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RELATIONSHIP BETWEEN POLITICAL INSTABILITY AND DOMESTIC PRIVATE INVESTMENT IN PAKISTAN: A TIME SERIES ANALYSIS (1972-2009)

Haji Suleman Ali
Department of Management Sciences,
COMSATS Institute of Information and Technology Lahore, Pakistan.

Shujahat Haider Hashmi
Department of Management and Social Sciences,
Mohammad Ali Jinnah University Islamabad, Pakistan.

Arshad Hassan
Department of Management and Social Sciences,
Muhammad Ali Jinnah University Islamabad, Pakistan.

Abstract
This study investigates the relationship between political instability and domestic private investment in Pakistan for the period 1972-2009. The ARDL co-integration approach and Error Correction Model are employed to examine the existence of long-run relationship between political instability and domestic private investment as well as short-run dynamics of domestic private investment respectively. Results show that political instability has significant negative relation with domestic private investment both in long-run and short-run. Public sector investment and FDI crowd in domestic private investment. Based on the findings of the study it is suggested that there should be a stable political environment so that the structure of the financial system and all sectors of the economy can flourish in a good way and domestic as well as foreign investors avoid to hesitate while investing in the economy. The role of the financial institutions and financial intermediaries in enhancing the credit to the private sector should be increased and the financial institutions should improve their monitoring.

Keywords: Political instability, Domestic private investment, Crowding out hypothesis, FDI, Pakistan.

JEL Classification: E22, E44, H32, H54.
1. Introduction

Every decision about investment has three basic characteristics. Firstly, investment could not be reversed and expenditures incurred are unrecoverable. Secondly, the climate for investment is uncertain or dynamic and changes over time. Thirdly, the decisions regarding one should invest or not, time to invest and how much to invest also matter. People invest and trade more when they are confident in the future. Over the world it is common phenomena that when individual investors or firms are not sure about the future of their investment they hesitate to invest their money.

Political risk or instability is a global issue but its facets are different in every country. According to MIGA/World Bank Group Report (2011), apprehensions about political risk are mostly high for South-based investors. South-based investors are also concerned about macroeconomic instability and limited access to financing in the short term, but the majority of them see political risk as the biggest constraint to their investment plans over the medium term. This is in contrast with North-based investors, for whom macroeconomic instability remains the principal concern in both the short and medium term. According to MIGA-EIU Political Risk Survey 2011, about 15-25 percent of firms over the world have withdrawn and cancelled their investment plans over the past twelve months due to political risk in the form of war, terrorism and civil disturbance.

Political risk remains a salient constraint to investment in developing countries and is becoming more prominent over the next three years as current concerns about the global economy subside. MIGA’s 2009 World Investment and Political Risk report explored whether risk perceptions of the largest multinational enterprises (MNEs) based in BRIC (Brazil, Russian Federation, India, and China) countries were significantly different from those of a worldwide representative sample of MNEs. The conclusion was that risk perceptions, particularly with regard to political risk, are broadly
aligned. For 2011, MIGA conducted its third international survey that measured investor risk perceptions in the short and medium term. The results for the MIGA–Economist Intelligence Unit (EIU) 2011 survey reveal an increased perception of short-term risk, but continued medium-term optimism for investment opportunities in developing countries. According to Goldsmith (1987), political unrest and sudden changes in economic rules weaken the business and consumer confidence.

In Pakistan, governments have failed to create pleasant settings for the state and overseas investors for last many decades. Generally, public and private sector firms formulated their investment policies on the basis of objectives of investment, preferences and constraints that firms can face after implementing investment policy. Before implementation of investment policy firms also consider future expectations about the economy and capital markets. According to Manes (2009), the severest investment constraints in Pakistan are electricity shortage, corruption, macro-economic and political instability, crime, theft and disorder. Firms’ perceptions about above stated constraints have changed dramatically in Pakistan since 2002 when political instability was viewed as a severe constraint for investment by 40.4 percent of firms, while in 2007 the firms who view political instability as severe constraint increase up to 46.8 percent. In 2002, 34.5 percent of firms view macro-economic instability issue as a sever constraint while the firms in 2007 increase up to 56.6 percent who view macro-economic instability issue as a sever constraint for domestic investment.

Previously, most studies were conducted to explore the relation between political instability and investment in those regimes where the element of political instability is not a major issue. This study selected a regime where the element of political instability is a major issue for the economy. In Pakistan, merely economic factors are considered which cause high volatility in investment climate and
economical growth while political factors are ignored. In Pakistan, due to increasing political instability in recent years, private sector is shrinking day by day because of closing of firms, shifting of businesses in neighbor countries and avoiding long term investment by firms in the private sector. In the country, situation is severe for private sector; there is a need to conduct a study to explore the relationship between political instability and domestic private investment.

The main objectives of the study are to analyze the relationship between political instability and domestic private investment and to investigate whether both public sector’s investment and foreign direct investment crowd out domestic private investment.

2. Literature Review:

According to Karagoz (2010), it can be said that in developing countries major determinants of private domestic investments are level of domestic production, real interest rate, public sector investments, amount of available credit, and volume of external debt, exchange rate, and overall macroeconomic stability. According to Ghura and Goodwin (2002), in developing countries, real GDP growth, increase in government investment, reduction in credit to the government, improvements in financial institutions and declines in world interest rates enhanced the privat investment. In Pakistan, Majeed and Khan (2008) investigated the factors that affect private sector’s investment for the period of 1970 to 2006. The study found that private sector output, net capital inflows to the private sector, total sources of funds and past capital stock are significant factors that affect private sector’s investment. Furthermore, the study concluded that public investment crowd out private investment and bank credit availability to private sector has a positive impact on private investment.
Ferdner (1993) investigated the impact of uncertainty on investment spending and concluded in his study that uncertainty stimulates economic agents to delay irreversible investment expenditures. Feng (2001) found in his study that political freedom boosts up the private investment by improving human capital formation, political instability negatively affect private investment and policy uncertainty has adverse effect on private sector’s investment. Campos and Nugent (2003) investigated the relation between aggregate investment and political instability by using Granger Causality technique in 94 developing countries over the period of 1960 to 1995. Results indicated that there is a causal relation going from political instability to investment but interestingly the relation found by the study is positive in low income countries. Alesina and Perotti (1996) concluded in his study that income inequality raises socio-political instability in the economy which makes the economic environment uncertain and ultimately reduced the investment.

Le (2004) identified political in nature and economic determinants of private sector’s investment by testing data from 25 developing countries for the period covering 21 years. The author found that peaceful demonstrations enhance private sector’s investment while aggressive protests hamper the private sector’s investment. The socio-political instability is caused by illegitimate change in government which discourages investors to invest in private sector. Jolio and Yook (2012) conducted a study on political uncertainty and corporate investment cycle. The study found that firms reduced their investment expenditures by an average of 4.8 percent around election years and firms reduce investment expenditures until the election uncertainty is resolved.

Aysan et al. (2007) highlighted that political instability results in uncertain situation within the economy due to which industrialists hesitate to make investment decisions. Zouhaier and Kefi (2012) conducted a study to explore the interaction between political instability and investment by using a dynamic balanced panel data
model. They concluded that there is a negative relation between political instability and investment.

Monadjemi and Huh (1998) analyzed the relationship between government spending and private investment by employing ECM. The study concludes that in Australia, Britain and the United States, government investments slightly crowd out private investment. The study also concluded that corporate profitability positively affects private investment and interest negatively affects private sector’s investment. Mamatzakis (2001) conducted a study to explore the relation among government spending and private sector’s investment in Greece, the results showed that public or government investment affect private investment positively in long run and government consumption has negative impact on private investment. Holcomb (2005), Naqvi (2002), and Hyder (2001) found in their studies that public investment has crowding in effect on private investment. Shah et al. (2010) and Ghazali (2010) concluded that FDI crowds in domestic investment in Pakistan.

After critically reviewing the literature it has been found that there are limited research studies that work on political instability in Pakistan, these limited studies investigate political instability’s impact on economic growth and inflation only like Qureshi et al. (2010), Khan and Saqib (2009) respectively. There was no a single study conducted in Pakistan to investigate the relation between political instability and private sector’s domestic investment. Most of the studies were conducted to determine the macroeconomic factors that can affect investment in Pakistan like Saghir and Khan (2012), Bibi et al., (2012) and Hyder et al. (2003). Major studies that focused political instability over the world include Zouhaier and Kefi (2012), Jolie and Yook (2012), Dimitraki (2010), Kottari and Escalera (2008), Aysan et al., (2007), Pin (2006), LE (2004), Campos and Nugent (2003), Fielding (2003), stasavage (2002), Feng (2001) and Alesina and Perotti (1996). All these studies found negative relation of political instability with investment and economic growth except Campos and Nugent’s study in which a
positive relation was found between political instability and investment in low income countries.

3. Methodology

Time series data for domestic private investment, Public investment, and credit to private sector is taken from World Development Indicators database while data for lending interest rate and FDI is obtained from State Bank of Pakistan for 38 years covering the period over 1972 to 2009. The annual data for political instability measures is extracted from a book, “Pakistan 58 years” (Razi and Shakir, 2005). There are numerous techniques to explore the relationship between variables in long run for time series data. Engle and Granger (1987), Johansan-Juselius (1990) test, Philips and Hansen’s (1990) OLS and maximum likelihood based Johansen are most commonly used. One of the major drawbacks of these techniques is that these tests required that the variables should be integrated of order one. For small samples one can’t employ these techniques; these techniques also have low power as compared to ARDL approach to co-integration. One of the important advantages of using Autoregressive Distributed Lag technique is that this technique be careful for endogeneity of the independent variables. By using ARDL and Error Correction Model (ECM) this study has explored the long-run relation and short-run equilibrium path of domestic private investment with political instability, public sector’s investment, FDI, lending interest rate and credit availability.

Construction of political Instability index

Political instability in Pakistan is measured by total strikes, peaceful demonstrations, riots, assassinations, longevity of government, change in government and type of regime and all these measures are used to construct a combined index. War is ignored because there is no observation of major external war in the period covered by this study.
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The index is constructed with the help of SPSS 17.0 by using Principal Component Method. This study uses the first component. Various researchers like Alesina and Perotti (1996), Campos and Nugent (1999), Institute of Integrated Development Studies, Nepal (2005) and Qureshi et al. (2010) used Principal component method to construct index of political instability. They also use first principal component.

Summary of political instability index

All variables selected to measure political instability index are very appropriate to Pakistani context. A concise review of PC 1 is presented in Table 3.1 in Appendix.

\[
PI = 0.022 V_1 + 0.099 V_2 - 0.036 V_3 - 0.0274 V_4 - 0.505 V_5 + 0.207 V_6 \\
+ 0.442 V_7
\]  

(3.1)

Where

V1 to V7 are defined in appendix.

By using above equation political instability index is calculated and standardized so that results remain unbiased. Then the political instability index is transformed with mean 100 and standard deviation 10 for better results.¹

¹ Institute of Integrated Development studies, Nepal (2005).
Political instability measures are defined as follow:

**General Strikes**
When one thousand or more workers from an industry involving more than one employer and that are against public government strategies e.g. PTCL workers strike on August 21, 2010.

**Demonstrations**
Nonviolent community crowd of one hundred peoples voicing their resistance to state’s policies.

**Riots**
Aggressive protest of hundred or more citizens by using physical force.

**Assassinations**
Murder of prominent political leaders or any other famous personality per year.

**Government’s longevity**
Number of years a government rule.

**Governments change**
Any instance of government change.

**Regime Type**
Military led government or democracy.

**Model Specification**
The private domestic investment equation is specified in the form of ARDL Model in such a general form.
\[ \Delta \ln PRVINV = \alpha_0 + \sum_{i=1}^{m} \lambda_i \ln PRVINV_{t-1} + \sum_{i=1}^{n} \gamma_i \ln PRVINV_{t} + \sum_{i=1}^{s} \delta_i \ln PRVINV_{t-1} + \sum_{i=1}^{r} \xi_i \ln PI_{t} + \sum_{i=1}^{t} \omega_i \ln LIR_{t-1} - \sum_{i=1}^{u} \lambda_i \ln CRPRV_{t-1} - 1 + \sum_{i=1}^{v} \delta_i \ln PUBINV_{t-1} - i + \sum_{i=1}^{w} \xi_i \ln FDI_{t-1} - i + \sum_{i=1}^{x} \lambda_i \ln PRVINV_{t} - 1 + \sum_{i=1}^{y} \delta_i \ln PRVINV_{t} - i + \lambda_3 \ln LIR_{t-1} + \lambda_4 \ln CRPRV_{t-1} - i + \lambda_5 \ln PUBINV_{t-1} + \lambda_6 \ln FDI_{t-1} - i + \xi EC_{t-1} - i \] (3.2)

In the above equation, the terms with \( \lambda \)s represent the long run relationship while the terms with the summation signs represent the short run dynamics and \( EC_{t-1} \) is the error correction term.

Where

\( \ln PRVINV \) = Domestic private investment (Gross Fixed capital formation in private sector) as percentage of GDP in logarithm.

\( \pi \) = Political instability index, theoretically its negative relation with investment is expected.

\( \ln LIR \) = Lending interest rate, negative relation of this variable is also expected with investment.

\( \ln CRPRV \) = Credit to private sector percentage of GDP in logarithm theoretically its coefficient should be positive.

\( \ln PUBINV \) = Public investment in logarithm, the relation of this variable is ambiguous it may be positive or negative.

\( FDI \) = Foreign direct investment in the form of percentage of gross domestic product, theoretically FDI should have positive relation with investment.
4. Results

Descriptive Statistics

Table 4.1 in Appendix presents descriptive statistics. Average lending interest rate in Pakistan in 38 years is 11.71% which is quite higher rate. Volatility in domestic private investment and public investment is approximately same but foreign direct investment is more volatile as compared to domestic private investment and public investment in Pakistan.

Unit Root Test

Before estimation of the model, data was tested for time series properties. For this purpose, ADF test and Phillips Perron Test are used to see the variable’s level of integration. The outcome of the ADF and PP tests are given in Table 4.4 in Appendix. The results are clearly indicating that the domestic private investment, political instability, lending interest rate and credit to private sector are non stationary at level but series become stationary after first difference, only public sector investment and foreign direct investment are stationary at level.

ARDL Co-integration Approach

The relationship between political instability and domestic private investment is estimated by employing ARDL approach. Lag 2 is selected on SB criterion; LM test outcome indicates no serial correlation. The results for lag order statistic and diagnostic test are given in the Table 4.5 (a) and 4.5 (b) in Appendix. Results are showing that there is no problem of serial correlation, normality and heteroscedasticity within the series included in the model.
Table 4.6 in Appendix presents the long run coefficients under Autoregressive Distributed Lag Approach. Results indicate that lending interest rate is statistically insignificant, political instability; public sector’s investment, credit availability and foreign direct investments have significant relation with domestic private investment in long run. Public sector’s investment is crowding in domestic private investment in the long run so the crowding out hypothesis is not verified in Pakistan and results are consistent with Holcomb (2005), Naqvi (2002), Hyder (2001). The results are clearly indicating that in long run FDI crowd in domestic private investment and the results are in line with Shah et al. (2010) and Ghazali (2010).

Results show that when political instability increases by one percent it leads 0.19 percent reduction in domestic private investment in long run. Results also indicate that a one - percent increase in FDI brings about 0.01 percent increase in domestic private investment in long run. In long run, a one - percent increase in credit availability will reduce domestic investment by 0.08 percent. The relation of one lag period public sector’s investment with domestic private investment is significant and positive.

**Error Correction Model**

Table 4.6 in Appendix shows that the Error Correction term $ECM_{t-1}$ is negative and highly significant. Its coefficient -0.31 shows a quick adjustment practice and demonstrates that 31 percent disequilibrium of the preceding period in domestic private investment from its equilibrium path will be corrected in the current year. The short run results show that when political instability increases by one percent, it will reduce domestic private investment by 0.06 percent in short run.

Results are also indicating that when credit availability increases by one percent in the market, it causes 0.08 percent reduction in domestic private investment in short run. Credit availability is
significant and negatively affects domestic private investment thus implying that increase in credit availability will not enhance domestic private investment, as the economic theory suggests. One of the possible explanations for the negative relation of credit availability with domestic private investment in the context of Pakistan could be that in developing countries, like Pakistan, loan is taken for investment purpose but this loan is not actually used for investment but for meeting working capital needs and to fulfill circular debts. The second possible explanation is that in Pakistan commercial and specialized banks have no satisfactory monitoring channels to check whether the firms are using the amount of loan properly or not. Change in foreign direct investment has a negligible impact on domestic private investment. In short and long run, political instability significantly and negatively affects domestic private investment and results are consistent with various studies like Zouhaier and Kefi (2012), Aysan et al. (2007), LE (2004), Feng (2001) and Alesina and Perotti (1996).

CUSM and CUSUMSQ

A graphical representation of CUSM and CUSUMSQ are shown in Figures 4.1 and 4.2 in Appendix. Figures 4.1 and 4.2 are showing that both CUSUM and CUSUMSQ are within the critical bounds of 5 percent which imply that all coefficients of short run error correction model are stable.

5. Conclusions

This study finds the relationship between political instability and domestic private investment in Pakistan covering the period over 1972-2009. The ARDL approach and ECM are employed for estimation. The study concludes that political instability has significant negative relation with domestic private investment in short and long-run in Pakistan. As the operational unsystematic risk rises in the economy in the form of political instability, future becomes more uncertain for investors. As a result, investors delay their investment decisions.
which cause a significant reduction in investment. The crowding out hypothesis regarding public investment and foreign direct investment is not verified and results indicate crowding in effect which justify the mobility of public development funds towards private sector through service providers, politicians and civil servants instead of public development projects.

Based on the findings this study recommend following implications:

- As this study mainly focuses on relation between political instability and domestic investment and finds that political instability negatively affects domestic investment both in short and long run in Pakistan, the democratic system in the country should be effective so that the tendency of such political events which create political instability in the environment could be minimized.

- Judiciary and military should support the elected governments to complete their terms so that instability rises due to repeated government change could be reduced.

- Energy crises must be resolved on long term basis, because these crises lead to strikes and demonstrations which contribute to political instability and lose investors confidence.

- Government should enhance public spending on social and physical infrastructure and public investment as well as fiscal incentives for private investors promoting “green” growth (including through greater energy efficiency and clean energy generation).

- Domestic investors should take the advantage of insurance companies to minimize their losses due to political risks.
As such, whilst contributing to the theoretical debate the current study has also highlighted several areas for future research as follows:

1. The current study has ignored some of the basic determinants of domestic private investment like real interest rate, GDP, external debt and saving due to the issue of multicollinearity. For future studies, researchers should also include these variables in the model after proper treatment of these variables to gain better insights.

2. Political instability index can be made more effective by including more relevant measures which this study has ignored like suicide attacks in the country and target killings etc.

3. Furthermore, the scholars can expand the sample period by arranging recent data on political instability.

4. Relation of political instability should also be examined with public investment and foreign direct investment.
References


APPENDIX

Table: 3.1 Component score coefficient matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>PC 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strikes</td>
<td>0.022</td>
</tr>
<tr>
<td>Assassinations</td>
<td>0.099</td>
</tr>
<tr>
<td>Riots</td>
<td>-0.036</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>-0.274</td>
</tr>
<tr>
<td>Government longevity</td>
<td>-0.505</td>
</tr>
<tr>
<td>Government change</td>
<td>0.207</td>
</tr>
<tr>
<td>Regime type</td>
<td>0.442</td>
</tr>
</tbody>
</table>

\[ PI = 0.022 V_1 + 0.099 V_2 - 0.036 V_3 - 0.0274 V_4 - 0.505 V_5 + 0.207 V_6 + 0.442 V_7, \]

Where

PI represents political instability index it is used as independent variable and is characterized by following measures:

- \( V_1 \) = General strikes
- \( V_2 \) = Demonstrations
- \( V_3 \) = Riots
- \( V_4 \) = Assassinations
- \( V_5 \) = Government change (dummy; incase of government change it will take the value of 1 otherwise it will be 0).
- \( V_6 \) = Regime type (dummy; Democratic government =1, Military led government =0).
- \( V_7 \) = Government longevity
Table 4.1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Statistics</th>
<th>PRINV</th>
<th>PI</th>
<th>LIR</th>
<th>CRPRV</th>
<th>PUBINV</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.12</td>
<td>94.23</td>
<td>11.71</td>
<td>26.80</td>
<td>23.90</td>
<td>0.853</td>
</tr>
<tr>
<td>Median</td>
<td>2.141</td>
<td>94.19</td>
<td>11.350</td>
<td>27.057</td>
<td>23.953</td>
<td>0.575</td>
</tr>
<tr>
<td>Std. Dev</td>
<td>0.328</td>
<td>0.132</td>
<td>1.876</td>
<td>0.654</td>
<td>0.403</td>
<td>0.908</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.195</td>
<td>2.433</td>
<td>-0.188</td>
<td>-0.410</td>
<td>-1.376</td>
<td>1.943</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.37</td>
<td>94.05</td>
<td>6.99</td>
<td>25.57</td>
<td>24.72</td>
<td>0.07</td>
</tr>
<tr>
<td>Maximum</td>
<td>2.75</td>
<td>94.74</td>
<td>15.42</td>
<td>27.91</td>
<td>23.45</td>
<td>3.78</td>
</tr>
<tr>
<td>N</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>
Table 4.2: Pearson Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>PRINV</th>
<th>PI</th>
<th>LIR</th>
<th>CRPRV</th>
<th>PUBINV</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINV</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.589**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIR</td>
<td>0.208</td>
<td>0.349*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRPRV</td>
<td>0.141</td>
<td>0.077</td>
<td>0.448**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUBINV</td>
<td>0.715**</td>
<td>0.593**</td>
<td>0.460**</td>
<td>0.343*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>0.161</td>
<td>-0.15</td>
<td>0.171</td>
<td>0.146</td>
<td>0.042</td>
<td>1</td>
</tr>
</tbody>
</table>

** Indicate significance at 1% level.
* Indicate significance at 5% level.
### Table 4.3: Co-linearity Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.609</td>
<td>1.643</td>
</tr>
<tr>
<td>LIR</td>
<td>0.658</td>
<td>1.521</td>
</tr>
<tr>
<td>CRPRV</td>
<td>0.734</td>
<td>1.362</td>
</tr>
<tr>
<td>PUBINV</td>
<td>0.536</td>
<td>1.865</td>
</tr>
<tr>
<td>FDI</td>
<td>0.959</td>
<td>1.042</td>
</tr>
</tbody>
</table>

Dependent Variable: PRVINV

### Table 4.4: The Unit Root Results

<table>
<thead>
<tr>
<th></th>
<th>ADF- Level</th>
<th>ADF-1&lt;sup&gt;st&lt;/sup&gt; Diff.</th>
<th>PP- Level</th>
<th>PP-1&lt;sup&gt;st&lt;/sup&gt; Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRVINV</td>
<td>-0.961</td>
<td>-5.742</td>
<td>-0.849</td>
<td>-6.857</td>
</tr>
<tr>
<td>PI</td>
<td>0.548</td>
<td>-5.547</td>
<td>0.604</td>
<td>-5.560</td>
</tr>
<tr>
<td>LIR</td>
<td>-2.494</td>
<td>-5.260</td>
<td>-2.621</td>
<td>-5.260</td>
</tr>
<tr>
<td>CRPRV</td>
<td>-2.941</td>
<td>-4.389</td>
<td>-3.122</td>
<td>-4.096</td>
</tr>
<tr>
<td>PUBINV</td>
<td>-0.842</td>
<td>-4.170</td>
<td>-1.171</td>
<td>-4.170</td>
</tr>
<tr>
<td>FDI</td>
<td>-6.059</td>
<td>-10.095</td>
<td>-6.059</td>
<td>-35.709</td>
</tr>
<tr>
<td>1% Critic. Value</td>
<td>-3.621</td>
<td>-3.626</td>
<td>-3.621</td>
<td>-3.626</td>
</tr>
<tr>
<td>5% Critic. Value</td>
<td>-2.943</td>
<td>-2.945</td>
<td>-2.943</td>
<td>-2.945</td>
</tr>
<tr>
<td>10% Critic. Value</td>
<td>-2.610</td>
<td>-2.611</td>
<td>-2.610</td>
<td>-2.611</td>
</tr>
</tbody>
</table>
Table 4.5 (a): Lag Order Selection

<table>
<thead>
<tr>
<th>Lag</th>
<th>AIC</th>
<th>SBC</th>
<th>LL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27.36</td>
<td>21.72</td>
<td>34.36</td>
</tr>
<tr>
<td>2</td>
<td>26.08</td>
<td>20.54*</td>
<td>33.08</td>
</tr>
<tr>
<td>3</td>
<td>35.55</td>
<td>20.77</td>
<td>54.55</td>
</tr>
</tbody>
</table>

Table 4.5 (b): Diagnostic Tests

<table>
<thead>
<tr>
<th>Property</th>
<th>Test</th>
<th>CHSQ ($\chi^2$)</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Correlation</td>
<td>LM Test</td>
<td>2.801</td>
<td>0.094</td>
</tr>
<tr>
<td>Functional Form</td>
<td>Ramsey's RESET test</td>
<td>0.033</td>
<td>0.855</td>
</tr>
<tr>
<td>Normality</td>
<td>Test of skewness and kurtosis</td>
<td>1.244</td>
<td>0.537</td>
</tr>
<tr>
<td>Heteroscedasticity</td>
<td>Based on regression of squared residuals</td>
<td>3.576</td>
<td>0.060</td>
</tr>
</tbody>
</table>

Table 4.6: ARDL (1,0,0,1,0,0) Long Run Coefficients Selected on SB Criterion

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>S. Error</th>
<th>t-Ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>-0.1954</td>
<td>0.0622</td>
<td>-3.1379</td>
<td>0.004</td>
</tr>
<tr>
<td>LIR</td>
<td>-0.0499</td>
<td>0.0375</td>
<td>-1.3324</td>
<td>0.193</td>
</tr>
<tr>
<td>PUBINV</td>
<td>1.0907</td>
<td>0.2248</td>
<td>4.8507</td>
<td>0.000</td>
</tr>
<tr>
<td>CRPRV</td>
<td>-0.2649</td>
<td>0.1177</td>
<td>-2.2499</td>
<td>0.032</td>
</tr>
<tr>
<td>FDI</td>
<td>0.0123</td>
<td>0.0533</td>
<td>2.3075</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Dependent Variable: \( \text{LnPRVINV} \)
Table 4.7: ARDL (1,0,1,0,0) Error Correction Mechanism (Short Run Dynamics)

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>S. Error</th>
<th>t-Ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>dPI</td>
<td>-0.0620</td>
<td>0.0259</td>
<td>-2.5933</td>
<td>0.023</td>
</tr>
<tr>
<td>dLIR</td>
<td>-0.0158</td>
<td>0.0116</td>
<td>-1.3602</td>
<td>0.184</td>
</tr>
<tr>
<td>dPUBINV</td>
<td>-0.0410</td>
<td>0.1842</td>
<td>-0.4222</td>
<td>0.625</td>
</tr>
<tr>
<td>dCRPRV</td>
<td>-0.0840</td>
<td>0.0353</td>
<td>-2.7976</td>
<td>0.024</td>
</tr>
<tr>
<td>dFDI</td>
<td>0.0039</td>
<td>0.0013</td>
<td>2.8507</td>
<td>0.008</td>
</tr>
<tr>
<td>ECM (-1)</td>
<td>-0.3173</td>
<td>0.0872</td>
<td>-3.6383</td>
<td>0.001</td>
</tr>
</tbody>
</table>

R-Squared: 0.4438  
R-Adjusted-Squared: 0.3287  
F-Statistics: 4.6287  
F-Significance: 0.003  
D.W. Statistics: 2.4466
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Fig. 4.1. Plot of Cumulative Sum of Recursive Residuals

Fig. 4.2. Plot of Cumulative Sum of Squares of Recursive Residuals
Index Transformation Formula:

Transformed Index = a+(bx)

Where

\[ a = (X_2 - bX_1) \]
\[ b = (SD_2 / SD_1) \]

<table>
<thead>
<tr>
<th>x_1</th>
<th>45.64734</th>
<th>x_2</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD_1</td>
<td>78.29518</td>
<td>SD_2</td>
<td>10</td>
</tr>
</tbody>
</table>

Comparison between Democratic and Military Governments

<table>
<thead>
<tr>
<th>Regime Type</th>
<th>Duration (years)</th>
<th>Average Political Instability Index Value</th>
<th>Average Domestic Private Investment (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy</td>
<td>18</td>
<td>94.35715686</td>
<td>9.387974377</td>
</tr>
<tr>
<td>Military</td>
<td>20</td>
<td>94.22501445</td>
<td>9.685404211</td>
</tr>
</tbody>
</table>

*Self calculated*
IMPACT OF VILLAGE GROUP FINANCIAL SERVICES ON LIVING STANDARD OF HOUSEHOLDS IN GILGIT: A CASE STUDY OF THE FIRST MICRO FINANCE BANK GILGIT

Pervez Zamurrad Janjua
Department of Economics, International Islamic University (IIUI), Islamabad, Pakistan.

