS significantly impact MFB’s performance however the most important factor was ICS with respect to the intensity of impact (odds ratio = 2.912). It shows that the MFB’s have either weak or inadequate ICS with respect to the volume of the operations. The fluctuation in the mean scores also signifies to the problematic environment (Table 1).

Secondly, CFL is the variable of paramount importance (Odds ratio = 2.590) to improve performance moreover, its importance has already been realized by the SBP. Indeed, consumers do not have an adequate understanding of the use of borrowed money; consequently, there is a lack of progress. The third important variable is IT (Odds ratio = 1.844) with the weak and unsupportive set-up. HR is the fourth important variable (Odds ratio = 1.110) which shows that employees seem to have a problem with their salaries structure and training which increase the job dissatisfaction. It is found that especially, low-level management is more affected whereas the performance of MFB’s depends on them (Sharabati et al., 2010).

The general objective of this study was to identify and compare the factors influencing MFB’s performance in Pakistan. Indeed, this study identified a number of factors which need to be treated with priority to help MFB’s to be sustainable. The study concludes that HR, IT, CFL and ICS have a strategic effect on the MFB’s performance in Pakistan. These are the main factors which bubble up the sustainability problem (profitability and stable interest rates). The operational efficiency of MFB’s is not possible without better operational risk management. Following recommendations are given on the basis of this study.

- According to the $R^2$ statistic, Nagelkerke test shows about 32% change in MFB’s performance explained by operational risk due to the variation in the independent variables therefore, it is recommended to consider the impact of operational risk during decision making.
- All MFB’s working in Pakistan should do a strategic scan as per the mentioned variables (HR, IT, CFL and ICS) to find out relative weaknesses in order to devise better policies.

- It is strongly recommended that those banks which already have ICS; should upgrade and those who still do not have it; must implement for the better and successful accomplishment of operations.

- The satisfaction of employees is directly linked to the monetary benefits from their jobs. If these benefits are to be revised according to the market, education, and experience, it will definitely improve banks performance.

  Banks should start the CFL program either in the form of workshop or training sessions to generate financial awareness among consumers as well as the general public. Moreover, MFB’s regulators should emphasize on development and implementation of IT-based business models to reduce cost and increase profit. Further research can be interesting with large data which would definitely increase results generalization. Moreover, since the external factors are not considered in the paper so with exogenous factors one could bring rigorous results.

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Appendix 1
Dear respondents,

Hope this Questionnaire will find you in good health! I am Saghir Ahmed conducting research on “Determinants of Operational Risk and Microfinance Banks performance in Pakistan”, please do me favor by giving the information to the best of your knowledge though it will take your precious time but it’s a great contribution from your side. Much obliged!

PERSONAL INFORMATION

Q: 01. Gender
□ Male □ Female

Q: 02. Designation you have?
□ Manager □ Assistant Manager □ Credit officer □ Supervisor □ Business development officer □ Others

Q: 03. What is your work institution?
□ Khushali Bank □ Kashaf Microfinance Bank □ Tameer Microfinance Bank □ National Rural Support Program Microfinance Bank

DETERMINANTS OF OPERATIONAL RISK

Tick the appropriate option against each question according to given scale.

1-HUMAN RESOURCES

<table>
<thead>
<tr>
<th>Q: 01. Bank has sufficient staff for the smooth running of operations</th>
<th>1) Strongly agree</th>
<th>2) Agree</th>
<th>3) Neutral</th>
<th>4) Disagree</th>
<th>5) Strongly disagree</th>
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Q: 02. Staff has the job related knowledge & experience.

| Q: 03. Extensive training to the employees offered by the Bank. |
| Q: 04. Conveyance facility provided to employees (BDOs) to get access to the rural clients. |

| Q: 05. Right job is offered to a right person. |
| Q: 06. Proper guidance provided to employees by their respective |

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| Q: 05. Right job is offered to a right person. |
| Q: 06. Proper guidance provided to employees by their respective |
Q: 08. Employees are satisfied from their job and are loyal with.

Q: 09. BDOs pays visit to clients with regular frequency.

Q: 10. Competitive salaries offered by the bank.

II-INFORMATION TECHNOLOGY

Q: 01. Bank is offering the online banking facility.

Q: 02. Bank has the interconnected branch network.

Q: 03. Technology is properly installed and monitored by experts.

Q: 04. Uninterrupted technology support is available for routine operations?

Q: 05. Reports are available for all users at various levels?

Q: 06. Centralized processing of loan documentation exists?

III-CONSUMER FINANCIAL LITERACY

Q: 01. Bank has started any consumer education program.

Q: 02. Staff educates the consumers while lending for the use of loan

Q: 03. Information regarding different kinds of loan is provided.

Q: 04. The use of Microfinance services is increasing.

Q: 05. Consumers normally returned money on time.

Q: 06. Consumers are progressing by the use of products offered by (MFBs).

IV-INTERNAL CONTROL SYSTEM

Q: 01. Lending officers are regularly monitored by senior officials.

Q: 02. A proper check and balance is imposed on all transaction.
Q: 03. Feed back from customers is collected period wise.  

Q: 04. Time records are maintained and approved by an authorized official.  

Q: 05. Internal control system is followed in the institution.  

Q: 06. Well framed out internal control policies and procedures exist.  

Q: 07. Internal control system, policies and procedures are reviewed and updated with regular frequency to accommodate changing trends?  

V-MICROFINANCE BANKS PERFORMANCE  

<table>
<thead>
<tr>
<th></th>
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<td>Q: 01. The use of microfinance services is increasing.</td>
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<td>Q: 02. Sustainability is the major problem faced by Microfinance banks</td>
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<td>Q: 03. Investors losing their confidence to invest in MFB’s</td>
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<td>Q: 04. The numbers of borrowers and depositors are increasing.</td>
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<td>Q: 05. Interest rate is gradually increasing.</td>
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<td>Q: 06. The successful accomplishment of operations can add up in profitability.</td>
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