Malik Muhammad
Department of Economics, International Islamic University (IIUI), Islamabad, Pakistan.

Kifayat Ullah
Department of Economics, Karakurum International University, Gilgit-Baltistan, Pakistan.

Abstract:

The role of microfinance in economic development has been emphasized in the literature. Recently, a number of microfinance financial institutions have been established in Pakistan to improve the living standard at grass route level. This study evaluates the impact of Village Group Financial Services (VGFS) on the households’ income, expenditure and net worth in five remote villages of Gilgit. VGFS is a special scheme of the First Micro Finance Bank (FMFB) designed to assist the rural poor of Gilgit-Baltistan. The scheme has been initiated following the practical field experience of Aga Khan Rural Support Program (AKRSP) during the last decade. A total of 200 female respondents are selected through multi-stage disproportionate stratified sampling technique, wherein 100 respondents of treatment group are selected on random basis and the rest 100 respondents of control group are selected on the basis of score card matching of treatment group. The targeted respondents from both groups are interviewed with well designed and pre-tested questionnaire. The results of study show significant improvement in income and expenditure levels of rural poor households in the treatment group. However, no significant differences were found between control and treatment households for net-worth and saving portions. Although microfinance can be considered as an effective tool, yet additional interventions are required for poverty alleviation and improving standards of living of poor.

Keywords: Microfinance, Village Group Financial Services, Living Standard Indicators, Mean Difference Model, Poverty Score Card, Propensity Score Matching

JEL Classification: G290

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1. Introduction

Microfinance is a form of financial development that primarily focuses on alleviating poverty through providing financial services to the poor (Barr 2005). These financial services include credit, savings and insurance products. AKRSP has been a pioneer in the field of microfinance in Pakistan. Many of the existing NGOs have replicated the AKRSP model in designing and implementing key aspects of their microfinance operations. AKRSP started its operations in an area with a poor natural resource base, rapid population growth, poor communication facilities, lack of employment opportunities and few banking facilities. The essential features of AKRSP microfinance program include low transaction costs for the clients, improvement in saving through loans and provision of information about saving and credit (Hussain 2006). AKRSP community development model is based on the principles of Raiffeisen1. To mobilize potential of the villagers a model was developed based on three principles, namely formation of financial capital through saving, upgrading human skills through training and organization of the people (AKRSP Valleys in Transition 2006). On these principles AKRSP established First Micro Finance Bank.

The bank offers Village Group Financial Services (VGFS) to poor rural communities. This group based lending is one of the new and popular approaches of lending small amounts of money to a large number of clients. The size of the group varies between 15 and 35 members. The group self-selects its members before acquiring a loan. Only two members of the same household can acquire credit for different purposes. Loans are granted to selected member(s) of the group first and then to the rest of the members. Group members are jointly accountable for the repayment of each other’s loans and usually meet weekly to collect repayments. To ensure repayment, peer pressure and joint liability works very well. The entire group will not be eligible for further loans, even if one member of the group becomes defaulter. The creditworthiness of the borrower is therefore determined by the members rather than by the microfinance institution.

1 Friedrich Wilhelm Raiffeisen (1818 – 1888), a German mayor and pioneer of rural credit union, based his idea of cooperation on three ‘S’, namely self-help, self-governance and self-responsibility. For detail see http://en.wikipedia.org/wiki/Friedrich_Wilhelm_Raiffeisen
The vast majority of the population in Gilgit is rural and depends on subsistence farming as a source of livelihood. A fundamental goal of rural development intervention is to reduce incidence of poverty in the communities through increasing per capita incomes. According to AKRSP socioeconomic survey the incidence of poverty in Gilgit in the year 2005 was 29% (AKRSP 2005). Since 2002 the FMFB is providing group based financial services to address the problem of poverty and to improve living standard in this region. In this regard FMFB Gilgit mobilized PKR 58 million from 7145 depositors till 2007. The total number and amount of loans were 3365 and PKR 93 million, respectively, wherein 2411 male borrowed PKR 71 million and 954 female borrowed PKR 22 million. How far the VGFS of FMFB has been reaching to the absolute poor and contributing toward improving living standard in Gilgit? There is some evidence that these activities and services have contributed towards poverty reduction by creating trust and confidence, through the growth and strength of the community organizations. However, there exists a need to investigate the exact nature of the role of VGFS of FMFB toward improving living standard in Gilgit.

The basic research questions of this study are,

1. Whether a higher proportion of the beneficiaries of the VGFS are poor?
2. Whether the income, expenditure and net-worth levels of treatment households are higher than the controlled households?

Scope and Limitation of the Study

A number of studies have been conducted on the role of microfinance in poverty alleviation and rural development at global and national level. However, in this regard, no independent research has been done so far for about the Northern Areas of Pakistan including Gilgit. The study on Gilgit is important due to its specific socioeconomic conditions. The study is designed to address the issues and limitations faced by microfinance sector in this region. The finding of this study may also help us to understand the role of microfinance institutions in other regions of Pakistan. However, there are certain limitations of this study. First, the study is restricted to district Gilgit only. Second,
due to non-availability of base line data we use simple difference estimation technique instead of more reliable double difference technique for impact analysis. Third, the analysis is limited to three core variables of living standard, namely income, expenditure and net-worth.

2. Literature Review

The term “microfinance” is concerned with the provision of those financial services which are undertaken to target the low income groups. These financial services include credit, savings and insurance products. The Canadian International Development Agency (CIDA) defines microfinance as “the provision of a broad range of financial services to poor, low income households and micro-enterprises usually lacking access to formal financial institutions” (CIDA 2002).

The Asian Development Bank (2007) conducted a “Special Evaluation Study” on the effect of microfinance operations on poor rural households and the status of women in Bangladesh and Philippine to find out whether its projects had reduced rural poverty by improving the status of women. Using simple difference method of impact evaluation, the study concluded on the basis of a focus group discussion that the projects had positive and encouraging effects on the status of women at household level.

Rajasekhar (2002) found an increase in the saving and income of the women through microfinance program of SHARE in Tamil Nadu. Reviewing NGO-led micro-credit programs in several developing countries and comparing them with state-led poverty alleviation schemes in India, Chavan and Ramakumar (2002) empirically found that micro-credit programs had slightly improved the income levels of their clients. However the study found that the participants of the micro-credit program had not gained much in the areas like skill enhancement and technological improvements.

Rashid et al (2004) conducted a study on ‘Micro-Lending for Small Farmers in Bangladesh’. Collecting data from seven villages among five different geographic locations through multi-stage sampling method, authors concluded that most of the small farm households relied on the informal financial sector to fulfill their credit needs. They neither had access to the micro-lending programs
administered by the NGOs nor the formal financial sector. The study concluded that there was room to increase agriculture production by providing credit services to small farm households through micro-credit institutions.

Setboonsarng and Parpiev (2008) found that Khushhali Bank has been effective in reaching out to the poor in remote rural areas of Pakistan and that microfinance institutions have played an important role in the achievement of Millennium Development Goals in Pakistan.

Bandyopadhyay (2006) examined that microfinance played a vital role in SAARC countries (India, Bhutan, Bangladesh, Nepal and Pakistan) in the development of capability of treatment group through the formation of social capital at the lowest social network level.

Mumtaz (2000), in context of microfinance schemes, examined the role of National Rural Support Program (NRSP) in the alleviation of urban poverty through its Urban Poverty Alleviation Project (UAPP) in Rawalpindi and Islamabad. UPAP provides financial services to poor women on group basis which were neglected by traditional banking system. The major finding of the study was that the project emphasis is on “boosting the household economy” rather than on the “empowerment of women”.

Zaidi et al (2007) conducted a study on Social Impact Assessment of Microfinance Programmes in Pakistan. The study examined six major microfinance institutions (Asasah, Orangi Charitable Trust, Akhuwat, Sindh Agricultural and Forestry Workers Coordinating Organization, National Rural Support Programme and Kashf) following simple difference and difference in difference method of impact evaluation. The most important finding of the study was that the economic and social impact on the lives of micro-credit participants for most of the institutions was limited. Although some differences in the socioeconomic aspects of the lives of treatment and control groups were observed, but these differences were statistically insignificant.

Saboor et al (2009) analyzed the impact of micro-credit on the farm income and agricultural production in Rawalpindi district. The study concluded that the income of treatment group (farmers
with micro-credit) was higher than that of control group (farmers without micro-credit). According to the authors livestock played an important role in higher farm income. Similarly mechanization of agriculture, improvement of inputs used in agriculture production and availability of credit also has positive effects on farm income of treatment group.

Abbas et al (2005) analyzed the role of micro-credit in income generation and poverty in Faisalabad district. Data was collected from three branches of National Bank of Pakistan at different locations. The data was categorized broadly in two groups i.e., agricultural and non-agricultural. Based on difference of means test, the study concluded positive correlation between micro-credit and income generation. Micro-credit helped to reduce poverty in this region.

Javed et al (2006) examined the impact of micro-credit scheme of NRSP on the socioeconomic conditions of female community in district Rawalakot, Azad Jammu and Kashmir. A sample of 100 female borrowers was selected from all the communities' organizations (COs) working under the supervision of NRSP. The study concluded that the income and expenditure of female increased to some extent as reported by majority of the respondents.

Dhavamani (2010) using both primary and secondary data found that women empowerment aims at enabling them to realize their identities, potentiality and power in all spheres of their lives. The real empowerment of women is possible if they easily access to the economic resources, more significant participation in the power structure of society and decision making process with family and in the society.

Ebirim (2000) focused on empowering the rural women through Adult Education for Development. The author had a critical look at the situation of the women in general and the rural women particularly in Nigeria as a reference position. According to author Nigerian women, particularly in rural areas, were wallowing in ignorance, hopeless poverty, total illiteracy, political bankruptcy and disempowerment. Using qualitative method of investigation and open ended questionnaire and focused group discussions in the selected area of study, author concluded that women in Nigeria were not allowed to
participate in the political process. It showed disempowerment of women in Nigeria.

Parveen and Leonhäuser (2004) investigated the nature and extent of rural women’s empowerment and factors affecting it in Bangladesh. The study identified a strategic framework for improving the existing empowerment levels of rural women. The study used both quantitative and qualitative methods of investigation and data was collected from the three villages of Mymensingh district. Empowerment indicators like contribution to household income, access to resources, ownership of assets, participation in household decision making, perception on gender awareness and coping capacity to household shocks were chosen for analysis. For the purpose of estimation, a cumulative empowerment index (CEI) was developed by adding the obtained scores of above mentioned six empowerment indicators. The study concluded that exposure to information media, education and training were the key variables to improve women empowerment in rural areas.

Chaudhry and Nosheen (2009) conducted a study on the determinants of women empowerment in Southern Punjab. For this study two tehsils of district Dera Ghazi Khan were randomly chosen, i.e. D. G. Khan Tehsil and the Tribal Area Tehsil. A sample of two hundred women was chosen for survey using stratified random sampling technique. Results of the study showed that women having bank account, having access to media, participate in excursion activities, having Islamic viewpoint, age of women, married women and women were statistically significant variables contributing positive impact towards women empowerment in the rural area as well as in urban area. The study results also indicated better situation of women empowerment in urban areas as compared to rural and tribal areas because in urban areas women had easy access to job opportunities, education, health and media, along with higher levels of education of household and the most important better knowledge of Islamic teachings and its practice.

AKRSP Socioeconomic Assessment Survey (2007) investigated the impact of micro-credit programme on women development in Gilgit-Baltistan. According to survey results, women income has increased in the programme areas of Gilgit-Baltistan. They
have easy access to savings and credit services. Moreover, women now enjoy increased mobility in the social sphere of life. Women’s influence on household income and decision making has improved. However, AKRSP’s survey based study is limited in scope. The study has been carried out by the mother institution itself. The study also did not use any statistical or econometric model for the purpose of estimation. Thus, our study is broad in concept as it covers both qualitative and quantitative aspects of impact assessment by considering various socioeconomic indicators to measure the program impact on the household living standard. Our study also includes appropriate statistical and econometric models to make the results more reliable.

3. Research Methodology

To avoid selection bias and to make our research results more appropriate and reliable we have used score matching technique in order to make treatment and control group similar in all aspects except for treatment (i.e providing loan to treatment group only). The control household samples have been chosen in such a way that they are in close geographic proximity to the beneficiary household samples and have had similar socio-economic status before the VGFS introduction. For this purpose National Poverty Scorecard of Pakistan identified by Word Bank has been used to identify the matched households2.

In order to get representative sample, we have used multi-stage disproportionate stratified random sampling technique for this study. Since District Gilgit is already stratified geographically in the form of well known villages (strata) and for each village (stratum) well defined boundaries are there, therefore the study rely on existing stratification instead of making new stratification. In the first stage, sampling frame for the beneficiary households of Village Group Financial Services for the year 2007 in district Gilgit has been collected from the First Micro Finance Bank Gilgit Branch. The sampling frame included a village (stratum) wise list of beneficiary households. At the second stage five villages (Karga, Nala, Basin, Nomal, Oshikhandas)

2 Poverty score card is technique used in impact assessment evaluation for matching controlled and treatment groups efficiently in such a way that both the groups have similar socio economic condition at the time of project initiation.
have been chosen randomly from the sampling frame. The sampling frame for these five villages were consist 498 beneficiary households of VGFS (79 households from village Basin, 54 households from Karga, 123 households from Danyore, 134 households from Nomal and 108 households from Oshikhand Das. At the third stage samples from each village (stratum) have been selected through disproportionate stratified random sampling technique keeping in view that the selected samples from each stratum will represent the population. We selected Twenty percent (a total of 100) of the total beneficiary population as samples (16 from basin, 11 from Karga, 24 from Danyore, 27 from Nomal and 22 from Oshikhandas. Similarly, equal numbers of samples from the five villages have been chosen for the control group following the score card of treatment group.

Model Specification

The major objective of this research study is to explore the impact of Village Group financial services on the households' income, expenditure and net worth in five remote villages of district Gilgit (Karganala, Basin, Danyore, Nomal and Oshikhandas). Since we do not have base line data for VGFS beneficiaries, therefore we have used Mean Difference Model of impact evaluation for our study as under:

To test whether the difference in means between treatment and control groups is statistically significant or not, we use t-test. As our samples are independent we use following formula to compute t-statistics:

\[
    t = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{s_x^2}{n_x} + \frac{s_y^2}{n_y}}}
\]

Where $\bar{x}$ is mean of treatment group, $\bar{y}$ is mean of control group, $s_x^2$ is population variance of treatment group, $s_y^2$ is population variance of control group, $n_x$ is sample size of treatment group, $n_y$ is sample size of control group.

When population variances are unknown and assumed to be equal then we use their sample variances $s_x^2$ and $s_y^2$ to compute a pooled variance estimator $(\frac{s_x^2 + s_y^2}{2})$ as
and then use following formula to compute t-statistics

\[ t = \frac{\bar{x} - \bar{y}}{s_p} \]

However, if population variances are unknown and not equal, then following modifications are required in computation of t-test, variances and the degrees of freedom as:

\[ t = \frac{\bar{x} - \bar{y}}{\sqrt{s_X^2/n_x + s_Y^2/n_y}} \]

With degree of freedom

\[ n_x - 1 + n_y - 1 \]

To test whether variances are equal or not we use F-test as:

\[ F = \frac{s_X^2}{df} \]

If F computed is greater than F critical we reject the null of equal variances and conclude that variances of treatment and control groups are not equal.

4. Empirical Results

How far the funds of VGFS are reaching to the poor? In order to answer this question we first analyzed the poverty scorecard of treatment group. Results showed that out of a total of 100 households of treatment group 54 household were living under absolute poverty line. Thus, most of the beneficiaries were poor. However, 46 household of the beneficiaries were non-poor.

4.1 Distribution of VGFS Loans among Various Uses by Treatment Group

Following table shows the distribution of VGFS loans among the treatment group:

\[ \text{Based on poverty scorecard, all households which scored less than 24 score points, were considered as poor.} \]
Impact of Village Group Financial Services

Table 4.1: Distribution of Loan among Various Uses by Treatment Group (PKR)

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Crops</th>
<th>Livestock</th>
<th>Business</th>
<th>Housing</th>
<th>Consumption</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group</td>
<td>451000</td>
<td>1115000</td>
<td>3499205</td>
<td>663000</td>
<td>492000</td>
<td>988000</td>
<td>7208205</td>
</tr>
<tr>
<td>%</td>
<td>6.26%</td>
<td>15.47%</td>
<td>48.54%</td>
<td>9.20%</td>
<td>6.83%</td>
<td>14%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The total amount of loan disbursed among treatment group was RKR 7208205. From the total amount of treatment loan 6.26% goes to crops sector, 15.15% to livestock, and 48.54% to business, 9.20% to housing, 6.83 to consumption and 14% to other uses. It is evident that most of VGFS loans have been used for productive purposes and the share of loans used for consumption purposes is very small, i.e. 6.83%.

4.2 Impact of VGFS on Income

Income is the base to check the success or failure of any program in a particular area. The following table shows the results of VGFS on income in the program area:

Tab. 4.2: Distribution of Income among Control and Treatment Groups (PKR)

<table>
<thead>
<tr>
<th>Income per Household</th>
<th>Income per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group (T)</td>
<td>186874</td>
</tr>
<tr>
<td>Control Group (C)</td>
<td>166301</td>
</tr>
<tr>
<td>All Households</td>
<td>176587</td>
</tr>
<tr>
<td>Difference (T-C) PKR</td>
<td>20573</td>
</tr>
<tr>
<td>Difference (T-C) %</td>
<td>12.37</td>
</tr>
</tbody>
</table>

Other uses include machinery, social functions, health care, education, repayment of loans, etc.
The average household income per year for treatment and control groups is PKR 186,874 and PKR 166,301, respectively. The difference between treatment and control group’s income in this case is 12.37%. The average per capita income per year for the sample households in treatment and control group is PKR 28,186 and PKR 24,277, respectively. The per-capita income of treatment households is higher than the control household’s by 16.10%. The reason for higher difference between the absolute and per capita income of treatment and control group is that the household size of treatment group is smaller than the control group. Households derive their income from multiple sources like crops, livestock, business, services, labor, pension, rental income, remittances, etc. About 88% of household’s income comes from the four major sources i.e. crops, livestock, business and services.

Tab. 4.3: Share of Income among Control and Treatment Groups (%)

<table>
<thead>
<tr>
<th>Households</th>
<th>Crops</th>
<th>Livestock</th>
<th>Business</th>
<th>Services</th>
<th>Labor</th>
<th>Others</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>11.71</td>
<td>6.46</td>
<td>11.97</td>
<td>58.28</td>
<td>3.68</td>
<td>7.90</td>
<td>100</td>
</tr>
<tr>
<td>Control</td>
<td>12.46</td>
<td>4.18</td>
<td>5.83</td>
<td>33.43</td>
<td>24.45</td>
<td>19.65</td>
<td>100</td>
</tr>
<tr>
<td>All Households</td>
<td>12.06</td>
<td>5.39</td>
<td>9.08</td>
<td>46.58</td>
<td>13.46</td>
<td>13.43</td>
<td>100</td>
</tr>
</tbody>
</table>

12.06% of the total household’s income comes from crops and 5.39% of the household’s income is contributed by livestock. Services sector is the most important sector that contributes 46.58% of the total household income. Business sector’s share in total income is 9.08%, followed by labor (13.46%) and others (13.43%). One important finding of this investigation is that the share of business income in treatment group is more than double as compare to control group. Similarly, the income of treatment group is higher than control group in livestock sector. It clearly indicates that village group financial services have some positive impact on the income of treatment group because 64% of VGFS loans are given to business and livestock sectors. The income of treatment group also significantly increased in service sector. Higher share of treatment group than control group in service sector may be attributed to relatively higher level of schooling.

5 Total household size of treatment and control groups consist 663 and 685 members respectively.
of the former than the later. On the other side the major sectors that contribute to control household income include services sector (33.43%), followed by labor (24.45) and crops (12.46), respectively. The treatment household’s income is greater than the control household’s income in all sectors except crops and labor sectors where control group income exceeds than the treatment group income.

4.3 Impact of VGFS on Expenditure

Household expenditure is also a key determinant of economic wellbeing. Various studies in Pakistan have used expenditure to measure wellbeing. Our survey also includes the expenditure component to estimate the impact of VGFS on program area. Following table shows some expenditure results from the data that we have collected from the field survey:

Tab.4.4: Distribution of Expenditures among Control and Treatment Groups (PKR)

<table>
<thead>
<tr>
<th></th>
<th>Expenditure per Household</th>
<th>Expenditure per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group (T)</td>
<td>107342</td>
<td>16190</td>
</tr>
<tr>
<td>Control Group (C)</td>
<td>99026</td>
<td>14456</td>
</tr>
<tr>
<td>All Households</td>
<td>103184</td>
<td>15309</td>
</tr>
<tr>
<td>Difference (T-C) PKR</td>
<td>8316</td>
<td>1734</td>
</tr>
<tr>
<td>Difference (T-C) %</td>
<td>8.40</td>
<td>12.00</td>
</tr>
</tbody>
</table>

The average household expenditure per year for treatment and control groups is RKR 107342 and PKR 99026, respectively. The difference between treatment and control group’s expenditure in this case is 8.4%. The average per capita expenditure per year for the sample households in treatment and control group is PKR 16190 and PKR 14456, respectively. The per capita expenditure of treatment households is higher than the control household’s by 12.0%. Thus, income and expenditure patterns of treatment group are higher than the control group reflecting high level of income and expenditure of treatment group and they can be attributed to the intervention of VGFS in the program area. The distribution of household expenditure among treatment and control groups is given as under:
Tab. 4.5: Per Capita Yearly Expenditure among Treatment and Control Groups (%)

<table>
<thead>
<tr>
<th>Households</th>
<th>Food</th>
<th>Clothing</th>
<th>Housing</th>
<th>Health</th>
<th>Education</th>
<th>Transport</th>
<th>Others</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>39.79</td>
<td>7.97</td>
<td>10.21</td>
<td>6.84</td>
<td>15.9c</td>
<td>4.1c</td>
<td>15.07</td>
<td>100</td>
</tr>
<tr>
<td>Control</td>
<td>36.94</td>
<td>7.61</td>
<td>16.79</td>
<td>6.63</td>
<td>14.0c</td>
<td>2.7c</td>
<td>15.25</td>
<td>100</td>
</tr>
<tr>
<td>All HHS</td>
<td>37.11</td>
<td>8.07</td>
<td>19.59</td>
<td>6.84</td>
<td>13.6c</td>
<td>2.2c</td>
<td>12.52</td>
<td>100</td>
</tr>
</tbody>
</table>
The average yearly per capita expenditure for food items in treatment group is 39.79% of the total treatment expenditure followed by clothing 7.97%, housing 10.21%, health 6.84%, education 15.92%, transport 4.19% and others 15.07%. Similarly, in control group this ratio of expenditure is 36.94% for food items, 7.61% for clothing, 16.97% for housing, 6.63% for healthcare, 14.09% for education, 2.70% for transport and 15.25% for other needs. The inter-group analysis shows that almost in all categories except housing sector treatment group expenditures are higher than control group expenditures. Transport expenditure of treatment group is double than the control group because majority of treatment group households are engaged in business and services. Moreover, higher expenditures of control group for food, clothing, health and education indicate more improvement of human capital in this category.

4.4 Impact of VGFS on Net-Worth

Following table shows the asset and net-worth holdings of treatment and control group on household basis:

<table>
<thead>
<tr>
<th></th>
<th>Asset</th>
<th>Debt</th>
<th>Net-Worth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group (T)</td>
<td>1234777</td>
<td>11925</td>
<td>1222852</td>
</tr>
<tr>
<td>Control Group (C)</td>
<td>1229995</td>
<td>6615</td>
<td>1223380</td>
</tr>
<tr>
<td>All Households</td>
<td>1232386</td>
<td>9270</td>
<td>1223116</td>
</tr>
<tr>
<td>Difference (T-C) PKR</td>
<td>4783</td>
<td>5310</td>
<td>-527</td>
</tr>
<tr>
<td>Difference (T-C) %</td>
<td>0.39</td>
<td>80.27</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

The mean value of asset holding for all households is PKR 1232386. The mean value of treatment group asset holding is PKR 1234777 while this value for control group is PKR 1229995. Average value of debt for all households is PKR 9270. Average value of debt for treatment group is PKR11925 while that of control group is PKR6615. Average value of net-worth for all households is PKR 1223116. Mean value of treatment group net worth is less than the...

*Other expenditures include remittances, pension, fuel and firewood expenses, cash gifts expenditures on social functions, etc.
control group value because treatment group bears higher amount of debt in the form of VGFS loans which they have to repay in near future. The deduction of debt value from the asset value decreases the asset’s net-worth of treatment group indicating higher net-worth of control group as compared to treatment group.

The per capita distribution of assets, debt and net-worth among treatment and control groups are given as under:

**Tab.4.7: Per Capita Assets, Debt and Net-Worth in Treatment and Control Groups**

<table>
<thead>
<tr>
<th></th>
<th>Asset</th>
<th>Debt</th>
<th>Net-Worth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment Group (T)</strong></td>
<td>186241</td>
<td>1799</td>
<td>184442</td>
</tr>
<tr>
<td><strong>Control Group (C)</strong></td>
<td>179561</td>
<td>966</td>
<td>178596</td>
</tr>
<tr>
<td><strong>All Households</strong></td>
<td>182847</td>
<td>1375</td>
<td>181471</td>
</tr>
<tr>
<td><strong>Difference (T-C) PKR</strong></td>
<td>6680</td>
<td>833</td>
<td>5847</td>
</tr>
<tr>
<td><strong>Difference (T-C) %</strong></td>
<td>3.72</td>
<td>86.25</td>
<td>3.27</td>
</tr>
</tbody>
</table>

The above table shows the per capita distribution of assets, debt and net-worth among treatment and control groups. If we distribute assets and debt value on per capita basis among treatment and control groups then the difference in net-worth value (T-C) becomes positive indicating that net worth of treatment group is higher than the control group. The reason why the difference in net-worth value (T-C) becomes positive is that the treatment group household size is smaller than the size of control group.

4.5 Impact of VGFS on Saving

Following table shows the distribution of saving among control and treatment groups:
Tab. 4.8: Saving Trends in Control and Treatment Groups (PKR)

<table>
<thead>
<tr>
<th></th>
<th>Saving per Household</th>
<th>Saving per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group (T)</td>
<td>71238</td>
<td>10744</td>
</tr>
<tr>
<td>Control Group (C)</td>
<td>66465</td>
<td>9703</td>
</tr>
<tr>
<td>All Households</td>
<td>68852</td>
<td>10215</td>
</tr>
<tr>
<td>Difference (T-C) PKR</td>
<td>4772</td>
<td>1041</td>
</tr>
<tr>
<td>Difference (T-C) %</td>
<td>7.18</td>
<td>10.73</td>
</tr>
</tbody>
</table>

From the above table it is evident that saving (per capita and per household) of treatment group has increased more than the saving of control group in the study area. The per capita saving of treatment group is 10.73% higher than the control group, while at household level this difference in saving is 7.1%.

To test whether the mean differences in income, expenditure, net-worth and saving of control and treatment groups at per capita levels, are statistically significant or not, we use t-test. Results of both the F test and t test are summarized below in table 4.9:

Tab.4.9 Independent Sample Test Results (Living Standard)

<table>
<thead>
<tr>
<th></th>
<th>F-Test(P-Value)</th>
<th>t-Test(P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Capita Income</td>
<td>13.749 (0.000)*</td>
<td>2.702 (0.007)*</td>
</tr>
<tr>
<td>Per-Capita Expenditure</td>
<td>0.242 (0.623)</td>
<td>1.715 (0.088)**</td>
</tr>
<tr>
<td>Per-Capita Net-Worth</td>
<td>2.77 (0.097)**</td>
<td>1.064 (0.289)</td>
</tr>
<tr>
<td>Per-Capita Saving</td>
<td>(3.231) (0.074)**</td>
<td>(1.636) (0.10)**</td>
</tr>
</tbody>
</table>

*Significant at 1% **Significant at 5% ***Significant at 10%

On the basis of F-test results we reject the null of equal variances in case of per-capita income, per capita net worth and per capita saving while in case of per capita expenditure we do not reject the null of equal variances. Therefore, we use t-test given by equation 4 for testing the difference between two means for per capita income, per capita net worth and per capita saving, while in case of per capita...
expenditure we use t-test given by equation 3. The results of t-test show that the difference between means of treatment and control group for per capita income, per capita expenditure and per capita saving are statistically significant while that of per capita net-worth is statistically insignificant.

Following the above test results we conclude that VGFS has significantly contributed towards treatment income, expenditure and saving on per capita basis. Mean difference between per capita net worth of treatment and control group is statistically insignificant. The reason for this insignificance is probably due to the loan repayment liability of treatment group to VGFS. Another reason may be that impacts on income may appear in shorter period of time while accumulation of household assets can take longer period of time, usually more than five years to show any significant impact after program intervention.

4.6 Impact of VGFS on Rural Poverty

We can also analyze the impact of VGFS on rural poverty following the income data collected from the survey. For this we can use the concept of poverty line income and poverty headcount ratio (HCR) widely used in Pakistan in social impact assessment studies. The results of poverty headcount ratio in both control and treatment households from the survey are given in the following table:

---

7 Difference in the means of per capita income of treatment and control groups is highly significant, while that of per capita expenditure and per capita saving are significant at 10% only.

8 Poverty line income is drawn at a level of per capita income considered necessary to provide a minimum standard of living. In Pakistan the poverty line income is PKR 1505 per capita per month for the year 2010 based on PSLM 2007. (Socio-Economic Baseline Survey of Kashmore district (2010): Rural Support Program Network (RSPN) Islamabad, Pakistan)
Tab. 4.16: Poverty Headcount Ratio for Treatment and Control Groups (%)

<table>
<thead>
<tr>
<th>Group</th>
<th>Poverty Rate (HCR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group</td>
<td>24</td>
</tr>
<tr>
<td>Control Group</td>
<td>32</td>
</tr>
<tr>
<td>All Households (HH)</td>
<td>28</td>
</tr>
</tbody>
</table>

The Poverty Headcount Ratio indicates that out of total 100 household in treatment group only 24 household live below the poverty line income i.e. PKR 1505 per capita per month, while this rate is higher in controlled group i.e. 32 household. Here, we may assume that the lower level of absolute poverty in treatment group may probably be attributed to the VGFS intervention.

5. Conclusions and Recommendations

FMFB is one of the leading microfinance banks in the country providing credit services to the poor with the aim of reducing vicious circle of poverty in the rural areas of Pakistan. This study is an attempt to investigate the impact of Village Group Financial Services provided by FMFB on income, expenditure, net-worth in Gilgit. For this purpose we collected primary data of 200 respondents from the five remote villages of district Gilgit using disproportionate stratified random sampling technique with well structured and pre-tested questionnaire. The data collected were analyzed through SPSS using mean difference model of impact evaluation.

Empirical results of this study suggest that microfinance, particularly the Village Group Financial Services, provided by the First Micro-Finance Bank, is an effective tool in improving income, expenditure and saving of poor rural women in the study area. However, no significant mean difference was found between control and treatment households in the net-worth portion of impact evaluation. Net-worth may be insignificant because most of our respondents are in the process of repayment of loan. They have to pay the loan back taken from FMFB in the form of VGFS. The amount of debt reduces the value of net-worth because net-worth is the difference between assets and liabilities and the debt is a part of
liability. In summary we conclude that FMFB is playing an important role in the improvement of rural livelihood in the mountainous and rural region of Pakistan i.e. Gilgit-Baltistan.

Keeping in view the positive impact of VGFS on the living standard of households in Gilgit, it is suggested that FMFB should extend its credit services (outreach) to other remote areas of Gilgit-Baltistan. On the basis of in-depth interviews it is also suggested that to extend its outreach, FMFB has to reduce the minimum limit to form a group from 15 members to five members or give individual loans so that maximum people in the society will be benefited from its financial services. Most of the borrowers of FMFB claim that the amount of loan provided is not enough to meet their working capital requirements. Therefore, the FMFB, in the opinion of their clients, should double the maximum limit of loan i.e. 150000 to 300000 PKR. Although the vast majority of funds provided by FMFB are used for productive purposes, still there is a need of proper monitoring of funds in order to achieve more significant results. Most of our study respondents claimed that the interest rate charged by FMFB on borrowed funds in the case of VGFS is too high (i.e. 24%). Therefore, it is suggested that FMFB should cut down the rate of interest on borrowed funds in order to attain more significant results and higher market share in the form of outreach. Moreover, instead of using flat interest rate on borrowed funds, FMFB may consider to adopt diminishing method for charging interest rate on borrowed funds to reduce the burden of repayment on their clients.

The results of this study also indicate that the FMFB, along with the loan appraisal process, should make supplementary market research to bridge the information gap so that the borrowed funds can be used by the borrowers in the production and supply of most demanded products. Moreover, additional interventions (like creating awareness about the role of microfinance, increasing supply chain through other institutions of microfinance, improving infrastructure, etc.) are required to make significant impact on reducing poverty and improving living standard in Gilgit and other similar regions in Pakistan.
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<table>
<thead>
<tr>
<th>Research</th>
<th>Impact of Village Group Financial Services</th>
</tr>
</thead>
</table>


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A FRAMEWORK OF SOCIAL SUPPORT WITH MEDIATION IMPACT ON ORGANIZATIONAL OUTCOME

Rabia Mushtaq
Faculty of Management Sciences,
International Islamic University,
Islamabad, Pakistan.

&

Muhammad Bashir Khan
Faculty of Management Sciences
International Islamic University,
Islamabad, Pakistan.

Abstract
Social support influences the employees’ efficiency. According to the job demand-resource model social support cuts the chances of negative impact of organizational job demand. This model also supports that social support aspects increase the job engagement of employees. Drawing on support from job demand-resource model, a relationship of social support with engagement and commitment was developed. Using field data (N = 300) from a variety of organizations, 220 paired usable responses were received back resulting in an impressive response rate of approximately 73%. The relationship between social support and outcome was measured. The mediating role of job engagement in the social support-outcome relationships was tested. Three hypotheses were developed and confirmed. Both social support and job engagement were related to organizational commitment and job engagement was mediating the social support-outcome relationship.

Keywords: Social support, Job engagement, Commitment.

JEL Classification: Z000

PAKISTAN BUSINESS REVIEW APRIL 2013
Introduction:

Employees’ efficiency is heavily influenced by social support (Rhoades & Eisenberger, 2002; Spreitzer, et al., 2005). Their perception regarding social support varies. They get different level of social support from their respective organizations (Glazer, 2006). This model also supports that social support aspects amplify the job engagement of employees (Bakker & Demerouti, 2007).

Social support is a multidimensional construct (Beehr & Glazer, 2001). Generally, it refers to people sense of kindness, respectfulness and caring attitude towards one another (Beehr & Glazer, 2001; Kirmeyer & Lin, 1987). There are two major categories of social support including structural and functional forms of social support (Cohen & Wills, 1985). Structural support is related with the support of families, organizations, social and religious groups (Beehr & Glazer, 2001; Glazer, 2006). Structural support explains the other people supporting behavior (Beehr & Glazer, 2001). In a similar vein, organization’s structural support refers to moral support for employees from coworkers and supervisors. In contrast, functional support is practical support in which individuals get from their networks (Beehr & Glazer, 2001). These social networks of the people strengthen ties among themselves. Functional support looks at the specific functions that members in social network can provide, such as emotional, instrumental, informational and companionship support. Whereas emotional support refers to empathy, concern, affection, love, trust, acceptance, intimacy, encouragement or care; similarly, instrumental support refers to concrete, direct ways people assist others. Informational support refers to advice, guidance, suggestions, or useful information attained from someone whereas companionship support refers to the type of support that gives someone a sense of social belonging.

Organizations positive feedback is the main source for the alignment of employees’ attitude and behavior. Employees show positive engagement and commitment towards their organization.
The purpose of the present study was twofold. First, it was aimed to examine the direct relationship between social support and organizational commitment. Second, it focused to explore intervening mechanisms whereas work engagement was taken as mediator. The study found social support positive.

**Literature Review**

**Commitment.** Organizational commitment refers to the attachment that employees have with organization (Ketchand & Strawser, 2001). Meyer and Allen (1991) gave a three-component model of organizational commitment which was based on side-bet theory. In organizational commitment model psychological attitudes of employees are expressed that influence on employees to attach with organization and include a desire (affective commitment), an obligation (normative commitment), and a need (continuance commitment). Studies have examined only the affective component of organizational commitment (Ambrose, Arnaud & Schminke, 2008), or all the three components as well as the total organizational commitment (McConnell, 2006). Affective commitment component of organizational commitment is taken in this study because it is related with psychology. Other component are more strongly related with cognition.

Affective commitment is referred to as an emotional attachment to an organization (Mowday, 1998). Commitment is considered as one feature of engagement (Macey & Schneider, 2008). As employees are more engaged in their work (Maslach, et al, 2001), their affective attachment is also enhanced which is directly relevant with their affective commitment (Brooke, et al, 1988). It has been identified that job characteristics are main measures of engagement
Social Support. Social support is related with an informal social network of people who unite and show all types of affirmative concern to each other (Etzion, 1984). Similarly, workplace social support gives emphasis on problem solving, sharing information, and giving feedback to employees. These are basically sources of social support (Johnson & Hall, 1988).

Social support is linked with different theories like organizational support theory, social exchange theory and job demand resource model.

Social support is supported by organizational support theory and social exchange theory (Blau, 1964; Emerson, 1976; Homans, 1958; Kelley & Thibaut, 1978). These theories address the issues of social support of employees from the organization. When employees attain favorable treatment from the organization, they reciprocate in the same mode. They show same level of care for organization as organization shows to them (Eisenberger, et al, 1986). Organization favorable treatment catalyzes the employees’ feelings in positive way. When employees feel that organizations value their efforts, they are more motivated for achieving organization goals and showing commitment and engagement towards organization (ibid). Recent researches have shown that supportive supervisors give main contribution of organizational support (Eisenberger, et al, 2002). So supervisor’s support is the main factor in organizational support. Thus, the level of support from a supervisor influences employees’ perceptions of the organization as a whole because employees perform as an agent of the organization. They give feedback to employees and act as main hub for collecting and disseminating the information (Eisenberger, et al, 1997; Eisenberger et al., 2002). Social exchange theory also confirms this concept that employees will reciprocate in the same way as they
are treated in organizations (Cropanzano et al, 2003). When the organization does not engage in proper social exchange, employees feel less responsible to engage in productive behaviors to help the organization.

Therefore, social support is likely to enhance employees’ morale for a greater engagement in the work. This is consistent with the notion that social support provides a buffer against high job-related demands of organization from employees (Karasek & Theorell, 1990). From above given facts it can be hypothesized that:

**Hypothesis 1:** Social support will be positively related to organizational commitment.

**Hypothesis 2:** Social support will be positively related to job engagement.

**Job engagement as a mediator.** Engagement is referred as the willingness of employees to dedicate physical, cognitive, and emotional resources at work (Kahn, 1990). Fully engaged employees in any job do their task with full commitment, dedication and passion (Kahn, 1990; Macey & Schneider, 2008; Rich et al, 2010). Moreover, it has been also suggested that engagement is a motivational variable which appears in the form of positive attitudinal and behavioral outcomes (Rich et al., 2010). The relationships among potential antecedents and consequences of engagement are not explored in depth though (Macey & Schneider, 2008).

Job demand resource theoretical framework addresses the issue of job demands and resources. It is determined that high job demands lead to high level disengagement from the work. Job resources, such as social support, do not only reduce disengagement and depersonalization but also increase job engagement (Bakker & Demerouti, 2007). When the employees are getting social support in the form of supervisory support, they invest more efforts toward accomplishment of organization goals that show their high engagement level and commitment (ibid).
Therefore, engagement is related with mental state that is relatively enduring but may fluctuate (Schaufeli et al., 2002). However, engagement level varies due to different organizational contextual and relational factors and that fluctuation also changes the employees’ commitment level. As from above given discussion clear direct link of engagement with antecedents and consequences have been established. In the present study mediating relationship of engagement with social support and organizational commitment is established. Thus, it is hypothesized that:

*Hypothesis 3:* Job engagement will mediate the relationship of social support with organizational commitment.

**Proposed Model**

*Social Support* → *Job Engagement* → *Organizational Commitment*

**Method**

**Data Collection and Sample**

Data was collected through onsite administration of a survey to employees working in educational and banking sector. Self-reported measures were used for collection of data. The cover letter on the questionnaires stated the purpose and scope of the study and assured the respondent about confidentiality of the responses.

Of the total of 300 surveys distributed among the employees of different organizations, 220 paired usable responses were received resulting in an impressive response rate of approximately 73%. The
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respondents had the mean age of 32 years ($SD = 7.78$) in which 53% were females. Education level ranged from high school to masters degree.

Measures

English is the official language of correspondence in employment and education in Pakistan. Thus, in the given sampling frame, the questionnaires were administered in English. All the measures were obtained through the self-report questionnaires.

Social Support. Social support has various dimensions and in the present study one dimension was taken which is supervisory support. For measuring social support of supervisor, the measure of Greenhaus, Parasuraman and Wormley (1990) was used which consisted of nine-items. Greenhaus et al. (1990) reported alpha reliability of the scale .93. This is a five-point likert scale in which 1 refers to “strongly disagree” while 5 to “strongly agree”. The reliability for social support in this study was .82.

Organizational Commitment. In organizational commitment, affective commitment dimension was measured. Meyer and Allen’s (1997) eight-item scale was for measurement of effective commitment. Recorded alpha values for affective commitment ranged from .77 to .88 (Meyer & Allen, 1997; Meyer, et al, 1998). The reliability for social support in this study was .98.

Work engagement. Schaufeli and Bakker’s (2003) nine-item scale was used for measurement. The original UWES (UWES-17) includes 17 items. The UWES-17 has psychometric features. In addition to the UWES-17, a shortened version of nine items (theUWES-9) with three scales of three items each shows similar encouraging psychometric features. Recorded alpha values for work engagement ranged from .76 to .91 (Schaufeli & Bakker, 2003; Shimazu et al, 2010). The reliability for social support in this study was reported .92.

Control variables. One-way ANOVA revealed that there were significant differences in organizations and gender in reported work
engagement and organizational commitment. Therefore, gender and organizations were controlled by using dummy variables in analyses.

Results

Table 1 presents the descriptive statistics and correlations among the existing variables. All correlations above .10 were significant at $p < .05$. There were no unexpected results.

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>0.45</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>2.1</td>
<td>1.2</td>
<td>1.4*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Education</td>
<td>3.1</td>
<td>.49</td>
<td>.33**</td>
<td>.42*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Organization</td>
<td>2.6</td>
<td>.35</td>
<td>.21*</td>
<td>.35*</td>
<td>.44*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social Support</td>
<td>1.54</td>
<td>.98</td>
<td>.54**</td>
<td>.41**</td>
<td>.23*</td>
<td>.45**</td>
<td>(.82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. OC</td>
<td>1.28</td>
<td>1.54</td>
<td>.21*</td>
<td>.34**</td>
<td>.45*</td>
<td>.65*</td>
<td>.43**</td>
<td>(.98)</td>
<td></td>
</tr>
<tr>
<td>7. Job engagement</td>
<td>2.1</td>
<td>.95</td>
<td>.45**</td>
<td>.43**</td>
<td>.21**</td>
<td>.41**</td>
<td>.21*</td>
<td>.30**</td>
<td>(.92)</td>
</tr>
</tbody>
</table>

$N = 220$; All correlations above .10 are significant at $p < .05$; alpha reliabilities are given in parenthesis **$p<0.01$ and *$p<0.05$ N=220; for gender 0 = “Female” and 1 = “Male.” OC “Organizational Commitment”

The results of regression analyses for main effects of social support on outcomes including job engagement are given in Tables 2, which shows that social support ($\beta = .46^*, p < .05$) is significantly related with job engagement. Thus providing support to H2. Table 2 also shows that effect of social support ($\beta = .34^{**}, p < .01$) on organizational commitment was positive, thus H1 was confirmed.
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Table 2: Results of Regression Analyses for Main Effects

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Job engagement</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>ΔR²</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls</td>
<td>.24**</td>
<td>.15*</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social support</td>
<td>.46*</td>
<td>.38**</td>
</tr>
</tbody>
</table>

N = 220; Control variables include gender and organization.

* p < .05
** p < .01
*** p < .001

According to Baron and Kenny (1986), mediation is confirmed when the effects of the independent variable become non-significant with beta reducing close to zero in case of controlling for the effects of the mediator. Table 3 shows that controlling for the effects of job engagement and supervisor support (β = .04†, p < .10) was non significant, supporting full mediation. Hence, these results prove the hypothesis H 3.

Table 3: Results of Mediated Regression Analyses

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls</td>
<td>.24**</td>
<td>.15*</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work engagement</td>
<td>.63**</td>
<td>.06*</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor support</td>
<td>.04†</td>
<td>.00</td>
</tr>
</tbody>
</table>

N = 220; Control variables include gender and organization.

†p < .10.
* p < .05
** p < .01
*** p < .001
Discussion

For the success of any contemporary organization, social support from the supervisor is a key. In the present study, a model was tested in which work engagement was chosen as a mediator between independent constructs such as social support and dependent construct which was commitment. We tested these relationships in a new cultural setting using a sample from a variety of organizations and found fairly good support for our hypotheses.

Social support from supervisor was related to outcome in expected directions. Both social support from supervisor and work engagement were related to outcomes in expected directions. Similarly, social support from supervisor was related to work engagement. In any case, results highlight that social support from supervisor has a capacity to enhance work engagement, which is important for organization’s positive outcomes, as it leads to positive results including employees’ affective commitment level.

A main aspect of this study was to test the social support – work engagement – outcome mediated model. Results indicate that work engagement fully mediates the relationship of social support with affective commitment, which are two very important outcomes for organizations. This finding supports the assertion that social support translates into affective commitment of employees via work engagement.

Conclusion

A majority of present researches in the area of social support have examined the relationship between social support and particular outcomes. In this study, a framework was empirically examined which includes social support from supervisors as influencing factors for enhancing employee’s work engagement and commitment.

Managerial Implications

Managers should pay special attention to the relational issues beyond the resolution of the management employees’ conflict. It is evident for managers or supervisors that good relations with
employees show high organizational commitment. These relationships enhance employee’s work engagement level and their commitment level.

**Limitations of the study**

The data set has limited external validity because the data collected from Pakistani participants who were not from research oriented cultures (Butt & Choi, 2006). Self-report data in cross-sectional settings leads to same-method variance (Podsakoff et al., 2003) and some relationships may be inflated. However, self-report was not a serious threat because these problems would have reduced the possibility of detecting significant interactions.

**Future Research Directions**

Firstly, future researches can focus on developing more elaborate models similar to the one examined in the present study that refines our understanding of relational perspectives in organizations and their consequences at workplace. For example, structural and functional support aspects effectiveness can be checked at workplace. Secondly, cross-cultural research should be encouraged in this domain. Such inquiries may help us understand the role of regional culture and economic and market conditions in enhancing or buffering the congenial effects of social support at workplace. Thirdly, the study will help in raising the issue of relational aspects in the context of developing countries. In the last two decades, the role of global and local factors in management literature has been enhancing (Ralston, 2008). In this context, it is important to analyze the universality of theories which are being developed in the United States.
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Reference


## Appendix

### Commitment Scale

<table>
<thead>
<tr>
<th>Serial #</th>
<th>Scale</th>
<th>Very Little</th>
<th>Moderate</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1)</td>
<td>I would be very happy to spend the rest of my career with this organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2)</td>
<td>I enjoy discussing my organization with people outside of it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3)</td>
<td>I really feel as if this organization’s problems are my own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4)</td>
<td>I think that I could easily become attached to another organization as I am to this one.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5)</td>
<td>I do not feel like “part of the family” at my organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6)</td>
<td>I do not feel “emotionally attached” to this organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7)</td>
<td>This organization has a great deal of personal meaning for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8)</td>
<td>I don’t feel a strong sense of belonging to my organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### Social Support Scale

<table>
<thead>
<tr>
<th>Serial #</th>
<th>Scale</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral/Indifferent</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My supervisor takes the time to learn about my career goals and aspirations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>My supervisor cares about whether or not I achieve my goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>My supervisor keeps me informed about different career opportunities for me in the organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>My supervisor makes sure I get the credit when I accomplish something substantial on the job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>My supervisor gives me helpful feedback about my performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>My supervisor gives me helpful advice about improving my performance when I need it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>My supervisor supports my attempts to acquire additional training or education to further my career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>My supervisor provides assignments that give me the opportunity to develop and strengthen new skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>My supervisor assigns me special projects that increase my visibility in the organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
## Work Engagement Scale

<table>
<thead>
<tr>
<th>Serial #</th>
<th>Scale</th>
<th>Never</th>
<th>Almost Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>At my work, I feel bursting with energy.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I find the work that I do full of meaning and purpose.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>At my job, I feel strong and vigorous</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am enthusiastic about my job.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>When I am working, I forget everything else around me.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>My job inspires me.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>When I get up in the morning, I feel like going to work</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I feel happy when I am working intensely.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I can continue working for very long periods at a time.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>
HUMAN RESOURCE PERFORMANCE APPRAISAL SYSTEM IN HOSPITALS OF KARACHI

Khalid Amin
Departments of Management & HRM
Institute of Business Management (IoBM),
Karachi, Pakistan.

Abstract

In spite of the enormous impact of Performance Appraisal System (PAS) on human resource productivity and motivation, most hospitals in Karachi do not have a scientific and comprehensive PAS which covers HR and all organizational functions. The study shows that PAS is limited to doctors and nurses in a large number of hospitals. Mostly performance assessment is carried out on annual basis for evaluating the performance of HR, and is used for taking decisions on human resource promotion, placement and training and development. However, PA is not part of a comprehensive HR Performance Management System (PMS) in a vast majority of hospitals. The objectives of this paper were: to study the nature of PAS prevalent in hospitals of Karachi and to propose a model PAS for hospitals of Karachi. A stratified sample of 46 hospitals was taken from a total of 252 hospitals in Karachi. The required information was collected in April 2012 through a structured questionnaire based on the research instruments used by empirical studies summarized in the literature review. The required data was collected through a structured questionnaire which was pretested to make the responses close ended. The questionnaire was filled through personal visits to the hospitals. A total of 23 surveyors were involved in collection of data from selected hospitals.

Keywords: Human Resource, Hospitals, Performance Appraisal Management.
JEL Classification: 0150.
1. Introduction

Performance appraisal (PA) of human resource (HR) is the most important part of performance management system which is a critical component of the Human Resource Management (HRM). Before the evolution of the concept of PA in the late 1960's, HR were not considered organizational resource of any significance and only good and adverse remarks about HR were recorded in their PA forms which were then presented at the end of year to the respective HR to make them aware of their weak areas. The last four decades have seen PA of HR developing into a highly scientifically technique for evaluating the PA of employees. In hospitals the PAS developed gradually adding new dimension to it to meet the changing nature and work requirements of the hospital HR.

The PA process in hospitals provides an opportunity for HR to discuss hospitals’ goals and work requirements to create a performance plan for achieving hospital goals effectively and efficiently. In the absence of such a PAS, hospital HR is unclear as to the hospital management’s expectations regarding their performance targets and standards, leading to low HR productivity, costly mistakes, stress, de-motivation, and conflicts. A sound PAS subscribes to the important management principle: “What gets measured gets done”.

PA is a step by step process by which the hospital management brings forth the optimum motivation of its HR and helps in achieving institutional goals and objectives. PA is premeditated in nature and reinforces both individual and organizational effectiveness.

To get maximum performance from its human capital, PA should be a vital concern for all hospitals. A significant objective of hospital management is to perk up the performance of the organization against specified performance targets. PA is one of the important management tools needed to attain this goal. The main objective of PA is continuous improvement in HR performance with a view to attaining organizational goals. The performance improvements resulting from PA should be seen in terms of achievement of the objectives and goals of the hospitals.
A precise definition of PA is found in Armstrong and Murtis (1991) where the authors state that PA consists of a systematic approach to the management of people, using performance goals, measurement, feedback, and recognition as a means of motivating them to realize their maximum potential. It embraces all formal or informal methods adopted by an organization and its managers to optimize corporate effectiveness and efficiency and motivation of HR. These are important elements and a part of an integrated approach, which consists of an interlocking series of processes, attitudes and behavior which, together, produce a coherent strategy for adding value and improving results.

Increase in popularity of the concept of PA in hospitals as a management technique in recent years can be attributed to two main causes. Since the early 1980s, hospitals around the world have experienced continually increasing level of market competition from local and foreign hospitals. Consequently, it has become imperative for their survival and growth that they ensure high levels of individual, group and hospital performance.

To generate and sustain such high level of performance, the management of many hospitals, have increasingly emphasized the introduction of management policies and practices which can significantly impact all aspects of their organizational performance. With regard to the performance of HR, PAS is a management concept which brings together a variety of techniques focusing on the objectives of the hospitals and the corresponding performance targets of individuals, groups and the hospital organization as a whole required to achieve them. The objective of PAS is primarily to specify employee performance targets and thereby monitor the work performance of HR by the use of appropriate performance measurement and control techniques.

Often the distinction between PA and performance management is not clearly understood. PA is one component of the performance management system and is the process of assessing an employee’s performance in the current position. Thus ‘appraisal’ is a periodic affair while ‘Performance Management’ is a year round, ongoing
activity. HR appraisal focuses on ratings while ‘performance management’, besides PA, focuses on the work, the stakeholder’s expectations, service levels, productivity, motivation effort and all such performance related variables.

The PAS process helps organizations to:

• Serve as the key medium to implement organizational objectives and policy (top to bottom, all through the organization).

• Line up and incorporate the objectives and Key Performance Indicators (KPI’s) of the organization horizontally and vertically through all job classes and levels, including management. In this way the whole scheme works jointly to aligning measures with result.

• Facilitate constant performance enhancement, organization progress and cultural change.

• Attain excellence and competence for the organizational as well as the HR.

• Continually enhance employee competence through classification of output-related training and development requirements.

• Minimize line manager unwillingness and fright to do PA of their subordinates.

• Facilitate performance-based compensation and rewards, so that HR can link their output and the rewards they get.

2. Literature Review
Armstrong (2000) defines PA as a “strategic and integrated process that delivers sustained success to organizations by improving the performance of people who work in them by developing the capabilities of individual contributors and teams”

Armstrong recommended that PA be incorporated in two stages:

• Vertical integration - the coalition of business, team and individual targets.
• **Horizontal integration** - linking different facets of crosses cutting actions, to achieve a consistent approach to the management and development of people.

According to Moulin (2002) and de Bruijn (2001), the objective of PA is:

• Rationalization, in terms of size, cost and functions.
• Introduction of more effective systems of financial accountability.
• Greater transparency in the operation of organizations.
• Upgrading of the skills base and the modernization of its functional principles, procedures and systems;
• Development of a realistic remuneration policy based on performance.

Qing Hang Chen (2010) in his article, “Design and Implementation of PAS for Hospital Staff”, said that the PA of most hospital medical staff turns to be wide and indistinct. It is trickier to reflect the genuine working situation of HR exactly by analysis of accurate data, neutrality and judiciousness. In order to calculate the performance we have to set some of the performance indicators to get an idea in quantitative terms.

Taylor (2010) suggests numerous ways to prove the value of implementing a good PA process and system. If the goal is to embark on to gather this information, the HR are required to first define their performance map then set a plan in position to manage it, then find the right mechanism for operation that will take little time and exertion.

**PAS** is a continuous HR improvement process which should be incorporated into a hospital management system (Carlos, Gomes, Mahmud, Yasin, and Lisboa, 2004; Brand and Pretorius, 2003). It is a combined effort of people functioning together towards accomplishment of organizational and HR goals. Supervisors need to authenticate what the HR are acquainted with and build on it.
Managers should also be given continuous training in order to improve their administrative skills (Carlos, et al. 2004).

Effective execution of PAS requires awareness and skills of evaluator/administrator about the PAS used in their hospitals (Fletcher, Baldry and Cunningham 1998; Wright and Cheung, 2007). They should be well-informed about the organizational policies and procedures (i.e. use of PA forms, performance planning, monitoring, evaluation and rewarding) (Fletcher, Baldry and Cunningham 1998). The evaluator/controller should also have the following expertise:

- Ability to examine performance and orientation of hospital HR.
- Be well-informed about the scope and features of HR performance.
- Have insight of the hospital evaluation system.

Employees need performance feedback on a daily, monthly and quarterly basis. This can be attained if there is nonstop monitoring and feedback of the employee’s performance by the supervisor. Feedback keeps HR focused and strengthens understanding between managers and HR. Setting of objectives with feedback results in elevated performance and boosts productivity. (Kouzes and Posner, 2002). PA should focus on and deal with the gaps or deficiencies recognized during monitoring.

Meager preparation by managers in the execution of PAS creates clash between manager and HR (Kumar, 1999). This corresponds to Hunt (1992) who said there are many latent troubles with Performance Assessment.

In South Africa the PAS was initiated in the public hospitals in order to get better service liberation and undo the disproportional outlook of the past colonial system. However, administrators lacked skills to execute the PAS resulting in low level of inspiration and unconstructive attitudes towards the staff of hospitals (Van Der Waldt, 2004).
Employee’s and administrator insight of the PAS is prejudiced by the lack of information on employee policies and procedures. Lack of information by managers has a pessimistic impact on the accomplishment of the PAS which will further fabricate meager outcomes on the objectives of the hospitals (Potosky and Ramakrishna 2002).

PAS is an essential component of HRM; however, execution of PAS is still a dilemma in most hospitals. It is therefore; easy to comprehend how the correct execution of the PAS facilitates development and fitness in the organization. It is vital that the managers executing the system have the right insight and approach towards it and comprehend the benefits ingrained in it. Continuous training of both the administrators and HR in hospitals is imperative so that quality of performance of the entire HR in hospital is ensured as per performance targets.

3. Research Methodology

A stratified sample of 46 hospitals was taken from a total of 252 hospitals in Karachi. The stratification was based on size, ownership (public or private), location and class, (quality of service) of the hospitals. The required information was collected in April 2012 through a structured questionnaire based on the research instruments used by empirical studies.

Data Collection Tools:

The required data was collected through a structured questionnaire which was pretested to make the responses close ended. The questionnaire was filed through personal visits to the hospitals. A total of 23 surveyors were involved in collection of data from selected hospitals.

4. Summary Research Findings

Summary of responses to the questionnaire received from the hospitals is as follows:
4.1. Does Your Hospital Have A Comprehensive PA Management System For All HR?

Only 17% of hospitals have a comprehensive PMS for all HR.

4.2. Does Your Hospital Have Pas For HR?

100% of the hospitals reported that they have some sort of PAS for their HR.
4.3. How Often Is The PA Carried Out?

In 72% of the hospitals, PA is carried out annually, while in 22% it is done semi annually and in 6% it is done quarterly.

4.4. Are The Performance Targets For Personnel Quantified?

Only 28% hospitals have quantified performance targets of HR while 72% of the hospitals have qualitative PA.
4.5. Does Pas Cover All The HR And Departments?

In 67% hospitals PA covers only selective employee categories such as doctors and nurses while in 33% hospitals PA covers all the HR including support staff.

4.6. Is Exceptional Performance Recognized By The Organization?

In 46% hospitals exceptional performance of HR is recognized while in 32% hospitals exceptional performances is not recognized which leads to de-motivation of hospital staff.
4.7. How Do You Reward Your Hospital HR?

When employee performs exceptionally well 63% of the hospitals reward them with bonuses, 18% with holidays vacations, 10% with promotions and 9% with other incentives such as certificates, prices etc.

4.8. Are The Rewards A Source Of Motivation For Your HR?

78% hospitals do not feel that rewards are a source of motivation for HR while 22% hospitals agree that rewards are a source of HR motivation.

4.9. How Do Rewards Help To Motivate HR?
39% of the Hospitals responded that rewards helped in increasing productivity, 35% of the hospitals stated that rewards have reduced their turnover rate, while 19% said that rewards helped to reduce rate of absentism.

4.10. Does Pa Help You Identify Performance Gaps In Your HR For Appropriate Training Programs

59% hospitals agreed that PA has helped them to identify gaps in employee’s performance, based on which appropriate training programs were recommended while 41% hospitals did not use PA to identify training and development needs.

4.11. Does Your Hospital Face Any Problem In PA of HR?

71% of the hospitals responded that they did not face any problem in conducting PA of their employees while 29% of the hospitals faced problems in the process.
4.12. Does Your Hospital Take Feed Back From Employees On Their PA?

57% hospitals take feedback of the HR regarding their PA while 43% hospitals do not take any feedback from HR.

4.13. Does Your Hospital Discuss PA With HR?

52% of the hospitals discuss the PA with their employees whereas 48% of the hospitals do not consider it necessary to discuss PA with HR.
In 63% hospitals, top management is responsible for establishing performance standards while 18% used department heads and HR department was 13%. 
4.15. WHAT TYPES OF TRAINING IS RECOMMENDED BASED ON PA?

72% of respondents were in favor of on job training while 28% chose classroom training.

4.16. WHAT IS THE OVERALL RESULT OF PA?

The overall result of performance appraisal was better performance 48% while reduced absentism and increased motivation were 24% and 28% respectively.
4.17. IS THERE A NEED FOR IMPROVING PAS IN YOUR HOSPITAL?

63% of the respondents felt that there was a need to improve the PAS while 37% felt the existing system was satisfactory.

4.18. SUGGESTIONS FOR IMPROVING PAS?

Respondents suggested that performance appraisal system should be more scientific, must be done on annual basis, should include all employees and should cover areas of training and development.
5. Model Performance Appraisal System For Hospitals

There is a growing realization in the hospital industry that human resource is the most important factor in the performance and reputation of a hospital. A hospital’s success in accomplishing its strategic goals and objectives depends upon its ability to manage its HR performance. As the size, complexity and competition in the field of hospital services increases so does the need for improving the PAS in hospitals to ensure optimum HR performance. Few services impact the lives of humans as much as the services offered by health-care personnel. Therefore, getting optimum performance of all hospital employees is critical to the performance of hospitals. Lack of a scientific PAS in hospital is one of the major factors contributing to the poor performance of the hospitals in Karachi.

All employees have a basic need for recognition and advancement in their careers. A PAS that duly caters for those human aspirations promotes greater motivation and productivity. Lack or inadequacy of this factor leads to HR frustration, disillusionment and under performance on the job. The HR efficiency and productivity of hospital HR, to a significant extent, depends on how effectively its PAS is formulated and implemented.

The proposed model of PAS for hospitals is based on current research and academic material available and the work done by consultants such as McKenzie and PWS Coopers for hospitals in different countries including India and Pakistan.

The PAS proposed is the comprehensive set of HR activities. The basic objective of which is to promote motivation of HR in hospitals and thereby bring about optimum performance of personnel - PA is one of the components of the PMS which evaluate the performance of HR against pre determined performance standards.

5.1. Essential Components Of A Comprehensive Pas For Hospitals

5.1.1. Performance Planning:

Top management of the hospital should determine what results it want to achieve through its HR and to achieve those results, what
specific performance should be contributed by the various personnel in the organization. The combined performance of all the various departments/functions and its HR will determine the overall performance of the hospital in achieving its targeted key results, such as profitability, business growth and goodwill.

5.1.2. Determining Employee Performance Targets:

The manager/supervisor should discuss and agree with the employee specific performance goals and targets expected to be achieved by the employee within specified time schedule. An effective and efficient PAS for hospitals can be formal or informal. The most important consideration in designing an appropriate PAS is that it should fulfill the strategic objectives of the hospitals. An effective appraisal management system should encompass three time periods i.e. Past (to give data related to past performance), Present (to give work plan, goals, and development opportunities) and Future (to give results to be achieved in future under strategic targets.

5.2. Essential Purposes Of A Comprehensive Pas For Hospitals:

5.2.1. PA and Evaluation: It should enable employer and employee to know how the employee performed against expected performance targets/standards.

5.2.2. Reward and Compensation: Based on employee PA and evaluation the hospital management should be able to determine reward and compensation of HR such as salary, periodic increment, bonuses, promotion, placement, retention or severance.

5.2.3. Training and Development: Employee appraisal identifies deficiencies and weaknesses in the HR performance against the present and future job requirements based on which training and development needs can be ascertained.

5.2.4. Compliance of Legal Requirements: Formal PA forms a legal defense for supporting action against an employee in case of unsatisfactory employee performance and actions taken by management thereon.
5.3. Essential Components Of An Effective Pas For Hospitals:

5.3.1. Appraisal basis: An appraisal system must be based on scientific objectives and methodology for correct measurement of performance. HR should be informed in advance of expectations and evaluation standards of the hospitals.

5.3.2. Appraiser: The most appropriate person to evaluate the performance of an employee is his/her direct supervisor.

5.3.3. What to apprise: Employee’s current performance and future potential should be appraised based on job – relevant factors.

5.3.4. Objective of appraisal: To enable the employee and employer to know how the employee is performing against performance expectations and based thereon determine the employee’s suitability for recognition, reward, better placement, training and development or punishment.

5.3.5. Periodicity: Formal appraisal must be done on regular intervals which could be annually, biannually, quarterly, monthly or weekly depending upon the objective of appraisal. Informal appraisal should be carried out on an ongoing and continuous basis.

5.3.6. Methodology: The most appropriate method or technique of appraisal should be employed which most accurately gauges the performance of the employee. Documented process, specifying rules for evaluating HR should be established.

5.3.7. Appraisal training: Appraisers and appraisee should be trained on appraising performance.

5.3.8. Justification: Justification for appraisal results and recommendations should be documented.

5.3.9. Feedback: Timely feedback on PA should be provided to HR.

5.3.10. Appeal: HR should be allowed to freely appeal on their appraisal.

5.3.11. The appraisal system should be designed professionally and scientifically so that it fulfills its objective effectively and efficiently.
5.3.12. The appraiser and the appraisee should understand, accept and have faith in the system.

5.3.13. The appraisal system must have support of the top management of the hospital.

5.3.14. Performance basis and standards should be available in writing to all concerned.

5.3.15. The performance standards should be easily and understandable.

5.3.16. There should be close collaboration between line managers and HR manager in successful implementation of the appraisal system.

5.3.17. Adequate time should be allocated for PA interview.

5.3.18. Regular and constructive performance feedback should be provided to the employee.

5.3.19. Improvements should be made in the PAS as and when required.

5.3.10. PAS should be applied to all HR in all functions/departments. Different appraisal forms should be used to appraise managerial, supervisory and worker category of HR.

5.4. **Appraisal Pitfalls To Be Avoided:**

5.4.1. Employee performance should be appraised, not the job.

5.4.2. Each important performance factor should be appraised and the evaluation should not be based on an overall impression.

5.4.3. The appraisal should be objective not subjective.

5.4.4. Subjectivity should be eliminated/minimized by applying quantifiable appraisal techniques.

5.5. **Significant Advantages Of Proposed Pas:**

5.5.1. Provides a basis for review of employee’s performance by employer and employee.
5.5.2. Identifies areas for performance improvement.

5.5.3. Shows the organization is interested in the employee and his performance.

5.5.4. Provides an acceptable basis for decisions regarding employee’s recognition and rewards, promotion, placement, punishment and severance.

5.5.5. Enables recommendation for training and development to overcome employee’s performance deficiencies.
5.6. Model Appraisal Forms for Doctors and Nurses are provided herein for reference.

PERFORMANCE APPRAISAL FORM
For Doctors

PART I (To be filled up by Human Resource Department)

Name………………………………………………
Designation……………………
Department……………………………………
Date of Employment………………………

PART II (To be filled by the Department Head)

1. Job knowledge:
   (Has sufficient knowledge of all aspects of the job)
   1.1. Has sound knowledge of work
   1.2. Has good knowledge but needs help occasionally
   1.3. Has fair knowledge
   1.4. Has a lot to learn about job

2. Application
   (Does work diligently and effectively?)
   2.1. Exceptionally keen and energetic at work
   2.2. A good industrious doctor
   2.3. Usually works diligently but could apply better
   2.4. Works but does not pay enough attention
   2.5. Wastes time
3. Organizing ability:
(Does organize the work in his department/section well?)
3.1. Extremely competent organizer
3.2. Good organizer, can plan ahead
3.3. Efficient in normal circumstances
3.4. Not a good organizer
3.5. Sometimes gets in a mess

4. Leadership:
(Has good working relationships with his staff? Can he maintain discipline?)
4.1. Well-liked and respected. Relationship excellent with seniors and subordinates
4.2. Usually respected. Gets on well with subordinates
4.3. Satisfactory in relationships
4.4. Does not inspire a great deal of respect
4.5. Not respected

5. Constructive imagination:
(Does possess the ability to produce new ideas and the skills of constructive criticism?)
5.1. Finds innovation ways of solving problems and initiates new ideas
5.2. Has an open and progressive mind
5.3. Quick to recognize opportunities for improvement
5.4. Does not generate new ideas or show initiative

6. Integrity:
(Is he a person of character? Can be relied upon in all circumstances?)
6.1. Always frank and straightforward
6.2. Frank but gives biased opinion
6.3. Not trustworthy

7. Verbal and written ability:
(Does speak/write clearly and concisely?)
7.1. Excellent command of language; clear and concise
7.2. Can express himself well
7.3. Adequate ability to express
7.4. Cannot convey ideas to others easily
7.5. Difficult to understand

8. Personality:
(What kind of habits, attitudes, traits and emotional qualities does he possess?)
8.1. Is adaptable, to changing circumstances
8.2. Acceptable at all levels
8.3. Always confident
8.4. Gives the impression of insecurity
8.5. Is timid

9. Judgment:
(Does analyze problems decisively and accurately? Does he evaluate data objectively?)
9.1. Takes decisions boldly and quickly
9.2. Understands the implications of his decision
9.3. Delays decisions but always takes the right decision
9.4. Gives quick decisions, but wrong ones
9.5. Gives wrong and late decisions

10. Personal contacts
(Can be relied upon for outside work? If not, why?)
| Research HR Performance Appraisal System in Hospitals of Karachi |
|---|---|
| 1.1. Always successful in external work |
| 1.2. Actively stimulates goodwill |
| 1.3. Performs external work well |
| 1.4. Sometimes not successful in external work |
| 1.5. Poor contacts and no success in external work |

11. Targets:
(What is your opinion about achievement in the current year?)
1.1. Overshoot his target
1.2. Achieved his target easily
1.3. Needed help to achieve his target
1.4. Claim close to his target
1.5. Absolutely failed to reach his target

12. Training:
(Does he need Training for What?)
(a) higher post, (b) present post, and (c) training others
12.1. Possesses excellent training
12.2. Can train others too
12.3. Has adequate training
12.4. Will need training some time in future
12.5. Need training urgently

13. Remarks (If any)
14. Recommended for promotion / salary increase / training:

(Signature of Department Head)

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PART III (To be filled up by concerned employee)

A. Please give your comments about your performance for the current year.

..............................................................................................................................

B. Do you have any suggestion to improve the functioning of your job, your department / the Hospital?

..............................................................................................................................

C. Any other suggestions/comments:

..............................................................................................................................

(Signature of concerned employee)

PART IV (To be filled up jointly by Department Head and concerned employee)

On PA:

• We agree with each other.
• We differ slightly with each other.
• We do not agree at all.
• Plan for next year:

..............................................................................................................................

(Signature of concerned employee)

(Signature of Department Head)
PART V (To be filled by Hospital Administrator)

.................................................................
.................................................................
.................................................................
.................................................................

Signature of Hospital Administrator

5.7. PERFORMANCE APPRAISAL FORM
For Nurses

PART I (To be filled up by Human Resource Department)

Name............................................................................................................

Present Designation .....................................................................................

Department .................................................................................................

Date of Employment ....................................................................................

Date of promotion to the present post, if any

..................................................................................................................

..................................................................................................................
### PART II (To be filled by the Department Head)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of work</td>
<td>1</td>
</tr>
<tr>
<td>(Consider neatness and accuracy of work regardless of volume)</td>
<td>Exceptional</td>
</tr>
<tr>
<td>2. Quantity of work</td>
<td></td>
</tr>
<tr>
<td>(Consider volume of work produced)</td>
<td>Very efficient, produces beyond target</td>
</tr>
<tr>
<td>3. Job Knowledge</td>
<td></td>
</tr>
<tr>
<td>(Consider all the requirements of the job including knowledge of the job, tools, methods etc.)</td>
<td>Thorough grasp of job</td>
</tr>
<tr>
<td>4. Ability to learn</td>
<td></td>
</tr>
<tr>
<td>(Consider mental ability to learn)</td>
<td>Learns rapidly</td>
</tr>
<tr>
<td>5. Co-operation</td>
<td></td>
</tr>
<tr>
<td>(Consider attitude toward work and fellow workers)</td>
<td>Goes out of the way to cooperate</td>
</tr>
<tr>
<td>6. Initiative</td>
<td></td>
</tr>
<tr>
<td>(Find new ways of doing jobs and thinks of new ideas)</td>
<td>Always takes initiative</td>
</tr>
<tr>
<td>7. Dependability</td>
<td></td>
</tr>
<tr>
<td>(Consider the manner in which he/she applies to the job, regularity of attendance)</td>
<td>Completely dependable on the job</td>
</tr>
</tbody>
</table>

8. Should additional training be given

9. If yes, type of training

10. Does this employee possess special skills that could be used to another position to better advantage?
11. Name the Skill

12. Appraisal shown to employee on................................and contents of discussion in brief are given below:

13. Remarks:

14. Recommended for promotion / special compensation increase / training

15. Explain:

(Signature of the Employee)   (Signature of the Department Head)
PART II (To be filled by Hospital Administrator)

(Signature of the Hospital Administrator)

Instructions for Appraisers

The following instructions should be given to the person making the appraisal:

1. Please fill up this form seriously. You are a judge.
2. Base your judgment on the entire period of appraisal and not upon isolated incidents.
3. Place tick mark at the appropriate places.

Use separate pages, if required for explanations.

6. CONCLUSION:

The PAS used in hospitals of Karachi, has the following deficiencies:

• Lacks conviction and support of top management of most hospitals.
• Does not cover all employees and all organizational functions.
• Not scientific.
• Limited linkage between PAS and HR reward and training.
• Performance appraiser and appraisee, both lack education and training on PA.
In view of significant deficiencies in PAS in hospitals, there is an urgent need for creating awareness in the hospital management that an efficient and effective PAS is essential for ensuring optimum productivity and motivation of HR, for which the management should implement a professional and scientific PAS covering all employees and all organizational functions of the hospitals.
REFERENCES:


Appendix:

QUESTIONNAIRE

THE PAS IN HOSPITALS OF KARACHI

Name of Hospital: __________________________________________

Address: __________________________________________________

Name and designation of interviewee: __________________________

Position/Designation: ________________________________________

Contact (Hospital) __________________________________________

1. **HOSPITAL INFORMATION**
   
   1.1. WHEN WAS THE HOSPITAL ESTABLISHED
   1.2. NUMBER OF BEDS IN THE HOSPITAL

2. **HUMAN RESOURCE INFORMATION**
   
   2.1. NUMBER OF DOCTORS
   2.2. NUMBER OF NURSES
   2.3. NUMBER OF OTHER STAFF

3. **HR PA INFORMATION:**
   
   3.1. Does your Hospital have PAS comprehensive for all HR?
   - Yes
   - No

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3.2. Does your hospital have PAS for HR?
- Have PAS
- Do not have PAS

3.3. How often is the PA carried out?
- Quarterly
- Semiannually
- Annually

3.4. Are the performance targets for personnel quantified?
- Yes
- No

3.5. Does PAS cover all the HR and departments?
- Yes
- No

3.6. Is exceptional Performance recognized by the organization?
- Yes
- No
- Sometimes

3.7. How are HR rewarded?
- Promotion
- Bonuses
- Holiday vacation
<table>
<thead>
<tr>
<th>3.8. Are the rewards a source of motivation for your HR?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes  ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.9. How do rewards helped to motivate HR?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Reduce the turnover rate  ☐ Reduce number of absenteeism  ☐ Increase productivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.10. On the basis of your PA do you identify performance gaps in HR and recommend appropriate training programs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes  ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.11. Does your Hospital face any problem in PA of HR?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Face problems in PA of HR  ☐ Do not Face problems in PA of HR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.12. Does your Hospital take feedback from HR on their PA?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Take feedback from their HR  ☐ Do not take feedback from their HR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.13. Does your Hospital discuss PA with HR?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Discuss PA  ☐ Do not discuss PA</td>
</tr>
</tbody>
</table>

---

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3.14. Who is responsible for establishing Performance Standards for HR?

- Top Management/ owner
- Department Heads
- Hr Department
- Chief Medical Officer

3.15 What type of training is recommended based on PA?

- On the job training
- Class room Training Session

3.16 What is the overall result of PAS?

- Reduced Absenteeism
- Increased Motivation Level
- Improved Performance/Productivity

3.17. Is there a need for improving PAS in your Hospital?

- Yes
- No

3.18. Suggestion for improving PAS?

Date: ...............................    Name and Sign:...........................................
CHALLENGES IN BANKS’
FINANCE TO THE SME SECTOR

Kamran A. Rabbani
Department of Accounting & Finance
Institute of Business Management (IoBM)
Karachi, Pakistan

Abstract:
Pakistan is facing some serious economic challenges including unemployment among the youth, lack of broad-based overall economic growth and incapability of achieving poverty alleviation targets. The share of Small and Medium Enterprises (SMEs) in the overall economy of the country is significant; therefore, the development and growth of these enterprises can play a vital role in solving these issues. However, SMEs which constitute over 99% of enterprises in Pakistan experience the challenges of securing financing for starting up and expanding or upgrading of their small businesses. This paper attempts to examines the reasons for this limited access of SME financing from banks. The study addresses two main questions. First, why do commercial banks in Pakistan not lend to SMEs? Second, what could be done to improve the situation? Also, it attempts to compare Indian and Pakistani SME financing regimes.

Keywords: SME lending in Pakistan, importance of SME finance, issues in SME finance and proposed recommendations.

JEL Classification: G210
I. Importance of SME sector in the Pakistan Economy

The SME sector (as defined by the State Bank of Pakistan*) is the backbone of Pakistan’s economy. According to the Economic Survey of Pakistan 2010-11, 99% enterprises in Pakistan are SMEs, 44% of which are in rural areas and 56% in the urban areas. Location wise 64% are in Punjab, 18% in Sindh, 15% in Khyber Pakhtunkhwa (KPK) and only 2% in Baluchistan. SME sector contributes 40% in the GDP. It provides 80% of unskilled labour jobs, accounts for 35% value addition and generates 30% of exports earnings.

Despite its significance for Pakistan’s economy, the biggest problem being faced by the sector is the unavailability of easy, adequate and timely bank financing at competitive rates for setting up new business or expansion of their existing businesses. According to a study conducted by Lahore University of Management Sciences (LUMS) in 2002, access to finance was single most important impediment to growth. Moghal and Wada’s (2008) study on SMEs in Pakistan reveals that access to formal sector credit as a major constraint to SMEs growth and this constraint is specifically binding for SMEs as compared to large firms. It is also found that limited access to credit is due to constraints on both banks and SMEs sides. Commercial banks are the single largest source of external credit to SME sector which provide, according to Investment Climate Assessment 2003, only 7% to 8% of the total funding requirements of SMEs.

*Small and Medium Enterprise (SME) means an entity, ideally not a public limited company, which does not employ more than 250 persons (if it is manufacturing/service concern) and 50 persons (if it is trading concern) and also fulfills the following criteria of either ‘a’ and ‘c’ or ‘b’ and ‘c’ as relevant:
(a) A trading/service concern with total assets at cost excluding land and building upto Rs 50 million.
(b) A manufacturing concern with total assets at cost excluding land and building upto Rs 100 million.
(c) Any concern (trading, service or manufacturing) with net sales not exceeding Rs 300 million as per latest financial statements.
An Individual, if he or she meets the above criteria, can also be categorized as an SME.
In addition, access to finance is a key element for SMEs productivity and competitiveness growth. With the availability of required financing from banks, SMEs can expand their businesses and acquire the latest technologies in order to compete with their local and international market competitors in quality and pricing. Lack of access of SME financing results in lower growth in income and employment opportunities. Without bank financing, borrowing becomes more expensive and profit margins are reduced, as SMEs have to obtain financing from informal sector at peak rates, holding back the establishment of new units and more importantly expansion of business enterprises.

II. Banks Financing to SMEs

Financing to increase in the SMEs production capacity and develop international quality products is critical to long term economic success of SMEs. Most banks in Pakistan are reportedly found reluctant to lend to SMEs because of high default risk and processing costs. Banks prefer to invest in treasury bonds or large-scale corporate sector. Also, it has been observed that despite importance of SMEs in economic development, banks' financing to the sector has been declining over the last few years. SBP and banks are facing a challenging task of not only checking the current declining trend of SME financing but also taking remedial measures to turn the same into positive growth trend as being witnessed in our neighbour countries. The SBP Development Finance Quarterly Review, 2011 revealed the following interesting facts about bank lending to SME sector in Pakistan:

a. SME financing of banks has been significantly reduced from Rs. 383 billion to Rs. 268 billion (30%) in September 2011. The share financing to SMEs in total advance
portfolio of banks has declined from 15.4% to only 7.7% during this period.

b. Banks provided advances mainly for working capital (75.8%) to SMEs and share of advances in fixed investment was only 12.9%, which shows banks reluctance to meet the long term financing needs of SMEs sector.

c. 91% of the bank’s total SMEs Portfolio is concentrated in Punjab and Sindh only, with shares of 65.28% and 25.75% respectively. Only 9% is shared by other regions KPK, Baluchistan, FATA, GP and AJK which shows strong regional disparity.

d. SMEs are mainly financing in three cities: Lahore, Karachi and Faisalabad. These account for around half of SME bank financing. The leading top 20 out of total 131 districts makeup 83% of total SME financing while only 17% goes to the remaining 111 districts.

e. The total number of SME borrowers stands at around two hundred thousand only constituting about 5.2% of the total number of outstanding borrowers of the banking industry, a decline of 7.1% in September 2011 when compared with a rise of 7.2% during the corresponding period in 2010. This decline is comparatively higher than the overall reduction of 1.8% in the number of total industry borrowers.

f. Out of SMEs which were successful in getting finance, only 6.4% borrowers obtained long term financing for
fixed investment, 88.4% borrowers obtained working capital finance and 5.6% borrowers availed trade finance.

### III. Accessibility of SME Financing by Pakistani versus Indian SMEs

Pakistani SMEs competitiveness is restricted due to structural weaknesses and lack of institutional support from the government agencies and banks. The performance of local and foreign banks especially SME bank are not satisfactory as decline in bank lending was reported 7.1% in March, 2011. On the other hand, India has a strong industrial base and its small-scale sector has grown at phenomenal rate of 35% p.a during the last three decades. Indian government is giving top priority to SME sector and its financing requirements and SME financing increased by 32% in March, 2010-11. Small Industries Development Bank of India (SIDBI) is playing a vital role in promotion, financing and development of SMEs.

SMEs contribution in India’s economy is almost same as in Pakistan but their accessibility of financing from banks is significantly higher. According to surveys conducted in India and Pakistan, in India 95% SMEs have bank accounts and 32% of SMEs borrow from banks. On the contrary in Pakistan only 36% of SMEs have bank accounts and 7% borrow from banks.

Following is a comparative analysis of SMEs access to finance, contribution to economy and intervention programs in India and Pakistan.
Challenges In Banks’ Finance To The SME Sector

<table>
<thead>
<tr>
<th>Access to Finance</th>
<th>India</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Accounts</td>
<td>95%</td>
<td>36%</td>
</tr>
<tr>
<td>Obtain formal</td>
<td>32%</td>
<td>7%</td>
</tr>
<tr>
<td>lending</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contribution</th>
<th>India</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of enterprises</td>
<td>80%</td>
<td>99%</td>
</tr>
<tr>
<td>Exports</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Employment</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>GDP</td>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>

| Growth of Banks Lending to SME Sector | March 2008-2009 | 19.94% | (8.9)%
|--------------------------------------|-----------------|--------|
| March 2009-2010                      | 4.44%           | (6.6)%
| March 2010-2011                      | 32.08%          | (7.1)%

<table>
<thead>
<tr>
<th>Intervention Programs by government agencies</th>
<th>Small Industries Development Bank.</th>
<th>SME Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bank is an apex institution for financing and development of SMEs</td>
<td>The government sponsored bank provides financing specifically to SME sector only</td>
<td></td>
</tr>
<tr>
<td>Priority Sector Lending Facility: Public and Private sector banks require 40% of net bank credit towards priority sectors including SMEs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Guarantee Fund Scheme for SMEs: Foreign banks require 32% of net bank credit under this scheme towards priority sectors of which 10 percent is allocated to SMEs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. Role of NBFIs and Modarabas in SME financing

Non Banking Financial Institutions (NBFIs) and Modarabas are playing a vital role in providing long term financing to SMEs. These institutions are more suited to SME lending as these institutions have expertise in long term mode of financing to SMEs like factoring and leasing products.

NBFIs financing to SMEs like banks are also showing declining trend. For example, its total disbursement was 8.8 billion which reached to 7.3 billion from 2009 to 2011. The decline of 17% in last two years was mainly due to law and order situation, increased discount rate and non availability of credit line at cheap rates.

V. Why should bank finance SMEs?

There is a misconception within the banking sector in Pakistan about SMEs. SME financing is generally seen unviable because of high risk and processing costs. However, according to the OECD survey in developed countries, SME financing is viable and profitable, as banks in OECD (developed) countries are more aggressively financing to the SME sector wherein debt gap is only 30%. This is compared with 70% in non-OECD (developing) countries.

Following are some key factors which should attract banks towards SMEs:

a. According to UNIDO report 2009-10, SMEs contribute over 90% of Business Enterprises and 50-60% of total employment globally. In Pakistan SMEs contribute 99% of all businesses and 80% in employment but banks provide only 7% to 8% of total financing needs of SME sector. Therefore, there is a
huge gap between demand and supply and market potential of SME financing.

b. According to World Retail Banking Report 2009-10, SME business accounts are almost one-third of retail Net Banking Income (NBI) globally. It comprises less than 10% of total retail banking portfolio. This shows that SME customers are less price sensitive compared to large sized enterprises. In addition, profitability is higher in SME lending in compared to others sectors.

c. SME customer believes in long-term relationship and generally remains loyal to the bank. More than 60% customers continue with the same bank for more than five years (Cab Calling, 2006).

d. SME customer provides significant cross sale opportunities to the banks. SMEs like to maintain accounts, purchase bank drafts, utilize other remittance facilities, use cash management services, place fixed deposit, avail forex services, open LC/BG, and avail term loan from the same branch.

e. SMEs offer an opportunity for risk portfolio diversification as they are active in various industry sectors and geographic locations. Furthermore, SMEs are small in size and their funding requirements are also small which enable bank to diversify portfolio risk.

VI. Issues in SME Financing: SME Baseline survey 2009

A comprehensive SME baseline survey was conducted by SMEDA in 2009 with the objective of improving SME access to finance. The questionnaire was administrated in 18 districts of the four provinces over a sample of 1604 SMEs with representation from manufacturing, trade, services and women entrepreneurs. The sample parameters catered to business with employment size of 6 to 250.
Finding of Survey

1. Only 16% of total respondent had applied for a bank loan during the last 2 years.
2. The major reasons for not applying for a bank loan by 84% of SMEs were:
   a) High interest rate charged by the banks from SME clients (37.5%).
   b) Respondents do not need a loan from banks (35.58%). They use their own equity, loan from friends, relatives and informal sources for running business.
   c) Banks loan application process and procedure is too lengthy and difficult to follow (11.54%).
   d) Respondents do not have collateral that could be offered to banks (7.47%).
   e) Respondents do not want to take interest based loans (5.77%).
   f) Banks are located far away from SMEs business place (2.14%).
3. Of 16% who applied for bank loans, 53% were rejected. The reasons for rejection of bank loan applications are as follows:

a. Collateral requirements of the banks are not met. The bankers feel that SMEs are risky clients and collateral is a minimum requirement for loan approval to SME clients (34.33%).

b. Financial illiteracy of SMEs, which becomes a hindrance in preparing financial statements and business plans. SMEs do not have resources to get services of professional accountants to prepare proper accounts (24.63%) and business plans (20.9%).

c. Banks are not interested in financing SMEs, as they perceive SME financing is highly risky due to high transaction cost (14.18%). They prefer investment in risk free-income generating assets.

d. Majority of SMEs do not maintain bank accounts on regular basis or have obtained loan previously. Therefore, they do not have past credit (5.97%).
4. Out of the 53% respondents (whose loan application were rejected) 86.57% respondent stated that they could not expend their business due to shortage of funds.

5. The majority of respondents (40.06%) stated that banker’s attitude towards SME applicants were business like i.e. treat like corporate customer. Only 24.71% respondents confirmed that their bankers’ attitude is friendly and helpful. 13.73% respondents informed that their bankers discouraged them to obtain loan.

6. The main purpose for obtaining banks loans according to the respondents was long term financing for expansion of their business (75%). Other purposes were to start new business (9.80%) and working capital requirements (9.41%).

**VII. Proposed Recommendations:**

After analysing above issues in SME financing, following are some recommendations for State Bank of Pakistan (SBP), banks and government agencies for real growth in Pakistani economy:-

1. Separate desks should be established in SMEDA branches, Trade Associations and Banks branches to provide support and guidance to SMEs on obtaining bank financing, preparation of financial statements / completing business plans and other legal formalities.

2. Banks should develop and launch collateral free equity, long term and short term financing products for SMEs such as leasing and account receivable discounting products.

3. Banks should develop cluster based financing products to minimise cost of lending and credit risk in SME financing.
4. SBP should establish a special guarantee fund for SMEs in order to replace collateral and encourage banks to lend SMEs more aggressively, ensuring that this fund is implemented in a professional manner.

5. SBP should involve Non-Bank Financial Institutions (NBFI) in providing long term financing to SMEs. Leasing companies and Modaraba companies are more suited to SME lending as these institutions have expertise in long term financing to SMEs and such facilities like factoring and leasing are more suited to SMEs.

6. SBP should develop alternative markets for SME financing to generate long term financing for SMEs which may be debt and equity markets. The existing listing requirements of Pakistan stock exchange are not SME-friendly. Government of Pakistan (GoP) should facilitate SMEs by relaxing legal requirements and registration costs. Venture capital financing is also popular source of new SMEs in developed countries.

7. SBP and banks should improve credit evaluation skills of bank officers as bank credit officers do not have required skill to evaluate SME’s ability and willingness to pay.

8. Banks should develop greater communication with SME Trade Associations and chamber of commerce which should promote better understanding of the financing need of SMEs, banks’ products knowledge to SMEs and recovery of NPL. Banks should set up SME counters and organise seminars and workshops to introduce their products.

9. SBP should provide some comparative benefits for banks for SME financing like long term credit line at discount rate, guarantee scheme and tax rebate.
10. Establish commercial courts and arbitration centres to settle commercial disputes between banks and SMEs speedily and reduce lengthy court process for recovery of NPL.

11. Simplify financial statements as SME have difficulty in preparing financial statements and have few means for engaging professional accountants. Therefore, banks use other means to verify the financial position and performance of SME and charge this additional cost in loan. Simplifying financial statement would allow more SMEs to meet the requirements of banks and reduce information gap between bankers and SMEs.
References:


Prudential (2004). Published by the State Bank of Pakistan for regulations of SMEs.


ALPHA RISK MANAGEMENT IN KARACHI STOCK EXCHANGE (KSE) 100 INDEX COMPANIES

Samina Riaz
Department of Accounting & Finance
Institute of Business Management (IoBM),
Karachi, Pakistan.

Abstract:

The objective of the study is to investigate alpha risk management in the selected Karachi Stock Exchange (KSE) 100 index companies during bearish and bullish trends from January 1, 2007 till June 30, 2010. Alpha is the abnormal rate of return on a security or portfolio in excess of what would be predicted by an equilibrium model like the capital asset pricing model (CAPM) and compares its risk-adjusted performance to a benchmark index. To prove the hypothesis that when market collapses most companies fall and when market recovers few companies recover earlier than the others. The period of study has been divided into 3 sub periods to analyze the market and specific stocks: peak, crisis and reversal periods. Out of 100 companies 26 companies have been selected having more than two million daily average sales volumes. The beta values are calculated for 26 companies, on the basis of beta values 8 companies are selected for statistical analysis because those companies moved along with the index while others did not recover during the reversal trend. It has been concluded that 8 stocks are less prone to negative sentiments of the overall market and move on companies’ own fundamentals.

Keywords: Free float, Jensen’s Alpha risk, beta risk, KSE 100 index
JEL Classification: G100

PAKISTAN BUSINESS REVIEW APRIL 2013
Introduction:

The market can be segmented into 3 distinct phases: 1) Bullish 2) Bearish and 3) Reversal. During the period under review, the KSE-100 index had given the negative return of 3.2% losing 319 points to close at 9,722 on average daily turnover of 136 million shares. In order to understand the changes in market behavior, one has to understand the forces that drive every individual stock which if put together, take the benchmark to new levels. In our case the benchmark is KSE-100 index which is dependent upon the movement of share prices of major 100 companies and their movement shows the bullish and bearish trend of the market. There are several factors involved in driving the benchmark. Sometimes the downward trend prevails despite the attractiveness in equity valuations that judges the market fundamentals and depends upon rising political temperature, increasing economic uncertainty and unsettled issues on regulatory fronts. But sooner or later, prices recover after a lackluster activity showing signs of a bullish or an upward trend. This study elaborates how the recovery process took the benchmark to higher levels depending upon some stocks whereas the other stocks remained laggard and have low impact on the benchmark movements.

1: Literature Review:

Many studies have been conducted on the stock market risk and return and specified the impact of political, financial, and economic risk on stock returns. Wan Jiun and Cheng (2009) examined the relative magnitude of conditional volatility and the international market systematic risk of stock prices in countries at different developmental stages and in various geographical areas by using returns of 4,916 stocks from 22 developed countries and 15 developing countries. They concluded that the stock prices in emerging markets are riskier than the ones in developed countries, measured by both conditional volatility and global beta. The equity values in Southeast Asia, South Europe, and Latin America are more volatile than the rest of the world. Similar results can be found in the country-level tests. The time-series analysis suggested that the stock returns in high risk countries tend
to be less volatile but the conditional volatility of stock return in less risky countries tends to increase. Campsey, Brigham, Norman and Patrick (1998) defined that stock's risk consists of company-specific risk, which can be eliminated by diversification and market (beta) risk. Baker, Ponniah and Smith (1998) studied to identify the most successful risk analysis techniques used by construction industry and operators in the UK. The techniques were broadly classified under qualitative and quantitative methods. The methodology of risk management consisted of risk analysis, evaluation and control. The authors send questionnaire to 27 oil and gas companies and 100 largest construction companies. The questionnaire contained 58 questions. Each questionnaire required approximately 30 to 40 minutes to complete. 127 companies were selected for the sample, 107 expressed an interest in participation and questionnaires were sent accordingly. The risk analysis techniques were broadly categorized into two groups: 1) Qualitative method, 2) Quantitative method. They concluded that in order to manage the risk efficiently, the construction and the oil and gas industries used techniques for Risk Analysis, Risk Evaluation and Risk Control which results in a controlled risk environment.

Brooks, Faff and Ho (1997) investigated the impact of regulatory changes on the stability of beta risk of banks. They found the positive impact of regulatory changes on the stability of beta risk of banks. They also found a similar pattern for non-banks suggesting that the impact on the banking industry is driving the rest of the economy. Diamonte, Liew and Stevens (1996) investigated the impact of political risk on stock returns in emerging and developed markets and concluded that there is more influence of political risk in emerging markets returns than the developed market returns.

Erb, Harvey and Viskanta (1996) investigated the impact of political and economic risk on asset returns and concluded that risk indexes are highly correlated with fundamental financial attributes and that financial risk variables are more pronounced in explaining future expected asset returns than political risk measures. The impact of economic and financial risk is most strongly evident in the
developed markets, while political risk measure helps to some extent in explaining asset returns in emerging equity markets. Chang and Pinegar (1987) documented, in accordance with Fama (1981) and Geske and Roll (1983), a negative relationship between stock returns and inflation which varies systematically with securities risk.

S. Ann B. Pushkin (1980), investigated the beta risk and had presented two sample size formulae and mathematical proof to demonstrate the formulae equivalency. He concluded that the two sample size formulae are meant to control beta risk in variable sampling plans and are interchangeable. Therefore, any of the two could be used as both will produce equivalent sample size results. One of the formulae is less complex mathematically and often used by auditors for sample size computation. Beaver, Kettler and Scholes (1970), Eskew (1979), and Elgers (1980) suggested, on the basis of beta analysis that accounting determined measures of risk were indeed impounded in market price-based risk measures.

Frank and Jack (1977), conducted research to determine the regression statistics from a sample of 700 stocks listed on New York Stock Exchange (NYSE) differ significantly when measured over bull and bear market conditions and to test that Single Index Market Model (SIMM) is an econometric relationship which does not shift systematically with bullish and bearish market conditions. They mentioned that the Single-Index Market Model (SIMM) is derived and denoted as $r_i = a_i + b_i r_m + e_i$ where, $a_i$ and $b_i$ are the regression intercept (called alpha) and slope (called beta), $r_i$ denotes the capital gain plus cash dividend rate of return for the $i$th common stock in the $t$th month; $r_m$ represents the pre-tax capital gain plus cash dividend one-month rate of return calculated from Standard and Poor’s 500 Composite (SP500) for the $t$th month. A modified version of the SIMM formulated to test the stability of the alphas and betas over bull and bear market conditions can be shown as $r_t = A_1 + A_2 d_t + B_1 r_m + B_2 d_t r_m + u_t$ where $E(u_t) = 0$ and $d_t$ variable is a binary variable which assumes the value
of unity in bull markets and zero otherwise. The three alternative definitions of bull and bear market conditions were given as:

- Bull and Bear Markets were delineated into two mutually exclusive and exhaustive subsets. It places most months when the market rises in the bullish category. But, months when the market rose amidst adjacent bearish months were classified as part of the bearish subset.

- Up and Down (UD) Markets: Months in which $r_{mt}$ (pre-tax capital gain plus cash dividend one-month rate of return) was non-negative are defined as Up months. And, months when $r_{mt}$ was negative were placed in down category.

- Substantial Up and Down (SUD) Months: The SUD procedure partitioned the sample into three subsets: months when the market moved Up-Substantially, months when the market moved Down-Substantially and months when the market moved neither Up- nor Down-Substantially.

A joint test results for alpha and beta showed that both the alpha and beta may change simultaneously if the distribution returns which characterizes an equity share is altered by bull and/or bear market conditions. A summary statistics for estimates based on 700 security sample using 3 definitions of bull and bear market conditions indicated that the SIMM is not significantly different in bull markets than it is in bear markets. In another test, the 700 stocks were examined separately to determine if either the alpha or the beta coefficients were less stable between bull and bear market conditions. The separate test indicated that some of the significant shifts in the SIMM merely result from marginally significant shifts in its statistics, most likely the beta, rather than a genuine economic change. It was concluded that neither the alpha nor the beta statistics in the Single Index Market Model (SIMM) appear to be significantly affected by alternating forces of bull and bear market conditions. However, the SIMM was found to be unaffected by the 3 different bull and bear market conditions.

Robert R. Grauer (1985) tested mathematically the expected return-beta plot in power utility Linear Risk Tolerance (LRT) economies and analyzed that in the power utility economies, a valuation equation
containing covariance and coskewness terms might better explain expected returns than one containing covariance terms alone. For this analysis, the common stock data consisted of annual, quarterly and monthly returns and annual market values were obtained. He concluded that the numerical ways to examine expected returns proved that the expected return-beta plots are similar to the plots found in empirical tests of the mean variance capital asset Pricing model (MV CAPM). However, ex-ante expected return-beta plot was actually downward sloping which is the evidence that a power utility LRT CAPM may provide a better theory of asset pricing than the MV CAPM does. This study is different from literature because it investigates the effect of stock return on the index return for the Karachi Stock Exchange (KSE) 100 index companies.

2: Problem Statement and Objective:

The benchmark KSE-100 index is dependent upon the movement of share prices of major 100 companies and their movement shows bullish or bearish trend of the market. There are several factors involved in driving the benchmark. Sometimes the downward trend prevails despite the attractiveness in equity valuations that judges the market fundamentals. The excess return of the security or a fund relative to the return of the benchmark index is a security’s/fund’s alpha. The objective of the study is to investigate the effect of stock return on the index returns for KSE 100 index companies during January 1, 2007 - June 30, 2010. The following hypothesis has been constructed for the study:

H₀: Companies do not bounce back from bearish to bullish trend because of their alpha risk management.

H₁: Companies do not bounce back from bearish to bullish trend because of their alpha risk management.

3: Methodology:

Out of the top 100 companies of KSE 100 index 26 companies have been selected on the basis of more than two million average daily sales volumes from 1st January, 2007 till 30th June, 2010. The period is divided into 3 sub periods to analyze the market and specific stocks: peak, crisis and reversal periods. Daily open, high, low and close of the company’s share prices and volume data and KSE-100 index data has been obtained from Karachi Stock Exchange
By using data alpha, beta, variance and co variance are calculated for 26 companies to measure the risk involved in investment. On the basis of beta, regression is carried out for the 8 company’s stocks because these stocks moved along the index while others did not recover during the reversal trend. To test the hypothesis, the following model was constructed:

\[ y = bx + \varepsilon \]

Where:
- \( y \) = index return
- \( b \) = beta
- \( x \) = stock return

3.1: Selected Companies

The following 26 companies has been selected out of 100 index companies, based on the above 2 million average sales volumes from January 1, 2007 till June 30, 2010.
<table>
<thead>
<tr>
<th>S.No</th>
<th>Symbol</th>
<th>Company Name</th>
<th>Avg Volume in million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OGDC</td>
<td>Oil &amp; Gas Development company</td>
<td>10.21</td>
</tr>
<tr>
<td>2</td>
<td>AICL</td>
<td>Adamjee Insurance Co. Ltd.</td>
<td>2.35</td>
</tr>
<tr>
<td>3</td>
<td>AKBL</td>
<td>Askari Bank Ltd</td>
<td>2.85</td>
</tr>
<tr>
<td>4</td>
<td>ANL</td>
<td>Azgard Nine Ltd.</td>
<td>3.52</td>
</tr>
<tr>
<td>5</td>
<td>ATRL</td>
<td>Attock Refinery Ltd.</td>
<td>2.15</td>
</tr>
<tr>
<td>6</td>
<td>BAFL</td>
<td>Bank Al-Falah Limited</td>
<td>6.65</td>
</tr>
<tr>
<td>7</td>
<td>BOP</td>
<td>Bank Of Punjab Limited.</td>
<td>6.21</td>
</tr>
<tr>
<td>8</td>
<td>DGKC</td>
<td>D.G Khan Cement Co.</td>
<td>8.12</td>
</tr>
<tr>
<td>9</td>
<td>ENGRO</td>
<td>Engro Corporation Limited</td>
<td>3.52</td>
</tr>
<tr>
<td>10</td>
<td>FCCL</td>
<td>Fauji Cement Company Ltd.</td>
<td>3.10</td>
</tr>
<tr>
<td>11</td>
<td>FFBL</td>
<td>Fauji Fertilizer Bin Qasim</td>
<td>6.63</td>
</tr>
<tr>
<td>12</td>
<td>HUBC</td>
<td>Hub Power Company Limited</td>
<td>2.83</td>
</tr>
<tr>
<td>13</td>
<td>JSCL</td>
<td>Jahangir Siddiqui Co.Ltd.</td>
<td>4.67</td>
</tr>
<tr>
<td>14</td>
<td>LOTPTA</td>
<td>Lotte Pakistan PTA Ltd.</td>
<td>6.03</td>
</tr>
<tr>
<td>15</td>
<td>LPCL</td>
<td>Lafarge Pakistan Cement Ltd.</td>
<td>2.18</td>
</tr>
<tr>
<td>16</td>
<td>MCB</td>
<td>MCB Bank Limited</td>
<td>3.42</td>
</tr>
<tr>
<td>17</td>
<td>NBP</td>
<td>National Bank Of Pakistan</td>
<td>6.96</td>
</tr>
<tr>
<td>18</td>
<td>NIB</td>
<td>NIB Bank Limited</td>
<td>5.11</td>
</tr>
<tr>
<td>19</td>
<td>NML</td>
<td>Nishat Mills Ltd</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>AHSL</td>
<td>Arif Habib Sec Ltd</td>
<td>7.26</td>
</tr>
<tr>
<td>21</td>
<td>POL</td>
<td>Pakistan Oilfields Ltd.</td>
<td>3.94</td>
</tr>
<tr>
<td>22</td>
<td>PPL</td>
<td>Pak Petroleum Ltd.</td>
<td>4.2</td>
</tr>
<tr>
<td>23</td>
<td>PTC</td>
<td>Pakistan Telecommunication</td>
<td>6.3</td>
</tr>
<tr>
<td>24</td>
<td>TRG</td>
<td>TRG Pakistan</td>
<td>6.7</td>
</tr>
<tr>
<td>25</td>
<td>WTL</td>
<td>World Call Telecom</td>
<td>3.99</td>
</tr>
<tr>
<td>26</td>
<td>LUCK</td>
<td>Lucky Call Telecom</td>
<td>6.77</td>
</tr>
</tbody>
</table>
4: Results:

The following table shows selected 26 companies’ average free float, Jensen’s Alpha, Beta, variance, covariance, risk adjusted alpha and standard deviation calculated from January 1, 2007 till June 30, 2010.

<table>
<thead>
<tr>
<th>Free Float</th>
<th>Jensen’s Alpha (%)</th>
<th>Beta</th>
<th>Variance (%)</th>
<th>Covariance (%)</th>
<th>Alpha Risk Adjusted</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>629.72</td>
<td>14.64</td>
<td>50.0</td>
<td>1.12</td>
<td>0.04%</td>
<td>0.03%</td>
<td>22.59</td>
</tr>
<tr>
<td>74.22</td>
<td>60.00</td>
<td>-27.2</td>
<td>1.28</td>
<td>0.10%</td>
<td>0.03%</td>
<td>(5.51)</td>
</tr>
<tr>
<td>267.81</td>
<td>41.67</td>
<td>-68.2</td>
<td>1.18</td>
<td>0.10%</td>
<td>0.03%</td>
<td>(14.02)</td>
</tr>
<tr>
<td>292.08</td>
<td>65.00</td>
<td>-28.8</td>
<td>1.24</td>
<td>0.12%</td>
<td>0.03%</td>
<td>(4.64)</td>
</tr>
<tr>
<td>29.85</td>
<td>35.00</td>
<td>-64.3</td>
<td>1.30</td>
<td>0.11%</td>
<td>0.03%</td>
<td>(11.82)</td>
</tr>
<tr>
<td>674.58</td>
<td>50.00</td>
<td>-58.7</td>
<td>1.31</td>
<td>0.09%</td>
<td>0.03%</td>
<td>(12.13)</td>
</tr>
<tr>
<td>249.81</td>
<td>47.24</td>
<td>-85.9</td>
<td>1.31</td>
<td>0.13%</td>
<td>0.03%</td>
<td>(13.00)</td>
</tr>
<tr>
<td>152.12</td>
<td>41.67</td>
<td>-56.9</td>
<td>1.40</td>
<td>0.09%</td>
<td>0.04%</td>
<td>(12.61)</td>
</tr>
<tr>
<td>114.71</td>
<td>35.00</td>
<td>-28.5</td>
<td>1.22</td>
<td>0.07%</td>
<td>0.03%</td>
<td>8.66</td>
</tr>
<tr>
<td>381.31</td>
<td>35.00</td>
<td>-66.7</td>
<td>1.21</td>
<td>0.13%</td>
<td>0.03%</td>
<td>(10.49)</td>
</tr>
<tr>
<td>326.94</td>
<td>35.00</td>
<td>-29.1</td>
<td>1.08</td>
<td>0.06%</td>
<td>0.03%</td>
<td>9.56</td>
</tr>
<tr>
<td>752.15</td>
<td>45.00</td>
<td>56.2</td>
<td>0.85</td>
<td>0.05%</td>
<td>0.02%</td>
<td>22.96</td>
</tr>
<tr>
<td>419.81</td>
<td>35.00</td>
<td>-35.3</td>
<td>1.43</td>
<td>0.27%</td>
<td>0.04%</td>
<td>(2.65)</td>
</tr>
<tr>
<td>378.55</td>
<td>25.00</td>
<td>77.9</td>
<td>1.44</td>
<td>0.27%</td>
<td>0.04%</td>
<td>5.74</td>
</tr>
<tr>
<td>326.16</td>
<td>25.00</td>
<td>-71.0</td>
<td>1.39</td>
<td>0.25%</td>
<td>0.03%</td>
<td>(5.62)</td>
</tr>
<tr>
<td>342.10</td>
<td>45.00</td>
<td>16.1</td>
<td>1.36</td>
<td>0.08%</td>
<td>0.03%</td>
<td>3.91</td>
</tr>
<tr>
<td>318.21</td>
<td>25.00</td>
<td>-37.7</td>
<td>1.28</td>
<td>0.08%</td>
<td>0.03%</td>
<td>(0.22)</td>
</tr>
<tr>
<td>1,010.93</td>
<td>25.00</td>
<td>-84.6</td>
<td>1.50</td>
<td>0.22%</td>
<td>0.04%</td>
<td>(7.82)</td>
</tr>
<tr>
<td>121.24</td>
<td>34.48</td>
<td>-39.7</td>
<td>1.37</td>
<td>0.09%</td>
<td>0.03%</td>
<td>(9.06)</td>
</tr>
<tr>
<td>112.50</td>
<td>30.00</td>
<td>-9.5</td>
<td>1.41</td>
<td>0.16%</td>
<td>0.04%</td>
<td>(1.21)</td>
</tr>
<tr>
<td>107.92</td>
<td>45.62</td>
<td>-3.2</td>
<td>1.21</td>
<td>0.06%</td>
<td>0.03%</td>
<td>(1.02)</td>
</tr>
<tr>
<td>206.22</td>
<td>20.71</td>
<td>37.5</td>
<td>1.10</td>
<td>0.06%</td>
<td>0.03%</td>
<td>13.39</td>
</tr>
<tr>
<td>584.61</td>
<td>15.49</td>
<td>-44.8</td>
<td>1.12</td>
<td>0.06%</td>
<td>0.03%</td>
<td>(14.64)</td>
</tr>
<tr>
<td>327.58</td>
<td>85.00</td>
<td>-48.7</td>
<td>1.62</td>
<td>0.37%</td>
<td>0.04%</td>
<td>(2.63)</td>
</tr>
<tr>
<td>301.20</td>
<td>35.00</td>
<td>-68.8</td>
<td>1.47</td>
<td>0.21%</td>
<td>0.04%</td>
<td>(0.76)</td>
</tr>
<tr>
<td>129.35</td>
<td>40.00</td>
<td>16.1</td>
<td>1.26</td>
<td>0.07%</td>
<td>0.03%</td>
<td>4.34</td>
</tr>
</tbody>
</table>

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4.1: Periods

After collecting the required data for analysis, the period is divided into 3 sub periods to analyze the market performance and specific stocks. These periods are:

1. **January 2007 to June 2008**

   The period from January 2007 to June 2008 showed a bullish trend when the share prices were moving in upward direction and KSE-100 index reached an all time high 15,655 in April 2008.

2. **July 2008 to December 2008**

   The period from July 2008 to December 2008 showed a trend when the market was in crisis and share prices were falling and setting a downward trend. During this period a floor was imposed on KSE-100 by KSE management at 9,145 which prevailed from mid August 2008 to December 2008. This period is called a period of ‘crisis’ for the market.

3. **January 2009 to June 2010**

   The period from January 2009 to June 2010 showed a recovery trend when the share prices recovered. A massive fall in index was also witnessed during this period when the index came down to the lowest at 4,815 in January 2009 but then the market showed a snap recovery and again the share prices recovered.

4.2: Beta

Adamjee Insurance Company (AICL) had a beta of 1.28 during the full period from January 2007 to June 2008. However, its beta declined by just 2 basis points to 1.26 if measured during the upward trend which from January 2007 to June 2008. This was the peak period for AICL when it showed the beta of 1.26 as its price touched the maximum of Rs 431 along with the movement in KSE-100 index. The
period from July 2008 to December 2008 shows a trend when the market was in crisis and share prices were falling and setting a downward trend. During this period a floor was imposed on KSE-100 by KSE management at 9,145 which prevailed from mid August 2008 to December 2008. This period is called a period of ‘crisis’ for the market.

During the crisis period, beta of AICL fell to by 11 basis points to 1.14 from 1.26 which shows that the stock did not fall as much as the index while following the market trend. This means that AICL is less prone to negative sentiments of the overall market and moves on its own fundamentals. Due to this snap recovery the beta of several stocks increased from the beta of full cycle period. The beta of AICL during this period increased to 1.35 from the beta of 1.28 during the full cycle. Similarly, the beta of OGDC increased to 1.18 from 1.12 and that of Askari Bank increased to 1.28 from 1.18 of full period.

This pattern is followed by the 26 major stocks which are selected amongst the 100 companies as shown in the following table:
### Alpha Risk Management in KSE 100 Index Companies

**4.3: Alpha**

Alpha is the abnormal rate of return on a security or portfolio in excess of what would be predicted by an equilibrium model like the capital asset pricing model (CAPM) and compares its risk-adjusted performance to a benchmark index. The excess return of the security or a fund relative to the return of the benchmark index is a security’s/fund’s alpha. During the full cycle (January 2007 to June 2010), LOTPTA has the highest alpha of 78% which shows that the stock provided the highest return above its required rate of return. The stock appreciated

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Beta</th>
<th>Full Cycle Jan’07 to June’10</th>
<th>Peak Jan’07 to June’08</th>
<th>Crisis July’08 to Dec’08</th>
<th>Reversal Jan’09 to June’10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OGDC</td>
<td>1.12</td>
<td>1.28</td>
<td>0.99</td>
<td>1.18</td>
</tr>
<tr>
<td>2</td>
<td>AICL</td>
<td>1.28</td>
<td>1.26</td>
<td>1.14</td>
<td>1.35</td>
</tr>
<tr>
<td>3</td>
<td>AKBL</td>
<td>1.18</td>
<td>1.34</td>
<td>0.96</td>
<td>1.28</td>
</tr>
<tr>
<td>4</td>
<td>ANL</td>
<td>1.24</td>
<td>1.15</td>
<td>0.88</td>
<td>0.73</td>
</tr>
<tr>
<td>5</td>
<td>ATRL</td>
<td>1.3</td>
<td>1.3</td>
<td>1.19</td>
<td>1.41</td>
</tr>
<tr>
<td>6</td>
<td>ENGRO</td>
<td>1.22</td>
<td>1.29</td>
<td>1.15</td>
<td>1.22</td>
</tr>
<tr>
<td>7</td>
<td>HUBCO</td>
<td>0.85</td>
<td>1.03</td>
<td>0.78</td>
<td>0.83</td>
</tr>
<tr>
<td>8</td>
<td>LUCK</td>
<td>1.26</td>
<td>1.25</td>
<td>1.22</td>
<td>1.31</td>
</tr>
<tr>
<td>9</td>
<td>DGKC</td>
<td>1.4</td>
<td>1.41</td>
<td>1.36</td>
<td>1.41</td>
</tr>
<tr>
<td>10</td>
<td>AHSL</td>
<td>1.41</td>
<td>1.46</td>
<td>1.4</td>
<td>1.38</td>
</tr>
<tr>
<td>11</td>
<td>NBP</td>
<td>1.28</td>
<td>1.25</td>
<td>1.41</td>
<td>1.26</td>
</tr>
<tr>
<td>12</td>
<td>TRG</td>
<td>1.62</td>
<td>1.93</td>
<td>1.54</td>
<td>1.46</td>
</tr>
<tr>
<td>13</td>
<td>BAFL</td>
<td>1.31</td>
<td>1.37</td>
<td>1.16</td>
<td>1.29</td>
</tr>
<tr>
<td>14</td>
<td>FFBL</td>
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<td>1.23</td>
<td>0.99</td>
<td>0.98</td>
</tr>
<tr>
<td>15</td>
<td>PTC</td>
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<td>1.11</td>
<td>1.06</td>
<td>1.16</td>
</tr>
<tr>
<td>16</td>
<td>BOP</td>
<td>1.31</td>
<td>1.31</td>
<td>0.81</td>
<td>1.1</td>
</tr>
<tr>
<td>17</td>
<td>LOTPTA</td>
<td>1.44</td>
<td>1.71</td>
<td>1.13</td>
<td>1.11</td>
</tr>
<tr>
<td>18</td>
<td>NIB</td>
<td>1.6</td>
<td>1.9</td>
<td>1.32</td>
<td>1.34</td>
</tr>
<tr>
<td>19</td>
<td>JSCL</td>
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<td>1.12</td>
<td>1.79</td>
<td>1.46</td>
</tr>
<tr>
<td>20</td>
<td>PPL</td>
<td>1.1</td>
<td>1.14</td>
<td>1.35</td>
<td>0.98</td>
</tr>
<tr>
<td>21</td>
<td>NML</td>
<td>1.37</td>
<td>1.36</td>
<td>1.43</td>
<td>1.32</td>
</tr>
<tr>
<td>22</td>
<td>WTL</td>
<td>1.47</td>
<td>0.99</td>
<td>0.8</td>
<td>0.79</td>
</tr>
<tr>
<td>23</td>
<td>POL</td>
<td>1.21</td>
<td>1.08</td>
<td>1.48</td>
<td>1.17</td>
</tr>
<tr>
<td>24</td>
<td>MCB</td>
<td>1.36</td>
<td>1.31</td>
<td>1.41</td>
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<tr>
<td>25</td>
<td>FCCL</td>
<td>1.21</td>
<td>1.33</td>
<td>1.09</td>
<td>1.06</td>
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<tr>
<td>26</td>
<td>LPCL</td>
<td>1.39</td>
<td>1.55</td>
<td>1.09</td>
<td>1.03</td>
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</table>
by 71% during the period but since, the benchmark KSE-100 index gave the negative return of 3.5% its alpha increased to 78%. There are 8 stocks out of total 26 stocks other than LOTPTA that gave positive alpha. ATRL follows LOTPTA with alpha of 64% followed by HUBC and OGDC with 56% and 50% respectively. Bank of Punjab has shown the lowest alpha of -86% as the stock declined to Rs 10.78 on June 30, 2010 from Rs 101.25 on December 31, 2006. 17 stocks out of our sample of 26 have negative alpha varying from -85% to -3% whereas the remaining 9 stocks have positive alpha from 16% to 78%. This shows that only a few stocks gave excess return above their required rate of return. The alpha declines more if any stock gives negative return because the benchmark KSE-100 index has given negative return of 3.4% during the period under review.

4.4: Standard Deviation

Standard Deviation (SD) is a statistical measurement that sheds light on historical volatility. For example, a volatile stock will have a high standard deviation while the deviation of a stable blue chip stock will be lower. A large dispersion tells us how much the return on the fund or security is deviating from the expected normal returns. During the full cycle period, the SD of sample companies varies from 2.2% (OGDC) to 18.5% (TRG). TRG has the highest standard deviation of 18.5% and stock has given the absolute return of -53%. This shows that TRG has shown large fluctuations during this period and deviated largely from its normal daily returns. TRG is followed by LOTPTA and JSCL with SD of 13.6% and 13.3% respectively. LOTPTA appreciated 65% during the full cycle period (from Rs 4.90 to Rs 8.06) whereas JSCL declined from Rs 158.10 to Rs 12.64 per share.

These companies provided return on the basis of fundamentals. LOTPTA posted loss of Rs 0.04 per share in 2007 but posted healthy profits in 2009 which increased to Rs 2.23 in 2009. This performance is reflected in the stock returns. As far JSCL is
concerned, it posted net profit of Rs 2.2 billion (EPS: Rs 2.93) in 2007 but net loss of Rs 14.4 billion (LPS: Rs 18.88) in 2009. Heavy movements and inconsistency in the bottom line of these companies also resulted in higher Standard Deviation. TRG and LOTPTA are small cap stocks. Since, their share prices are below Rs 20.00 and their upper and lower circuit breakers have limit of Re 1.00 per share. Prices of both these stocks were around Rs 8.00 and lower circuit makes a change of 14% and therefore, the stocks showed heavy fluctuation in returns and also a reason for large Standard Deviation.

On the other side, OGDC and HUBC has SD of 2.2% and 2.4% respectively which means both these stocks deviated less from their normal returns. Though OGDC and HUBC gave positive return of 22% and 18% respectively during the full cycle period, their up and down movements are less volatile. Both these stocks have a very large market capitalization and seldom hit their upper and lower circuit breakers; therefore they do not fluctuate heavily from their normal returns.

4.5 Regression

The study used regression analysis to test the hypothesis for the following 8 stocks because these stocks moved along with the index while others did not recover during the reversal trend. This shows the influence of Stock return (independent variable) on Index return (dependent variable).

**Attock Refinery Ltd (ATRL):**

The value of Adjusted R square is 39% and the probability of F statistic is 0.00 which indicates that there is a significant effect at 5% significance level. On the other hand D W value is 1.67 which shows that there is no autocorrelation in the data. To further test the autocorrelation unit root test carried out which proves that there is no autocorrelation because t statistics value is -23.8, higher than the critical values, and probability is 0.00. It provides the following empirical model

\[
Y = -0.0001 + 0.300X
\]
**Bank Al-Falah Limited (BAFL):**

The value of Adjusted R square is 44.5% and the probability of F statistic is 0.00 which indicates that there is a significant effect at 5% significance level. The D W value is 1.88 which shows that there is no autocorrelation in the data. It provides the following empirical model

\[ Y=0.0006+0.353X \]

**Engro Corporation Limited (ENGRO):**

The value of Adjusted R square is 56.7% and the probability of F statistic is 0.00 which indicates that there is a significant effect at 5% significance level. On the other hand D W value is 1.8 which shows that there is no autocorrelation in the data. It provides the following empirical model

\[ Y=-0.00011+0.465X \]

**Hub Power Company Limited (HUBCO):**

The value of Adjusted R square is 36.7% and the probability of F statistic is 0.00 which indicates that there is a significant effect at 5% significance level. The D W value is 1.6 which shows that there is no autocorrelation in the data. To further test the autocorrelation unit root test carried out which proves that there is no autocorrelation because t statistics value is -23, higher than the critical values, and probability is 0.00. It provides the following empirical model

\[ Y=-0.00011+0.434X \]

**Lucky Cement Limited (LUCK):**

The value of R square is 54% and the probability of F statistic is 0.00 which indicates that there is a significant effect at 5% significance level. The D W value is 1.88 which shows that there is no autocorrelation in the data. It provides the following empirical model

\[ Y=-0.00011+0.428X \]
Oil & Gas Development Company (OGDC):

The value of Adjusted R square is 54.7% and the probability of F statistics is 0.00 which indicates that there is a significant effect at 5% significance level. The D W value is 1.88 which shows that there is no autocorrelation in the data. It provides the following empirical model:

\[ Y=0.00036+0.390X \]

Askari Bank Ltd (AKBL):

The probability of F statistics is 0.00 which indicates that there is significant effect at 5% significance level. On the other hand D W value is 1.8 which shows that there is no autocorrelation in the data. It provides the following empirical model:

\[ Y=0.0001+0.1014X \]

Adamjee Insurance Co. Ltd (AICL):

The probability of F statistic is 0.02 which indicates that there is a significant effect at 5% significance level. On the other hand D W value is 1.7 which shows that there is no autocorrelation in the data. To further test the autocorrelation unit root test carried out which proves that there is no autocorrelation because t statistics value is -24.2, higher than the critical values, and probability is 0.00. It provides the following empirical model:

\[ Y=0.00008+0.039X \]

5: Conclusion

The beta of 8 companies reveals that stability of return movement of stocks against market movement. It shows that these stocks moved along with the benchmark index. When the trend is bearish, the percentage decline in the share prices is almost equal to the percentage decline of the index. An example is Adamjee Insurance (AICL) as its beta for full cycle is 1.28 and it is moving along with the...
index in all three periods but on the other hand beta of some companies during the reversal period (when the market was in recovering phase) declined from the beta of crisis period. These stocks did not recover with the market and may be called as ‘laggards’. The regression analysis shows that the hypothesis is rejected, some stocks recover when the market bounced back because of alpha risk management. The ability and inability of stocks to recover is more related to their own fundamental drivers like EPS and revenue growth but during crises individual stocks reacted from across the board selling pressure where no positive and healthy fundamentals work. There are two chief reasons for some stocks to recover earlier than others. Either those stocks massively fall during crises than justified by rational investors or their core fundamentals improved during crises period.
References:


### Appendix

**Attock Refinery Ltd (ATRL)**

Dependent Variable: Y  
Method: Least Squares

Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
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<td>0.000443</td>
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<td>0.013377</td>
<td>22.47923</td>
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R-squared: 0.390713  
Mean dependent var: 7.47E-05  
S.D. dependent var: 0.015939  
S.E. of regression: 0.012449  
Akaike info criterion: -5.931797  
Schwarz criterion: -5.919969  
Log likelihood: 2345.060  
F-statistic: 505.3160  
Prob(F-statistic): 0.000000
### Research

**Alpha Risk Management In KSE 100 Index Companies**

**Null Hypothesis:** RESID1 has a unit root  
**Exogenous:** Constant  
**Lag Length:** 0 (Automatic based on SIC, MAXLAG=20)

<table>
<thead>
<tr>
<th>Augmented Dickey-Fuller test statistic</th>
<th>t-Statistic</th>
<th>Prob.*</th>
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<tr>
<td>-23.83805</td>
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</table>

**Test critical values:**  

- **1% level:** -3.438412  
- **5% level:** -2.864988  
- **10% level:** -2.568661


**Augmented Dickey-Fuller Test Equation**  
**Dependent Variable:** D(RESID1)  
**Method:** Least Squares  
**Sample (adjusted):** 2 790  
**Included observations:** 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tr>
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<td>Log likelihood</td>
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<td>Durbin-Watson stat</td>
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<td>Mean dependent var</td>
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<td>S.D. dependent var</td>
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<td>Prob(F-statistic)</td>
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</table>
**Bank Al-Falah Limited (BAFL)**

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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</tbody>
</table>

R-squared: 0.445169  
Mean dependent var: 8.86E-05  
S.D. dependent var: 0.016287  
Akaike info criterion: -5.982201  
Schwarz criterion: -5.970373  
Log likelihood: 2364.969  
F-statistic: 632.2531  
Prob(F-statistic): 0.000000
Null Hypothesis: RESID1 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
<thead>
<tr>
<th>Augmented Dickey-Fuller test statistic</th>
<th>t-Statistic</th>
<th>Prob.*</th>
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<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-26.54770</td>
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Test critical values:
- 1% level: -3.438412
- 5% level: -2.864988
- 10% level: -2.568661


Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID1)
Method: Least Squares
Sample (adjusted): 2,790
Included observations: 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<td>0.9899</td>
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R-squared    0.472443  Mean dependent var 8.96E-06
Adjusted R-squared 0.471772  S.D. dependent var 0.016607
S.E. of regression 0.012128  Akaike info criterion -5.984123
Sum squared resid 0.115752  Schwarz criterion -5.972264
Log likelihood 2362.737  F-statistic 704.7806
Durbin-Watson stat 2.004052  Prob(F-statistic) 0.000000
**Engro Corporation Limited (ENGRO)**

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tr>
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R-squared | 0.567918  | Mean dependent var | 7.47E-05  |
Adjusted R-squared | 0.567369  | S.D. dependent var  | 0.015939  |
S.E. of regression | 0.010484  | Akaike info criterion | -6.275469 |
Sum squared resid   | 0.086607  | Schwarz criterion    | -6.263641 |
Log likelihood      | 2480.810  | F-statistic          | 1035.726  |
Durbin-Watson stat  | 1.807293  | Prob(F-statistic)    | 0.000000  |
Null Hypothesis: RESID1 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
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<tr>
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<td>Augmented Dickey-Fuller test statistic</td>
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<td>Test critical values:</td>
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<tr>
<td>1% level</td>
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<td>5% level</td>
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<tr>
<td>10% level</td>
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Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID1)
Method: Least Squares
Sample (adjusted): 2 790
Included observations: 789 after adjustments

<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
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R-squared        0.451829  Mean dependent var 3.37E-06
Adjusted R-squared 0.451132  S.D. dependent var 0.014094
S.E. of regression 0.010441  Akaike info criterion -6.283533
Sum squared resid  0.085802  Schwarz criterion -6.271693
Log likelihood    2480.854  F-statistic 648.6826
Durbin-Watson stat 2.009773  Prob(F-statistic) 0.000000
Hub Power Company Limited (HUBCO)

Dependent Variable: Y
Method: Least Squares

Sample: 1 790
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<td>0.434380</td>
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R-squared: 0.367660
Adjusted R-squared: 0.366857
Mean dependent var: 7.47E-05
S.D. dependent var: 0.015939
S.E. of regression: 0.012683
Akaike info criterion: -5.894658
Schwarz criterion: -5.882830
Log likelihood: 2330.390
F-statistic: 458.1644
Prob(F-statistic): 0.000000
Null Hypothesis: RESID1 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
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<tr>
<td>Augmented Dickey-Fuller test statistic</td>
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Test critical values:
- 1% level: -3.438412
- 5% level: -2.864988
- 10% level: -2.568661


Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID1)
Method: Least Squares
Sample (adjusted): 2 790
Included observations: 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
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<th>t-Statistic</th>
<th>Prob.</th>
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R-squared: 0.402029
Adjusted R-squared: 0.401269
S.E. of regression: 0.012444
Sum squared resid: 0.121871
Log likelihood: 2342.416
Durbin-Watson stat: 2.020770

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**Lucky Cement Limited (LUCK)**

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
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<th>t-Statistic</th>
<th>Prob.</th>
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<tbody>
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<td>X</td>
<td>0.428308</td>
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<td>30.53692</td>
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</table>

R-squared 0.541995  
Adjusted R-squared 0.541413  
S.E. of regression 0.014026  
Sum squared resid 0.091803  
Log likelihood 2457.796  
Durbin-Watson stat 1.882695

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Null Hypothesis: RESID1 has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
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<tr>
<th>Augmented Dickey-Fuller test statistic</th>
<th>t-Statistic</th>
<th>Prob.*</th>
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<tr>
<td>1% level</td>
<td>-3.438412</td>
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<tr>
<td>5% level</td>
<td>-2.864988</td>
<td></td>
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<tr>
<td>10% level</td>
<td>-2.568661</td>
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Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(RESID1)  
Method: Least Squares  
Sample (adjusted): 2 790  
Included observations: 789 after adjustments

<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
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<tr>
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R-squared 0.470701  Mean dependent var -1.99E-06  
Adjusted R-squared 0.470029  S.D. dependent var 0.014810  
S.E. of regression 0.010782  Akaike info criterion -6.219429  
Sum squared resid 0.091482  Schwarz criterion -6.207590  
Log likelihood 2455.565  F-statistic 699.8731  
Durbin-Watson stat 2.001175  Prob(F-statistic) 0.000000
### Oil & Gas Development Company (OGDC)

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
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<th>Prob.</th>
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R-squared: 0.548118  
Mean dependent var: 8.70E-05  
Adjusted R-squared: 0.547544  
S.D. dependent var: 0.015940  
S.E. of regression: 0.010722  
Akaike info criterion: -6.230501  
Schwarz criterion: -6.218673  
Log likelihood: 2463.048  
F-statistic: 955.8176  
Prob(F-statistic): 0.000000  
Durbin-Watson stat: 1.883537
Null Hypothesis: RESID1 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
<thead>
<tr>
<th>Augmented Dickey-Fuller test statistic</th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-26.46537</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

Test critical values:
- 1% level: -3.438412
- 5% level: -2.864988
- 10% level: -2.568661


Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID1)
Method: Least Squares
Sample (adjusted): 2 790
Included observations: 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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</thead>
<tbody>
<tr>
<td>RESID1(-1)</td>
<td>-0.941802</td>
<td>0.035586</td>
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<tr>
<td>C</td>
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<td>0.000381</td>
<td>-0.005234</td>
<td>0.9958</td>
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</table>

R-squared: 0.470895
Mean dependent var: 4.52E-06
Adjusted R-squared: 0.470222
S.D. dependent var: 0.014715
S.E. of regression: 0.010711
Akaike info criterion: 6.232644
Sum squared resid: 0.090281
Schwarz criterion: 6.220804
Log likelihood: 2460.778
F-statistic: 700.4160
Durbin-Watson stat: 1.997229
Prob(F-statistic): 0.000000
# Alpha Risk Management In KSE 100 Index Companies

**Askari Bank Ltd (AKBL)**

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
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<tbody>
<tr>
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<td>0.000558</td>
<td>0.179821</td>
<td>0.8573</td>
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<tr>
<td>X</td>
<td>0.101484</td>
<td>0.019721</td>
<td>5.145877</td>
<td>0.0000</td>
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</table>

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
<th>Description</th>
<th>Prob.</th>
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</thead>
<tbody>
<tr>
<td>R-squared</td>
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<td>Mean dependent var</td>
<td>8.11E-05</td>
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<tr>
<td>Adjusted R-squared</td>
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<td>S.E. of regression</td>
<td>0.015686</td>
<td>Akaike info criterion</td>
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<tr>
<td>Sum squared resid</td>
<td>0.193895</td>
<td>Schwarz criterion</td>
<td>-5.457703</td>
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<tr>
<td>Log likelihood</td>
<td>2162.465</td>
<td>F-statistic</td>
<td>26.48005</td>
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<tr>
<td>Durbin-Watson stat</td>
<td>1.820767</td>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
</tr>
</tbody>
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*PAKISTAN BUSINESS REVIEW APRIL 2013*
Null Hypothesis: RESID1 has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
<thead>
<tr>
<th></th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-25.64319</td>
<td>0.0000</td>
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</table>

Test critical values:  
1% level | -3.438412  
5% level | -2.864988  
10% level | -2.568661


Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(RESID1)  
Method: Least Squares  
Sample (adjusted): 2 790  
Included observations: 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESID1(-1)</td>
<td>-0.910425</td>
<td>0.035504</td>
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</tr>
<tr>
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<td>-0.004509</td>
<td>0.9964</td>
</tr>
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</table>

R-squared: 0.455202  
Adjusted R-squared: 0.454510  
S.E. of regression: 0.015633  
Akaike info criterion: -5.476341  
Schwarz criterion: 0.192334  
Prob(F-statistic): 0.000000

PAKISTAN BUSINESS REVIEW APRIL 2013
**Adamjee Insurance Co. Ltd (AICL)**

Dependent Variable: Y  
Method: Least Squares  
Sample: 1 790  
Included observations: 790

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
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<td>0.000578</td>
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<td>X</td>
<td>0.039851</td>
<td>0.018240</td>
<td>2.184864</td>
<td>0.0292</td>
</tr>
</tbody>
</table>

R-squared: 0.006021  
Adjusted R-squared: 0.004760  
S.D. dependent var: 0.016283  
S.E. of regression: 0.016244  
Mean dependent var: 7.59E-05  
Akaike info criterion: -5.399619  
Schwarz criterion: -5.387791  
F-statistic: 4.773632  
Prob(F-statistic): 0.029193  
Durbin-Watson stat: 1.712901  
Prob(F-statistic): 0.029193
Null Hypothesis: RESID1 has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic based on SIC, MAXLAG=20)

<table>
<thead>
<tr>
<th>Augmented Dickey-Fuller test statistic</th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-24.27790</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Test critical values:
- 1% level: -3.438412
- 5% level: -2.864988
- 10% level: -2.568661


Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID1)
Method: Least Squares
Sample (adjusted): 2 790
Included observations: 789 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESID1(-1)</td>
<td>-0.856451</td>
<td>0.035277</td>
<td>-24.27790</td>
<td>0.0000</td>
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<tr>
<td>C</td>
<td>8.90E-08</td>
<td>0.000573</td>
<td>0.000155</td>
<td>0.9999</td>
</tr>
</tbody>
</table>

R-squared 0.428225  Mean dependent var 9.58E-20
Adjusted R-squared 0.427499  S.D. dependent var 0.021260
S.E. of regression 0.016086  Akaike info criterion -5.419167
Sum squared resid 0.203651  Schwarz criterion -5.407328
Log likelihood 2139.861  F-statistic 589.4162
Durbin-Watson stat 2.018830  Prob(F-statistic) 0.000000
COMPARATIVE STUDY OF
SUKUK AND CONVENTIONAL
BOND

Muhammad Ali Shaikh
Institute of Business Finance and Industry,
Karachi, Pakistan

Abstract

One of the latest innovations in Islamic finance industry is Sukuk which is used by governments and corporate business houses to raise resources for financing developmental projects and other needs. Subject to some restrictions it may act as liquidity management instrument and develop project financing capability in Islamic banks. Sukuk is an alternative to conventional bond. It has been adapted from the conventional bond retaining many of its features and terminology making risk of shariah non compliance an important issue.

This distinction that bond holder is a lender while Sukuk holder is an investor and owner of the financed assets, warrants that Sukuk cannot be treated as a straightforward replacement of bond. Instead of reengineering the conventional bond a new product should be designed to deal with the risk of shariah non compliance.

Keywords: Sukuk, Bond, Shariah compliance, Islamic investments, Islamic securitization, asset backed security.

JEL Classification: G120
1. Introduction

Bond being debt of the issuer is serviced out of its cash flow. Sukuk, being an investment of the holder in the assets, is serviced out of the revenue generated by these asset(s). This makes a bond and a Sukuk distinctly different from each other.

Bond is an important part of the investment portfolio of conventional banks. Risk depends, in addition to the nature of the instrument, on the cash flow and credit worthiness of the issuer. Sukuk, on the contrary, being an investment in the assets, is not a financial asset but the scrip represents proportionate ownership of assets in an investment activity and represents investor / investee relationship between the Sukuk holder and the issuer. As joint owners, Sukuk holders assume for a defined period the risk and return associated with cash flows generated by the Sukuk assets.

Therefore, Sukuk holders, as joint owners of assets, must have full ownership rights and must share the income generated by these assets rather than a return in relation to the face value of the instrument they are holding. The asset as well as income derived from these assets should also be Shari’ah compliant. The Sukuk holder is an investor and an issuer is investee, not a debtor and a creditor. This distinction is required as a necessity because a debt instrument cannot be traded for a gain whereas an instrument representing ownership in real assets can be traded for a capital gain.

The basic Islamic contract (such as Ijarah contract) is used to structure Sukuk that determines the type of a Sukuk, the relationship between the issuer and the subscriber and the nature of income generated by the asset. Thus, the type of Sukuk (such as Ijarah Sukuk, Salam Sukuk, Musharakah Sukuk or a hybrid Sukuk with combination of some or all of these assets) will determine the risk of revenue generated. The revenue producing activities must confirm to the rules of original contract forming the basis of Sukuk. Just like murabaha, ijarah and other contracts have some similarities and differences with counterpart conventional products; Sukuk and bonds also have parallel similarities and differences such as pricing, tenure etc. These similarities have made it easier to introduce Sukuk as an
alternative to conventional bonds, as these features are known to the issuers as well as the subscribers but have simultaneously created the problem of maintaining the differences and separate identity of the instrument.

The objective of this paper is to carry out a comparative study to determine the differences in these instruments and the issues involved in maintaining these differences.

2. Literature Review

According to Norman (2005), AAOIFI Shari’ah standard 17 defines the structure of Sukuk making it mandatory that the asset must be Shari’ah compliant and the documentation must demonstrate that the income is derived from the activities of the asset that are *Halal* with complete transparency regarding rights and obligations of parties. Wilson (2004) has described *Sukuk* as Islamic investment certificates that are backed by real underlying assets. He considers that it is a new asset class for the portfolio of a non-Muslim who has conventional bonds in his portfolio to diversify and possibly reduce risk (ibid.).

In Pakistan, most of the issuers are either the government entities or large private sector corporate houses who have issued *Sukuk* to raise funds for their projects and other long term needs. Beginning in 2001 with an amount of Rs 360 million, it reached to over Rs 53 billion in 2007 but declined in 2008 to over Rs 32 billion. In 2009, it was over Rs 33 billion in 9 months (SBP, 2009). Government of Pakistan (GoP) International Ijarah Sukuk, Wapda’s US$134 million Ijarah based Sukuk, Sui Southern Gas Company’s Rs. 2 billion Sukuk are few major public sector issues. In the private sector, Sitara group Al-Zamin Leasing Mudaraba, Sitara peroxide, Engro, Dawood Hercules, Century paper & board mills, Quetta Textiles, Maple Leaf Cement and others issued *Sukuk* to fund their expansion and other requirements (MBL, 2009). According to SBP (June, 2011), the government raised Rs 190 billion in nine months through the GOP Ijarah *Sukuk* based on Jinnah Terminal as the underlying asset. The past experience reflects that these instruments can be used as an important source of resource mobilization. Lower intermediation cost
Comparative Study of *Sukuk* and Conventional Bond Research

has made it an attractive alternative to fund long term financing needs by corporate sector and the governments.

A majority of *Sukuk* is Ijarah based. In most of the issues existing assets are used as *Sukuk* assets even though the proceeds may be used in the construction of new assets. This is due to the compulsion that investors want a return immediately or at least the issuers perceive their attitude as such. Although it should be the case to use this instrument exclusively for new projects thus fulfilling huge needs for infrastructure and project financing, it can also be used for other needs due to the possibility of using existing assets as *Sukuk* assets, which are less desirable from economic efficiency point of view and will not create new assets. However, other structures are also there; for example, in case of Bahrain Monitory Agency, the Salam goods are sold in the market on behalf of the investor which provides a competitive rate of return to the investors (Usmani, 2006). In case of Musharaka based *Sukuk*, such as the Sitara TFC, the holders shared the profits / losses of a particular division of Sitara Chemicals. Principal payment was through progressive purchasing by the issuer based on a comprehensive valuation method. A Takaful reserve was created through contributions of both the issuer as well as the investor to meet exigencies but there was no guarantee by the issuer for the face value of the certificate except in case of negligence/misconduct (Adrees, 1998; Usmani, 2006).

The global picture is even more encouraging. According to IIFM (2005), global *Sukuk* issuances were of the order of US$ 100 million in 2001, US$ 8.5 billion in 2005 and were estimated to rise to US$ 30 billion in 2008. Bahrain Salam *Sukuk*, US $600 million Malaysia *Sukuk* Al Ijarah, US$700 million Qatar *Sukuk*, US$ 800 million SABIC *Sukuk*, PCFC Convertible *Sukuk* are few examples. Some of the issues were listed at that time on the international stock exchanges totalling in excess of US$ 1.5 billion. However, after reaching a figure of US $34.3 billion in 2007 it declined to US$ 14.9 billion in 2008, due to economic slowdown and uncertainty causing a wait-and-see attitude amongst the investors (SBP, 2009). The major regions in 2008, according to SBP (2009), were Malaysia (37%), UAE (36%) and Saudi Arabia (11%). Pakistan had 3% share. The global *Sukuk* market was US $ 197 billion at the end of 2010. (SBP, 2011)
Sukuk is an important part of the investment portfolio of Islamic Banks in Pakistan. A continuous decrease in the resources employed in financing has been largely contributing to generating large liquidity which needs investment avenues which can be seen from the consolidated position of assets (SBP, 2008) in the Islamic Banking Sector in Pakistan:

Table 1: Asset portfolio of Islamic banks in Pakistan 2003-2011
The figures are yearend (December) except 2011

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing-Net</td>
<td>8.6</td>
<td>27.5</td>
<td>45.8</td>
<td>65.6</td>
<td>106.8</td>
</tr>
<tr>
<td>Investments</td>
<td>12</td>
<td>2.0</td>
<td>1.8</td>
<td>7.3</td>
<td>31.0</td>
</tr>
<tr>
<td>Cash, placements &amp; others</td>
<td>3.0</td>
<td>14.6</td>
<td>23.8</td>
<td>46.4</td>
<td>68.1</td>
</tr>
<tr>
<td>Total assets</td>
<td>12.8</td>
<td>44.1</td>
<td>71.4</td>
<td>119.3</td>
<td>205.9</td>
</tr>
<tr>
<td>Financing %</td>
<td>67</td>
<td>62</td>
<td>64</td>
<td>55</td>
<td>52</td>
</tr>
<tr>
<td>Invest %</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>15</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011 (June)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing-Net</td>
<td>144</td>
<td>154</td>
<td>180</td>
<td>189</td>
</tr>
<tr>
<td>Investments</td>
<td>42</td>
<td>72</td>
<td>158</td>
<td>231</td>
</tr>
<tr>
<td>Cash, placements &amp; others</td>
<td>90</td>
<td>140</td>
<td>139</td>
<td>140</td>
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<tr>
<td>Total assets</td>
<td>276</td>
<td>366</td>
<td>477</td>
<td>560</td>
</tr>
<tr>
<td>Financing %</td>
<td>52</td>
<td>42</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td>Invest %</td>
<td>15</td>
<td>20</td>
<td>33</td>
<td>41</td>
</tr>
</tbody>
</table>
The asset portfolio of Islamic Banks in Pakistan (SBP, June 2010 and June 2011) shows a large portion in investments which was larger than the financing business in June 2011. Sukuk forms a major component of the investment portfolio. Placement with banks through Commodity Murabahah (CM) is also an increasingly important element of the asset portfolio. The GOP ijarah Sukuk has been the main contributor in raising Islamic banks’ investments in government securities. According to SBP (June, 2011), Rs 190 billion were raised during the last nine months. Sukuk will get more importance keeping in view the demand for funds and excess liquidity position with Islamic banks. Investments in Sukuk may also develop project financing capability and open up this area in future, a profitable area which remains largely untapped after the exit of DFIs from the scene. Once developed and with sufficient capacity building achieved, the use of participatory methods may be easier which is the long term goal.

As discussed earlier the tendency for keeping a similarity with bonds which is apparently a marketing requirement has introduced issues regarding shariah compliance. Usmani (2008) argued that many Sukuk are not Shariah-compliant in essence, as they were structured too much like conventional bonds. His arguments are:

i) The feature of Sukuk holder’s ownership of real assets that generate income to be distributed to Sukuk holders is not explicitly present in some structures.

ii) Hybrid Sukuk structures involving a mixture of Ijarah and Murabaha assets may raise questions of sale of debt.

iii) In some structures regular distributions to Sukuk holders are tied with market interest rates. If the actual earning is more than the interest rate, the difference is paid to the manager as incentive, and in the reverse case of fewer earnings, the manager gives a loan which is either recovered from subsequent earnings or adjusted in final repurchase of the assets at the time of redemption. This eliminates the relationship with the actual profits earned by the enterprise.
iv) The binding promise to purchase the assets at a price equal to the original price paid at the time of purchasing it practically guarantees the principal.

Usmani (2008) has argued at length to prove that this cannot be allowed and these characteristics will render the Sukuk structure non Shari’ah compliant. Thomas and Becic (2008) have also put forward similar arguments.

In addition, Khan (2010) has termed most issues as corporate or public debt issues. Despite some of the structural problem the popularity of the instrument is increasing. Quoting Parker (2006), Khan (2010) has reported that almost all Sukuk offerings are heavily oversubscribed which led to the creation of Dow Jones Citigroup Sukuk Index to track Sukuk issues and serve as benchmark performance index for shariah compliant fixed income investments. Quoting Fitch rating, Standard & Poor’s and Moody’s, he has opined that asset sales underlying most Sukuk are not validly transferred and therefore not rated separately from the issuer (ibid.). This would mean that it is treated as a debt of the issuer. Restrictions regarding acquiring of ownership in some territories could also create problems in the transfer of ownership which could prove legal title of the investors. However, as Dualleh (1998) has explained, ownership does not necessarily mean registered title. It could be a collection of some attributes which would enable the investor to step into the shoes of owners and perform duties related to ownership. These could also be rights of access or taking over operations.

Dualleh (1998) has explained three possible structures for securitization in general — pass through, asset backed bonds, and pay through. A pass through gives ownership of assets of the issuer to the holders of the security and removes these assets from the balance sheet of the issuer and is not a debt of the issuer. As described by Dualleh (1998), the originator services the portfolio, makes collections, passes them on to the investors minus a service fee. The asset backed bond (ABB) is a debt of the issuer collateralized by a portfolio of assets which remains on the balance sheet of the issuer and the ABB itself is reported as a liability. A pay through bond combines the features of pass through and ABB. The bond is collateralized but the cash flows from the assets are dedicated to
service bonds (the cash flows would, however, belong to the issuer who owns these assets). Duaileh (1998) concludes that the first structure i.e. the pass through is closest to satisfying the exact interpretations of Islamic principles.

Duaileh (1998) further points out that like conventional bonds, Sukuk also needs developed secondary markets which is not the case in many countries where Sukuk issues originate resulting in low trading volumes and higher marketability risk. This will restrict Sukuk transactions to countries having developed capital markets and regulatory framework like OECD countries or gulf and Malaysian regions. In other countries, it will be limited to self-contained projects supported by sovereign guarantees. He further contends that internationally developed markets will be the natural destination for listing and trading of Sukuk issues in future. The infrastructure development is a top priority area for the IFSI.

3. Methodology

In order to conduct a comparative study of the two products, the problems relating to current structure and issues in the development of Sukuk as an alternative source of funds were translated into the following hypothesis:

Hypothesis: Sukuk looks like a conventional bond and is similar to it.

A comparative study of the contracts, structures, practices and related documentation pertaining to Sukuk and conventional bond has been designed to accept or reject the hypothesis. Issues pertaining to the development of Sukuk as an alternative product have also been highlighted and suggestions have been made for their solution and further study.

4. Analysis

4.1 Comparative study:

A comparison of the product structures is summarized in Table 2.

1 Dedicated cash flows through an escrow arrangement are also used in conventional project financing.
2 Islamic Financial Services Infrastructure presently consists of institutions like IIFM, IIRA, LMC, IFSB, AAOIFI, GCIBFI and IRTI (Alvi, 2005).
Table 2: A comparison of the Product Structures

<table>
<thead>
<tr>
<th></th>
<th>Sukuk</th>
<th>Bond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction nature</td>
<td>Investment in asset</td>
<td>Debt of issuer</td>
</tr>
<tr>
<td>Profit or return</td>
<td>Actual earnings from the underlying assets</td>
<td>Interest at the contracted rate by the issuer</td>
</tr>
<tr>
<td>Principal</td>
<td>Sale proceeds or progressive purchase by the issuer. Principal not guaranteed</td>
<td>From the cash flow of the issuer. Principal payment is guaranteed.</td>
</tr>
<tr>
<td>Underlying asset</td>
<td>Shariah compliant real asset</td>
<td>The issuer can use proceeds for any purpose.</td>
</tr>
<tr>
<td>Tradable</td>
<td>Allowed only when it represents ownership in tangible asset or immovable</td>
<td>No ownership of assets. Traded as a debt</td>
</tr>
<tr>
<td>Risk</td>
<td>Relates to assets</td>
<td>Relates to issuer</td>
</tr>
<tr>
<td>Shariah compl.</td>
<td>A requirement</td>
<td>Not a requirement</td>
</tr>
<tr>
<td>Maintenance of assets</td>
<td>Required</td>
<td>Not required</td>
</tr>
</tbody>
</table>
The basic difference between Sukuk and bond emerges from the nature of transaction which treats Sukuk holder as investor and bond holder as creditor. Sukuk holder’s ownership in the assets of the enterprise entitles him to the risks and rewards attached with those assets. As owners, Sukuk holders must share the profits or revenue of the assets in which funds are invested. Instead of regular payments of interest Sukuk holders will receive a share in the revenue or profits. As such neither the income nor the return of principal at maturity can be guaranteed. In contrast, bonds represent debt obligation of the issuer towards the holder and guarantee the return of the principal when redeemed at maturity. Coupon payment is a regular interest payment as a percentage of the principal made by the issuer from its sources. Sukuk assets will not appear on the balance sheet of the issuer as these are owned by the subscribers/holders whereas bond will appear as a liability on the issuer’s balance sheet. The collateralized asset and related cash flows even if dedicated for the service of the bond will still belong to the issuer.

Profit or return in case of Sukuk is not on the instrument but it depends on the actual earnings through the underlying assets and is influenced by the nature of contract on which the issue is based. Accordingly, the investors in a Mudarabah or Musharaka based Sukuk share the risk associated with the cash flow of the project for which financing is raised. Sukuk based on Ijarah and Murabaha contracts will result in predictable and somewhat fixed returns. Therefore, the coupon or profit payment is scheduled according to the income from these assets. Mitigation measures can ordinarily be taken to manage the risk in the payment of principal and regular payment of profit but it cannot be guaranteed. For example, a cash reserve fund can be created where surplus funds after the distribution of coupon payments are kept with the sole purpose of meeting cash flow shortages when returns on the underlying assets fall. Alternatively, coupon payment on a floating rate basis can also be made.

The principal investment can be redeemed at maturity by selling the asset to generate required cash. The asset can be sold at maturity in the market which may yield a capital gain or loss to the holders. However, many assets are of special nature such as motor ways, bridges or airports which may not have ready buyers in the market leaving the issuer to purchase it. In such situations
determination of market price may also be difficult and therefore the price can be settled mutually, which may also be the face value.\footnote{Purchase of asset by the issuer is not mandatory. However, the transaction is subject to normal rules of sale including setting of the price which could be the face value, market value or a mutually agreed price.} In such situations, the investors may require an undertaking or at least a promise by the issuer (for example GOP Ijarah Sukuk and Wapda Sukuk) to buy the asset at face value plus other charges payable by the issuer. If this undertaking is in a form which constitutes a guaranty for the purchase price, it will eliminate the risk relating to the principal payment which is not allowed. If the Sukuk assets have a ready market, these can be sold in the open market as was done by Bahrain Monetary Agency (Usmani, 2006). Principal payment can also be made through progressive amortization along with rentals as done in normal Ijarah contracts or in case of Musharaka based Sukuk through progressive purchasing by the issuer either on face value or based on a comprehensive valuation method as done in normal project financing based on Diminishing Musharaka.

In case of a bond, debt servicing is done by the issuer and therefore there is no specific reference to the income generated by the assets which may not be there. Specific cash flows can be dedicated or bonds can be collateralized but the cash flows and the assets will still belong to the issuer. Cash flow shortage of the issuer can be met through borrowing on short term basis. Bond, being a debt of the issuer, is guaranteed.

Underlying assets must be real and Shariah compliant and must yield returns and cash flows in a Shariah compliant way. In case of conventional bonds, there are no similar restrictions and the issuer can use the proceeds in any way he likes.

Tradability of Sukuk is subject to nature of underlying assets. Since trading of non tangible assets can only be done at par, Sukuk are designed to provide the holder / subscriber proportionate ownership of tangible assets, or a mixture of tangible and non tangible assets fulfilling conditions of tradability at a price other than par.
value. Thus, Ijarah, Musharakah/Mudarabah sukuk are tradable while Sukuk based on Salam or Murabaha representing receivables are non tradable for a capital gain or loss. A hybrid Sukuk consisting of a mixture of different types of assets will be tradable only when it meets the conditions stated above. In case of bonds, these requirements are not necessary. In the secondary markets, capital gains / losses in case of Sukuk are related to the increase in value of the underlying assets whereas market interest rates determine the capital gains in case of a bond.

Risk assessment must precede the decision for investment. The risk in case of Sukuk is an investment risk which relates to the asset as the scrip represents beneficial ownership of the holder in the assets and the type of contract used to structure the Sukuk. Therefore, the risk evaluation has to be based on the business being financed. The investors being owners can have access to information about the business of the firm and should assess the risk themselves. Except institutional investors, common people will usually not have the capability to do so. The rating agencies or the SPV, which are usually required to have the relevant expertise, can also perform this function on behalf of the investors. Risk in a bond is a credit risk which relates to the issuer being his debt obligation. His payment obligations are not related to his income; however, in case of losses, he may default when it is no more possible for him to service his debts. The default risk is usually reflected by credit ratings of the issuer.

Another important difference between a Sukuk and a bond is Shariah compliance. The very purpose of Sukuk is to provide the investor with an option to earn Halal income. In an ambition to achieve targets, wilful or innocent defaults may be committed. This calls for strict Shari’ah supervision keeping in view the convenience with which the Shari’ah compliance requirements can be compromised under market competition. Shariah compliance is not a requirement in case of bonds.

Maintenance of the underlying assets of Sukuk, the risk of loss due to theft, accidents or/and even mishandling require mitigating measures such as Takaful arrangements and will involve cost to the
Sukuk holders. The bond holders do not have to bear such expenses. Any maintenance or risk mitigation measure will be done at the cost of the business enterprise or the issuer as his normal business expense.

The above comparison establishes that although there are some similarities, Sukuk and bond are two different products hence the hypothesis cannot be proved.

4.2 Scope for emergence of Sukuk and related issues.

Past records as discussed in section 2 and frequent news flashes about new issues and issues in the pipeline indicate that this is emerging as one of the major instruments. Besides being an investment tool it may also act as a liquidity management tool.

The comparative analysis above shows that major emphasis has been on reengineering the conventional product to meet shariah requirements instead of designing a new product.

Besides Shariah requirements for the tradability of the instrument as discussed above in section 4.1, one of the prerequisites for the development of Sukuk is the availability of markets with developed infrastructure where the instrument can be readily traded. Countries including Pakistan, Iran and Sudan will have to take steps to develop markets. Otherwise, most of the issues will be confined to regions like OECD countries or Gulf and Malaysia where developed markets exist. Developing countries will be confined to sovereign issues or issues for projects supported by sovereign guarantees. Due to differences in the nature of risks and operational procedures between a bond and Sukuk as outlined earlier and requirement of Shari’ah compliance, the skill requirement is different and in some respects more stringent as compared to conventional bond markets. The manpower development will also have to be taken as a priority area.

The scope for further development of the instrument and growth of the market globally is thus surrounded with issues such as the urge for similarity, hybrid structures, risk relating to principal investment and appropriate mitigating methods. While mitigation of
risk is necessary, it cannot be eliminated altogether. Rating of the issues may include Shari’ah rating to help bring stakeholders’ pressure to manage shariah non-compliance risk. This makes the regulatory function and related institutions very crucial.

The above analysis establishes that Sukuk can be used very effectively to obtain Shari’ah compliant funding provided that the issues highlighted above are effectively addressed in the product structure and subsequent implementation. We have to move forward to the next stage where instead of reengineering the conventional bonds we engineer a new product which will satisfy all Shariah requirements and provide all the features and benefits required by the investors and fund raisers to fulfil their requirements. This will bring more benefits and utility than the existing practice. More importantly, it will manage the risk of Shari’ah non-compliance more effectively.

5. Findings

Based on the analysis and detailed comparison we can conclude that the two products i.e. Sukuk and conventional bond are different products from each other.

Past trends and current data show that use of PLS instruments is not going to commence in the near future. Market acceptance of Sukuk, yet another fixed income security, further strengthens this conclusion. This trend may continue for some time until the Islamic banking system fully matures and outstanding issues are resolved.

The analysis shows that even though the two products are different from each other, there are some similarities in the features and apparent tendencies to further increase it such as providing some sort of guarantee for the principal or income generation which may lead to the danger of shariah non-compliance. This aspect needs to be seriously revisited and all irritants should be removed in order to preserve the differences between the two in the long run. Designing it as a new product will be a better option. Ijarah Sukuk based on sale and lease back apparently has more similarities as compared to other structures. The likelihood of procedural violations in the practice of Sukuk provides a challenge for better supervision and regulation. No
doubt the profitability concerns are important but the confidence of public about Shariah compliance is equally important.

6. Discussion

More than 95% of financing involves Murabahah, Ijarah and Diminishing Musharakah (which is Ijarah based). The investment portfolio of Islamic banks includes Sukuk as major portion followed by placements with financial institutions through commodity Murabahah. Thus, the asset side has one more FI product. It is important to be vigilant about the issues in the practice of Sukuk. It is the right time to move towards designing Sukuk as a new product from the present stage of reengineering the conventional bond.

Sale and lease back is used to gain the ability to pay income to the holders immediately without waiting for the project / assets to be completed and put in operation to generate revenue. However, this method can also be used to raise funds for needs other than new projects and creation of new assets. Even the most criticised Murabahah is being used in a way that it ensures creation of new assets, a necessary benefit of Islamic modes. However, Ijarah Sukuk based on sale and lease back method may not necessarily create new assets. Therefore, the issue of income to Sukuk holders till project assets are put in operation will have to be resolved. Including income during construction in the project cost may be an option which needs further investigation from shariah point of view.

Use of Sukuk in project financing will offer twin benefits. On the one hand, it will develop project financing capability; on the other hand, it will ensure that refinancing of existing assets is not done thus discouraging unproductive government borrowing.

The sale of asset at maturity in the market to redeem the principal may be a preferable method as it would mean actual sale proceeds to be distributed to the holders who are the owners resulting into a capital gain or a loss. While many of the investors may not be interested in a capital gain or a loss, many assets, for example, an airport or a motor way will not find buyers in the market leaving the issuer as the only buyer. This may lead to an uncertainty about the sale of asset(s) at maturity to retire the principal. A promise or an
undertaking by the issuer to purchase these assets at face value does not seem to contradict Shariah requirements provided that it is drafted in a way that it should not practically guaranty the principal amount. This method which is being used at present should be treated as a fall back method and may be replaced with progressive amortization of principal. Instead of creating a sinking fund to buy asset(s) at maturity, the principal could be amortized through lease rentals as is done in case of normal Ijarah transactions of the banks. This view is also supported by Thomas and Becic (2008). Buying through the sinking fund at maturity has an additional risk that issuers in financial difficulties and cash flow shortages may not be able to maintain the sinking fund properly and be forced to go for another issue to refinance old issue which is a curse prevalent under the conventional system.

7. Conclusions:

The comparative study rejects the hypothesis proving that Sukuk and conventional bonds are different products.

Sukuk is emerging as a major investment product and a liquidity management tool. It is important to remove the irritants and structural deficiencies. Increased regulation, Shariah ratings, and public awareness may build pressure for better Shariah compliance. Faith in the divine guidance and strict adherence to it will help us develop it as a new product away from a reengineered product at present. We must remember that:

And whosoever fears Allah and keeps his duty to Him, He will make his matter easy for him... (Surah Al Talaq Ayat 04)

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COMPARISON OF LONG TERM
ISLAMIC FINANCING MARKET
IN MALAYSIA, THE GCC AND
PAKISTAN

Shazia Farooq
Department of Accounting & Finance
Institute of Business Management (IoBM),
Karachi, Pakistan.

Introduction

Islamic finance industry has shown impressive growth of 15% to 20% per annum with assets under management valued at US$1 trillion. The industry is projected to reach $2 trillion in the next 3 years (Pasha, 2011). Islamic finance has become a global phenomenon with a number of non-Muslim countries also showing keen interest in this area. The government of the United Kingdom intends to make London the hub of Islamic finance with plans to issue sovereign sukuk and amend tax laws on Islamic finance. On the other hand, Hong Kong is working towards becoming the Islamic finance gateway to China. Governments in a number of other countries including France, Germany, Japan, Singapore and South Korea are also taking measures to promote Islamic banking and finance (Kotilaine, 2011).

Elbaff (2011) explains that the recent global financial crisis has given more credibility to Islamic banking and finance. A study conducted by some IMF researchers in 2009 reveals that Islamic financial institutions have shown more resilience than their conventional counterparts (interest-based financial institutions) during the global financial crisis. According to the authors of the report, this excellent performance is attributed to the business model used by Islamic banks which ‘prohibits’ them from engaging in
complex derivative financial instruments and other speculative activities. In other words, Islam does not allow ‘gambling with other people’s money’. Islamic finance is being seen as the more conscientious approach since its lending principles include a requirement that financing must be backed by tangible underlying assets and that both risk and profit are shared between the lender and borrower (Nie, 2010).

It is interesting to point out the case of countries which have in operation a dual banking system (i.e. both the interest-based and non-interest banking systems). Malaysia, for instance, is one such country and it has fared extremely well during the global financial-crisis, whereby the effects of the crisis on the overall economy were neutralized by the good performance of the Islamic financial institutions (Elbaff, 2011).

Some industry observers are of the view that Islamic finance may not be perceived as a substitute for conventional financing, although it has shown impressive growth and given competition to conventional financing in some areas. Jean Lemierre, BNP Paribas senior adviser to the chairman, said, for Islamic finance to grow meaningfully, Islamic finance should put legitimacy of financing as its priority. “Don’t use Islamic finance if it is for real estate financing that will create bubbles, but use it for infrastructure financing where it meets the real needs of the people,” he said (Nie, 2010). Islamic bonds termed as Sukuk have emerged as popular instruments for long term financing by Islamic financial institutions.

**Sukuk Overview**

Sukuk are defined by the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) as:

“Investment sukuk are certificates of equal value representing undivided shares in ownership of tangible assets,
usufruct and services or (in the ownership of) the assets of particular projects or special investment activity. However, this is true after the receipt of the value of the sukuk, the closing of the subscription and employment of funds received for the purpose for which the sukuk were issued.

It is permissible to issue certificates for (to securitize) assets that are tangible assets, usufruct and services by dividing them into equal shares and issuing certificates for their value. As for debts, owed as a liability, it is not permissible to securitize them for the purpose of trading (AAOIFI, 2008).

According to the legal firm Norton Rose, sukuk often referred to as an ‘Islamic bond’, are asset-backed trust certificates evidencing ownership of an asset or its usufruct (earnings or fruits). However, these instruments comply with financing principles defined by Islamic law which prohibits charging or paying of interest (Bi, 2008).

Sukuk contracts signify sale and purchase of a Shari’a compliant asset based on various Islamic contracts including Murabaha (deferred payment), Ijara (leasing of specific assets), Mudaraba or Musharaka (different forms of participation in joint venture businesses). Therefore, the issuance of sukuk is not an exchange of paper money for interest but rather an exchange of Shari’a compliant asset that allows the investors to earn profits from the transaction (MIFC, 2011).

Malaysia pioneered the sukuk market with the issuance of the first such instrument worth US$33 million in 1990. The sukuk market across Muslim (Malaysia, Bahrain, UAE, Indonesia and Pakistan) and non-Muslim countries (USA, UK and Singapore) gained momentum after the issuance of first global sukuk of US$150 million in Malaysia (SBP, 2011). Since then the global sukuk market has surged to US$169 billion in 2011 from US$149 billion at the end of
2010. Malaysia led the way with 62% share followed by Middle East with a 26% market share. A number of other countries from across the globe are also venturing in the sukuk market including United Kingdom, Germany, France, Turkey, Russia, Brazil, Jordan, Australia, Philippines, Sri Lanka, Nigeria, Senegal, Egypt, Korea and Sudan ((IFIS), 2010).

<table>
<thead>
<tr>
<th>Country</th>
<th>Q1 2011 (Amount in $ million)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>105.00</td>
<td>62.1</td>
</tr>
<tr>
<td>Offshore Ctr</td>
<td>25.00</td>
<td>14.8</td>
</tr>
<tr>
<td>Qatar</td>
<td>11.00</td>
<td>6.5</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>10.00</td>
<td>5.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>8.00</td>
<td>4.7</td>
</tr>
<tr>
<td>Others</td>
<td>6.10</td>
<td>3.6</td>
</tr>
<tr>
<td>UAE</td>
<td>4.00</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>169.1</td>
<td></td>
</tr>
</tbody>
</table>

Note: Country is referring to where the sukuk is domiciled. Offshore Centre: Cayman Islands, Jersey, British Virgin and Bermuda.
Source: Bloomberg Professional Services Terminal/MIFC.

According to Bank Indonesia deputy governor Dr Halim Alamsyah, the world sukuk market is dominated by short-term sukuk tenor which is 55%, while the long-term tenor (for example more than 10 years tenor) is only 20% (Bernama, 2011).
Sukuk are expected to post encouraging growth with capacity to be developed into various forms of contracts with attractive features offering competitive returns and liquidity. Excess liquidity from surplus savings in Asia and oil revenue countries across Middle East will be key divers for sukuk growth. This opportunity can be capitalized by the governments as well as private sector in both Muslim and non-Muslim countries to issue sukuk as an attractive capital market instrument (Bernama, 2011).
Islamic Capital Markets - Malaysian, GCC and Pakistan Experience

Malaysian Experience

Malaysia pioneered the development of the global sukuk market with the launch of the first sovereign five-year global sukuk worth US$600 million in 2002. The Association of Islamic Banking Institutions Malaysia (AIBIM) estimates the outstanding amount for government sukuk in the country at RM81.5 billion ($27 billion) as of February 16, 2011 (Chieh, 2011). The maturity and depth of Malaysian sukuk market has ensured a thriving local secondary market, a goal that still most countries are struggling to achieve.

A vibrant sukuk market in Malaysia has attracted a number of foreign issuers who are seeking to diversify funding options. Recently Gulf International Bank, a conventional wholesale bank, has begun work on a ringgit sukuk program to raise at least $1 billion. Abu Dhabi’s transport department is considering a ringgit Islamic funding program. Dubai also plans to issue about $1.5 billion as sovereign sukuk in Malaysia. In February 2011, Kuwait-based Gulf Investment Corporation sold 600 million ringgit ($200 million) of five-year Islamic bonds in Malaysia. National Bank of Abu Dhabi, the UAE’s largest lender by market value, launched a 10-year 500 million ringgit Islamic bond in December 2010, its second ringgit bond during the year (Sing, 2011).

Sukuk Structure

Shari’a Advisory Council of the Securities Commission of Malaysia governs the principles based on which Sukuk should be issued. It recognizes Bai Dayn or debt trading as one of the acceptable principles for Sukuk issuances, whereby Shari’a compliant cash receivables arising from contracts such as Murabaha, Bai Bithaman Ajil, Ijarah or Istisna’a are converted into tradable debt instruments. Until 2003, Sukuk issuances in Malaysia had been confined to instruments based on the securitization of debt arising from the contracts of Murabaha, Bai Bithaman Ajil and Ijarah. The former two are not acceptable outside
Malaysia, especially GCC and Pakistan, as they are backed by debts or receivables rather than tangible assets. Malaysian sukuk issuers started using the participatory contracts of Musharaka and Mudaraba since 2004, following which sukuk market in the country has witnessed tremendous growth. Sukuk Al Musharaka received overwhelming response reaching 84% of the total market issuance by first half of 2008 ((IIFM), 2010).

**Measures to Develop Sukuk Market**

Several measures have been put in place to further develop the sukuk market in Malaysia. An important step was the launch of the Malaysia International Islamic Financial Center (MIFC) in 2006, with the aim of promoting Malaysia as the international Islamic financial hub and the centre for Sukuk origination globally. Another significant initiative was the liberalization of regulations to allow foreign issuers to raise Islamic bonds in the Malaysian capital market. This has led to several issuances of Islamic bonds by multilateral agencies, such as the International Finance Corporation, International Bank for Reconstruction and Development and the Islamic Development Bank (Razak, 2010).

**GCC Experience**

Huge government initiatives coupled with growing private sector activity have stimulated the GCC sukuk market, after a brief setback in 2010. GCC accounted for 38% ($17 billion) of global sukuk issuance up to September 2011, compared to 28% ($7.6 billion) and 22% ($6.1 billion) in 2009 and 2010 respectively. Corporate sukuk accounted for 87% of total GCC sukuk issuance in 2011, up from 77% in the preceding year (Kotilaine, 2011) (Alhanidi, 2011). The trend in the region indicates increasing role of sukuk in fund raising due to investor preference for Shari’a compliant instruments.

Bahrain has been the most active sukuk market in the GCC region and the first government to issue sukuk. The country has a strong regulatory framework serving and home to the Accounting and Auditing
Organisation for Islamic Financial Institutions (AAOIFI). Despite several sukuk issues, the market is not sizable due to small issue size. Furthermore, recent law and order issues in the country have tarnished Bahrain’s reputation as the Islamic finance hub. Nonetheless, the country issued $530 million sovereign sukuk in 2011 (Shah, 2011).

Although Saudi Arabia and UAE have been relatively less active countries in the GCC, the two together claim a significant share of the GCC domestic issuance. Saudi Arabia and UAE have a mix of sovereign, quasi-sovereign and corporate sukuk while all domestic Sukuk from Bahrain has been sovereign ((IIFM), 2010). Going forward, sukuk market in Saudi Arabia is expected to show impressive growth with government inclination towards it for financing a major portion of infrastructure investment, estimated in excess of US$ 750 billion. The government has already announced that the new King Abdul Aziz Airport project in Jeddah will be financed through sukuk (Kotilaine, Saudi Sukuk market outlook promising, 2011).

Qatar is fast emerging as a key sukuk market in the region, with Qatar Central Bank issuance of $9 billion three-year sukuk in January 2011 to mop liquidity. Qatar Islamic Bank is expected to raise US$1 billion in sukuk in 2011. The kingdom has aggressive infrastructure development plan including a new downtown in Doha; a new Doha international airport; and facilities for the 2022 World Cup. Sukuk can play an important role in financing these projects (Shah, 2011).

To enhance the role of sukuk in project finance, tenors will have to be increased beyond five years and innovation will be required to satisfy the dynamic needs of the customer (Kotilaine, Saudi Sukuk market outlook promising, 2011). The sukuk market in the region also lacks standardisation resulting in added cost and complexity since underwriters need to hire their own Shari’a scholars to obtain a verdict on Shari’a compliance. On the contrary, Malaysia has standardised contracts. The Hawkamah Institute for Corporate Governance in Dubai
has announced plans to standardise Ijara based sukuk used in sale and lease agreements in real estate purchase (Shah, 2011).

Another area that needs to be addressed in the GCC is the illiquidity of the sukuk market, unlike Malaysia. Trading activity in GCC secondary sukuk market is low since investors generally tend to hold these instruments till maturity. Furthermore, secondary sukuk market trading platforms in GCC are limited, present only in Bahrain, Dubai and Saudi Arabia. Furthermore, GCC secondary sukuk market is also characterized by transparency issues (Bayina, 2010).

Pakistan Experience
Pakistan’s Islamic banking assets witnessed a compounded annualized growth (CAGR) of 28% during the past five years to reach PKR560 billion (US$5.7 billion) as of June 2011, 7.3% of the total financial sector. Pakistan aims to double that share to 12 percent by 2012 ((SBP), 2011). Islamic banking sector has attracted foreign investment despite law and order situation in the country. Albaraka Banking Group BSC, Bahrain’s biggest publicly traded Islamic lender, extended its branch network to 90 in Pakistan after acquiring Emirates Global Islamic Bank in 2010. Meezan Bank, controlled by Kuwait’s Noor Financial Investment, plans to open 225 new outlets in the next four years. Meezan is the first and largest Islamic commercial bank in Pakistan.

In line with industry trends, Sukuk market in the country has grown more than ten fold during the period 2006-11. Pakistan made its debut in the global Sukuk market with the issuance of an international sovereign Sukuk of US$600 million in 2005. This five year, dollar denominated, B+ rated Sukuk (Standard & Poor), was listed at Luxemburg stock exchange with Citi Bank and HSBC as lead managers. It attracted an overwhelming response of around US$ 1.2 billion from diverse geographic locations with concentration in Middle East

1 Based on a parity of IU$ = PKR99
Discussion  Comparison of Long Term Islamic Financing Market In Malaysia

originating from both conventional and Islamic financial institutions (SBP, 2011).

The first Sukuk in the domestic market was issued in 2006 of PKR 8,625 million (US$87.1 million) and by March 2011 a total of 57 Sukuk were issued. The slowdown in domestic sukuk market in 2008, as seen in the table below, was a consequence of global financial turmoil. Subsequently, since March 2009, the market has been stimulated by PKR160 billion (US$ 1.6 billion) of sukuk issuance by Government of Pakistan. Domestic sukuk market has emerged as an attractive avenue for placement of excess liquidity by Islamic financial institutions as well as Development Financial Institutions (DFIs). Islamic banks and windows of conventional banks have allocated almost 90% of total investments towards sovereign sukuk (SBP, 2011).

Table 2: Domestic Sukuk Market Growth in Pakistan

<table>
<thead>
<tr>
<th>Year</th>
<th>(Amount in PKR million)</th>
<th>Number of Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8,625</td>
<td>2</td>
</tr>
<tr>
<td>2007</td>
<td>51,755</td>
<td>22</td>
</tr>
<tr>
<td>2008</td>
<td>31,886</td>
<td>18</td>
</tr>
<tr>
<td>2009</td>
<td>52,387</td>
<td>9</td>
</tr>
<tr>
<td>2010</td>
<td>89,811</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>93,342</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>327,806</td>
<td>57</td>
</tr>
</tbody>
</table>

Source: State Bank of Pakistan, Islamic Banking Bulletin

Break-up of Sukuk Market

Corporate sector accounted for a major share in sukuk issuances till March 2009. Subsequently, the situation has reversed with sovereign sukuk constituting more than 68% of total value of sukuk issued in 2011. The shift in sukuk contribution has followed global trends where share of corporate sukuk has declined to 68% from 90% in 2005. The change may be attributed to a general slowdown in domestic and
global economies whereby corporate entities remained wary of raising funds through Sukuk issuances while investors were inclined towards safer sukuk issuances (Sovereign and Quasi Sovereign). Defaults in some local corporate sukuk have adversely affected investor sentiment making this avenue difficult for capital raising ((SBP), 2011).

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate</th>
<th>Sovereign</th>
<th>Quasi-Sovereign</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>7.2</td>
<td>0</td>
<td>92.8</td>
</tr>
<tr>
<td>2007</td>
<td>58.3</td>
<td>0</td>
<td>41.7</td>
</tr>
<tr>
<td>2008</td>
<td>50.0</td>
<td>13.6</td>
<td>36.4</td>
</tr>
<tr>
<td>2009</td>
<td>47.6</td>
<td>29.2</td>
<td>23.2</td>
</tr>
<tr>
<td>2010</td>
<td>29.7</td>
<td>56.0</td>
<td>14.3</td>
</tr>
<tr>
<td>2011</td>
<td>21.2</td>
<td>68.5</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Source: State Bank of Pakistan, Islamic Banking Bulletin

**Sukuk Structures**

The sukuk instruments issued to date are concentrated in the short to medium term tenor ranging between 3 to 7 years. Ijarah is the most commonly used sukuk structure in Pakistan followed by Diminishing Musharaka and Musharaka. The popularity of Ijarah sukuk is attributed to its simple structure, tradability and flexibility to monetize existing assets (through sale and lease back structures) for raising funds ((SBP), 2011).

**Budget Deficit Financing:** Ijarah sukuk structure particularly suits governments as it can securitize some infrastructure related assets including motorways, airports and power plants to finance budget deficits. All Sukuk issuances, domestic or international by Government of Pakistan (GoP) have been Ijarah based. The use of funds raised through sukuk issuances by the government for financing infrastructure projects is questionable. This suggests the need for Shari’a scholars to effectively monitor the real purpose of financing to further the real objectives of an Islamic financial system ((SBP), 2011).
**Liquidity Management:** The issuance of sovereign Sukuk has provided the long awaited benchmark to Islamic financial institutions, which previously relied on interest rate benchmark such as KIBOR to determine profit rates. Furthermore, the development of government sukuk market has facilitated liquidity management for Islamic financial institutions in addition to improving the asset quality. Attractive yields on sukuk have encouraged Islamic banks to reallocate assets from interbank placements (low return investment avenues) to Islamic bonds, resulting in enhanced profitability (SBP, 2011).

**Future Outlook**
Given the impressive growth witnessed in the local and global Sukuk market, especially in Malaysia and GCC, it can be instrumental in capital raising for infrastructure development. Medium Term Development Framework developed by the government has identified need for such financing in diverse sectors including energy, transport & communication and socio-economic.

To develop a vibrant sukuk market, the industry needs to address several challenges including dearth of short term and long term instruments, absence of secondary market for mitigating liquidity risk, identification of assets for sovereign Sukuk and disclosure of actual financing purpose. The advancement of sukuk market requires concerted efforts from all stake holders including regulators, corporate sector, Islamic financial institutions and asset management companies. Coordination between SECP and SBP is crucial to create an enabling regulatory framework and resolve issues especially those pertaining to Shari’a compliance.
Bibliography


CASE FOR REVIVAL OF DFIs IN PAKISTAN

H. Jamal Zubairi
Department of Accounting and Finance, Institute of Business Management (IoBM), Karachi, Pakistan.

Background / History

Unlike Commercial Banks which mainly provide short term working capital financing, Development Finance Institutions (DFIs) primarily focus on long term financing for development of long term assets. Another difference between Commercial Banks and DFIs is that while the former usually caters to the needs of existing businesses, the later helps in setting up new greenfield or traditional projects, as well in Balancing Modernization & Replacement (BMR) / expansion of existing projects. By the very nature of their operations, financing by DFIs carries a higher risk as compared to financing by Commercial Banks. As was the case in other developing countries of the region, DFIs were set up in Pakistan during 1950s and 1960s for giving an impetus to economic growth and development. International Financial Institutions (IFIs) played a major role in helping to set up DFIs.

The DFIs in Pakistan were instrumental in giving a boost to the private manufacturing sector, developing new entrepreneurs and setting up of industries in less developed areas. They also helped in rehabilitating sick or problem projects and in monitoring special loans provided by the government or foreign institutions. Apart from promoting establishment of import-substitution industries, the DFIs assisted in capital formation through direct equity financing, as well as through underwriting of public issue of shares and debentures of
local companies. They also assisted Pakistani entrepreneurs in obtaining foreign investment, in formation of joint ventures and in arranging technical / managerial advice for businesses and industries. Upto the 1980s, the DFIs were by and large working smoothly and had made a valuable contribution to the country’s economic progress including creation of numerous direct and indirect jobs. However, subsequently in late 1980s and 1990s, many DFIs ran into problems on account of increased political interference, poor management, piling up of non-performing loans (NPLs), lack of resources, particularly foreign currency credit lines from ADB and World Bank etc. The need of the hour and national interest demanded that the flaws of the DFIs were removed through restructuring and induction of autonomous professional management, so that the DFIs continued to play their positive role in the industrial development of the country. After all you do not impose a ban on knives because they can be used to injure someone. However, what we actually saw was an orchestrated campaign to discredit the DFIs concept itself and their dismantling either through liquidation or merger into commercial banks in a planned way, reportedly under pressure from IMF and World Bank. Under this policy two premier DFIs, PICIC and NDFC were merged with NIB Bank and NBP respectively, while Bankers Equity Ltd. (BEL) was liquidated. IDBP, which also holds a commercial banking license, is presently not undertaking any significant industrial financing activity. SME Bank, which also holds a commercial banking license, is not geared to finance large industrial projects. Leasing companies, with a maximum lease rental payment of five years, can play only a limited role in providing long term financing. The enabling environment for a long term bonds market also does not exist. Thus presently, long term sources for funding large industrial undertakings hardly exist for local entrepreneurs.

The above faulted policy, seriously affected industrial development in the country due to drying up of long term sources of financing necessary to develop long term assets. Moreover, in late
Discussion

Revival Case For of DFIs In Pakistan

90s to early 2000s, the low market interest rates resulting from SBP policies lured the Pakistani consumer towards the attractive consumer financing schemes floated by banks and other financial institutions. Since most of the consumer products purchased by Pakistanis through bank financing were manufactured abroad, our policies helped in running the wheels of foreign countries’ industry while artificially raising the standard of living of the naïve Pakistani consumer. The inevitable had to happen and we have now seen the downfall of consumer financing with massive defaults resulting from increase in interest rates. The situation is so bad now that even Citibank, the pioneer of consumer financing has scaled down its consumer banking operations.

Impact of Closure of Major DFIs

Impact of closure of major DFIs can be seen by looking at the share of manufacturing sector credit in total scheduled bank advances and comparing with the growth rate of Gross Capital Formation in the years 2004-05 to 2010-11. These figures are given in the tables 1 and 2 below, while growth rates of manufacturing sector and Large Scale Manufacturing (LSM) are given in table 3.

Table 1  Share of Manufacturing Sector Credit in Total Scheduled Bank Advances

<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 – 05</td>
<td>43.43</td>
</tr>
<tr>
<td>2005 – 06</td>
<td>29.78</td>
</tr>
<tr>
<td>2006 – 07</td>
<td>28.53</td>
</tr>
<tr>
<td>2007 – 08</td>
<td>26.75</td>
</tr>
<tr>
<td>2008 – 09</td>
<td>23.84</td>
</tr>
<tr>
<td>2009 – 10</td>
<td>22.02</td>
</tr>
<tr>
<td>2010 – 11</td>
<td>21.30</td>
</tr>
</tbody>
</table>

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Table 2  Gross Fixed Capital Formation to Private Sector Manufacturing at Current Market Prices (in Rs. Million) during 2004 – 05 to 2010 - 11

<table>
<thead>
<tr>
<th>Years</th>
<th>Gross Fixed Capital Formation</th>
<th>Rate of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 - 05</td>
<td>244,959</td>
<td></td>
</tr>
<tr>
<td>2005 - 06</td>
<td>320,501</td>
<td>30.80%</td>
</tr>
<tr>
<td>2006 - 07</td>
<td>346,574</td>
<td>8.10%</td>
</tr>
<tr>
<td>2007 – 08</td>
<td>362,824</td>
<td>4.70%</td>
</tr>
<tr>
<td>2008 – 09</td>
<td>371,098</td>
<td>2.30%</td>
</tr>
<tr>
<td>2009 – 10</td>
<td>351,200</td>
<td>-5.40%</td>
</tr>
<tr>
<td>2010 – 11</td>
<td>312,200</td>
<td>-11.10%</td>
</tr>
</tbody>
</table>

Source: Pakistan Economic Survey various issues

The above tables indicate that due to decline in credit to manufacturing sector because of closure of DFIs, fixed capital formation in private sector manufacturing industry has been adversely affected. This is also reflected by a declining trend in the growth rates of manufacturing and LSM, with growth rates being negative in fiscal year 2009.
Table 4 Credit to the manufacturing sector measured at constant prices (1999 – 2000 = 100)

<table>
<thead>
<tr>
<th>Years</th>
<th>Credit to LSM</th>
<th>Current prices</th>
<th>Constant prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 - 91</td>
<td>81,104</td>
<td>247,886</td>
<td></td>
</tr>
<tr>
<td>1995 - 96</td>
<td>186,783</td>
<td>357,283</td>
<td></td>
</tr>
<tr>
<td>2000 - 01</td>
<td>382,893</td>
<td>368,029</td>
<td></td>
</tr>
<tr>
<td>2004 - 05</td>
<td>183,691</td>
<td>615,818</td>
<td></td>
</tr>
<tr>
<td>2005 - 06</td>
<td>899,727</td>
<td>654,584</td>
<td></td>
</tr>
<tr>
<td>2006 - 07</td>
<td>1,003,448</td>
<td>683,175</td>
<td></td>
</tr>
<tr>
<td>2007 - 08</td>
<td>1,204,435</td>
<td>732,135</td>
<td></td>
</tr>
<tr>
<td>2008 - 09</td>
<td>1,231,732</td>
<td>619,957</td>
<td></td>
</tr>
<tr>
<td>2009 - 10</td>
<td>1,263,565</td>
<td>574,517</td>
<td></td>
</tr>
</tbody>
</table>

Estimated using Banking Statistics of Pakistan, State Bank of Pakistan

Table 4 presents data on scheduled bank’s credit extended to the LSM sector measured at constant 1999 – 2000 prices (the Finance and Insurance sector deflator has been used for deriving this constant price series).

Figure 01 Credit to LSM sector at Constant Prices
(1999 - 00 = 100)

Measured at constant prices credit extended to the LSM sector was 48% higher in 1995 – 96 than in 1990 – 91. In the next five years it rose much less rapidly so that in constant price terms the 2000 - 01 LSM credit level was only about 3 percent higher than it had been in 1995 – 96. The following years saw much higher credit growth.
The 2005–06 LSM credit level was 78 percent higher than in 2000–01. LSM credit growth in constant prices annually averaged 5.9 percent during 2004–05 to 2007–08. During 2008–09 and 2009–10 credit to manufacturing sector declined significantly. It recorded a cumulative fall of over 21.5 percent during these two years in constant prices. Even when measured at current prices, credit extended to the LSM sector in FY2009–10 was only 4.9 percent higher than the 2007–08 level.

The credit to net output ratio has historically been high for large scale manufacturing – higher than for any other sector in the economy. This ratio rose from 77.28 percent in FY 19990–91 to 96.2 percent in FY 2004-05. But it has fallen in most subsequent years. The value of the LSM credit to net output ratio was 16.34 percentage points lower in 2009–10 than in 2004–05.

Project and long term finance has almost disappeared and banks advance only working capital loans and trade financing facilities. The collapse of the DFIs has very seriously hurt the LSM sector – not only has credit disappeared at the long end of the market, project evaluation monitoring and implementation capabilities have been drastically impoverished. New manufacturing sector projects – especially in the technologically intensive sectors – are virtually non-existent both because of project formulation and implementation capability deficiencies and because of non availability of long term finance.

Table 5 presents data on gross fixed capital formation (GFCF) in the LSM sector measured in 1999–2000 constant prices as a share of total GFCF.
Table 5 GFCF in LSM

<table>
<thead>
<tr>
<th>Year</th>
<th>Constant LSM GFCF (2000-01)</th>
<th>LSM GFCF as a percent of total GFCF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Public</td>
</tr>
<tr>
<td>1990–91</td>
<td>66,976</td>
<td>5,246</td>
</tr>
<tr>
<td>1995–96</td>
<td>67,145</td>
<td>5,421</td>
</tr>
<tr>
<td>2000–01</td>
<td>107,908</td>
<td>13,044</td>
</tr>
<tr>
<td>2004–05</td>
<td>115,865</td>
<td>1,282</td>
</tr>
<tr>
<td>2006–07</td>
<td>140,529</td>
<td>1,893</td>
</tr>
<tr>
<td>2007–08</td>
<td>124,420</td>
<td>581</td>
</tr>
<tr>
<td>2008–09</td>
<td>92,268</td>
<td>1,565</td>
</tr>
<tr>
<td>2009–10</td>
<td>76,498</td>
<td>1,357</td>
</tr>
<tr>
<td>2010–11</td>
<td>51,675</td>
<td>1,215</td>
</tr>
</tbody>
</table>

Source: Pakistan Economic Survey

Figure 2 LSM GFCF as percentage of Total GFCF

Table 5 provides definitive evidence of continuing and accelerated deindustrialization in Pakistan. Measured in constant prices private sector investment was stagnant during FY 91 to FY 96. Public sector investment increased marginally during this period but even in 1995 – 96 accounted for only about 7 percent of gross manufacturing fixed capital formation. During this period the LSM sector’s share of Pakistan’s gross fixed capital formation was halved – falling from 37 percent in 1990 – 91 to 18 percent in 1995 – 96.

Private manufacturing investment grew rapidly during the second half of the 1990s decade (Nawaz Sharif’s second government) and public investment also rose significantly. The 2000 – 01 level of...
public investment in the LSM sector was almost two and a half time higher than the 1995–96 public investment level. The manufacturing sector’s share of national GFCF increased during 1994–95 to 2000–01 but remained well-below the level achieved in the late 1980s (19 percent in 2000–01 as against 37 percent in 1990–91).

Disaster struck the manufacturing sector during 2001–2010; truly a lost decade as far as manufacturing sector investment is concerned. Total manufacturing sector gross fixed capital formation in FY 2009–10 is about 44 percent lower than in 2005–06 when measured in constant prices. It is 35 percent lower than the level of 2000–01. Manufacturing investment has fallen every year during 2006–07 to 2009–10, a cumulative decline unprecedented in our history. During 2005–06 to 2009–10 annual fixed investment by the private LSM sector registered a cumulative decline of about 50 percent. Over 80 percent of the decline has been concentrated in FY 09 and FY 10. Public manufacturing investment has been virtually eliminated. In 2009–10 public investment accounted for just 1.7 percent of LSM sector gross fixed capital formation. Over the 2006–07 to 2009–10 period, its share was only slightly higher. Public investment played a crucially important role in establishment of technology intensive industries during the 1970s and 1980s – steel, automobiles, chemical, fertilizers machine tools etc. The eclipse of public investment tantamounts to an accelerated de-technologization of Pakistan’s manufacturing. Foreign investors are not willing to ‘crowd in’ to the capital goods branches and the unavailability of long term finance makes it impossible for the domestic private sector to do so. A revival of public manufacturing sector investment is urgently necessary to increase the technological content of our manufacturing output and exports, without which we will continue to lose both domestic and export markets to foreign competitors.

Table 5 shows that the share of LSM in national gross capital formation fell from 36 percent in 1990–91 to 19 percent in 2000–01 and to 16.7 percent in 2005–06. It has continued to fall in every year.
of the 2005 – 06 to 2010 – 11 period and in 2010 – 11 LSM’s national 
GFCF share was only 6.5 percent – much lower than its share in 2000 – 
01 and the level of this share in FY 90 – 91. Such devastating 
evidence of accelerated deindustrialization illustrates the 
dysfunctionality of a macroeconomic strategy focused on demand 
restraints and a rapid withdrawal of the state – both as direct investor 
and as provider of incentives and subsidies – from the commodity 
producing sectors specially large scale manufacturing. If this IMF 
sponsored and crafted strategy is continued, it will lead to a complete 
collapse of the large scale manufacturing sector and an irreversible 
decline in our global and domestic market competitiveness.

Conclusions and Recommendations

The above information and data shows that in the past 
decade Pakistan has been continuously on the path of de-
industrialization. A major contributing factor in this has been the 
closure of the major DFIs in the country. If Pakistan has to progress, 
the process has to be reversed. For this, public sector DFIs must be 
revived, as private sector which is mainly motivated by profit cannot 
be expected to play this role. Objectives like development of backward 
areas, infrastructure development, importing only appropriate 
technology for creation of maximum new jobs, economic viability of 
new industrial projects etc. may not be priorities of the private sector 
while evaluating the feasibility of new projects. In some cases these 
objectives might even conflict with private sector’s profit motive. 
However, learning from past mistakes, the DFIs must be run on 
professional lines, financing should be strictly on merit and their 
management should be truly autonomous and totally free from political 
pressures.
BOOK CRITIQUE: AN INTRODUCTION TO PHILOSOPHY OF EDUCATION, 4TH EDITION
BY ROBIN BARROW AND RONALD WOODS

Sarwat Nauman
Department of Communications,
Institute of Business Management (IoBM)
Karachi, Pakistan

The book ‘An Introduction to Philosophy of Education, 4th Edition’ by Robin Barrow and Ronald Woods deals with the basic concepts in the philosophy of education. Robin Barrow and Ronald Woods through this book are validating and promoting the Greek system of education from which the Western school system has emerged. This school system emphasizes two aspects: First that the universe can be understood rationally and second, a vital part of understanding is to have clear concepts. We see the same idea running throughout the book. The authors seem to be ardent supporters of rationalism and logic; they use rationality to clarify the meanings of certain words and phrases as they claim that one can only understand and assess an argument for being valid or invalid if the meaning of the words that make up an argument can be understood. Therefore, they validate some practices and abandon others in the field of education on the basis of logic and conceptual framework.

It is stated in the introduction of the book that its purpose is to help those who are new to the field of educational philosophy, therefore, they define and explain certain words, through logic and rationality, readers understand the concept of the key terminologies related to the field of education where authors elucidate these terms by systematically bringing the argument forward through examples.
and their explanation. This technique of explanation helps amateurs in philosophy to comprehend ideas that are novel to them.

They start by two fundamental concepts: Concept about education and concept about educated man. They point out that because not many, understand the word ‘education’ holistically they, therefore, have a vague idea of what education is and their views on education have no importance. Those who want to explain and discuss the educational policies must have a clear idea what is meant to be ‘educated’ and ‘to educate’. They explain that education is ‘to explain complex ideas’ and educated man along with skill should also have a concept about that particular skill.

Connected with the concept of education is educational institution and when it comes to elaborate the role of an educational institute, the authors stress that its fundamental role is to educate. They argue that the role of an educational system has depreciated and now it serves as child minding facility where individuals are developed emotionally, moralized, trained and social behavior is imparted to them. As a reader it is difficult to understand as to how a school should not play its part in instilling values or moralizing a child. It makes no justification that a child should be taught only objectively as in today’s day and age, children spend seven to eight hours a day in their school. It is difficult to agree with the authors as schools have a greater responsibility to play than to just explain difficult ideas to the pupils. Moreover, discussing the ideal curriculum, the authors favour the progressive educationists who emphasize that the schooling system should focus upon ‘Educate for Life’ - to adopt certain ways in life not mere transfer of knowledge. Therefore, the curriculum of the institutions should be according to what goes on in the real world and should transform the way the students see and feel about the world. Now the question that comes to the mind of the reader is that if the schools are there to teach only objectively and explain complex ideas then how can they educate for life? Life is more than just complex ideas.

Unlike the other terms, the authors do not define the word ‘curriculum’. The authors justify this by saying that if a word is narrowly defined then it loses some of its characteristics. This
justification does not sound very convincing to the reader as the focus of this book till this point had been to explain various words.

Knowledge based curriculum is favoured by the authors and suggest that out of the abundance of knowledge available in the world the educational institutes should aim at the development of mind through intellectual pursuits. Here the authors don’t elaborate upon what intellectual pursuits are and what exactly is intelligence. The authors are justified in saying that as the curriculum decisions rest upon the system it caters and that varies with time and place, therefore, while developing curriculum we need to have a clear idea as to why we need a certain type of curriculum instead of including new areas of study without adequate research and justification. We as Pakistanis can very well relate to the issue of making too many subjects a part of the curriculum without the much needed research. The most recent example of this is when it was announced that in a few years time the Chinese will be made compulsory throughout Pakistan. The authors stressed on Hirts arguments about knowledge who distinguished what he called ‘forms of knowledge’ through a four point criteria and said that knowledge is based on concepts, it has logical structure, it can be tested against experience and a skill can be developed based on that knowledge. The authors question Hirts’ testability against experience in fields like mathematics, religion etc.

Barrow and Woods seem to place more responsibility with the teachers and they suggest that the best curriculum specialists can be the teachers themselves therefore, those teachers who have a firm grip on the theoretical aspects of education should be in charge of curriculum development. This argument of Barrow and Woods is justified and no doubt the best curriculum specialists can be the teachers themselves as they are the ones, who after students are the most affected by the curriculum. The teachers certainly have to face what goes on in the class and they are the best judge of what should and shouldn’t be a part of the curriculum.

The two opposing concepts – Indoctrination and rationality – are beautifully dealt with by the authors. Indoctrination is when one does not question his own views and does not use sound
reasoning for making a choice. The authors emphasize that teaching becomes indoctrination if other point of views is not taken under consideration and the teacher’s own view is presented as the final verdict. Indoctrination according to the authors should not be practiced by educators; they may condition their pupils to behave in a certain way. This point of argument was ambiguous as there is a fine line between conditioning and indoctrinating. The readers may argue that all forms of education are to some extent indoctrination. There wasn’t sufficient proof to show the difference between moral training and indoctrination except that the authors remark about moral training that after some time the children are able to examine the moral values in the society. One wonders what happens if they find that the moral values are valueless and should not be followed; should they be allowed to do as they wish.

While discussing rationality in an educational system Barrow and Woods explain that rationality in education is developed when children do not assume things to be true because they are said to be true. The whole idea seems to be anarchical as there will be no central belief to be considered as accurate having established the facts in the previous chapters about human beings being different from one another. According to the authors, an argument is rational if there is a valid reason to it. Rationality in education helps to produce reflective individuals who have certain beliefs with justified reasoning to those beliefs. I agree with the authors upon this point of rationality but in a society like the Pakistani society, not all arguments can be reasoned as there is a firm belief in religion and certain aspects of religion cannot be debated.

From rationality and reasoning spring out the concepts of ‘individuality’, ‘independence’, ‘self-determination’, and ‘self-direction’ which the authors discuss in chapter eight. One should abide by the rules because there is a good reason for doing so. A person cannot be self determined if he is controlled externally or by passion and emotion and does not rely on reasoning. Individualism can be promoted if Children are allowed to explore all possibilities themselves and be free to do whatever they want to as long as they don’t interfere in other people’s freedom and don’t hurt themselves. Children should be able to think and give reasons for what they have chosen for themselves. The authors don’t explain here what type of
reasoning is acceptable as the parents will not accept such reasoning that contradicts with their social and religious beliefs. In my opinion ‘individuality’ and ‘self-regulations’ are as vague a concept as creativity or child-centred. Even though it has been argued that ‘all humans think but not all think well’ which means that not all arguments make sense.

Barrow and Woods justify the vagueness of words such as child-centred and creativity. They argue that child-centred means that an educational system should treat every child as an individual therefore the curriculum should be devised such that it takes into consideration what the child wants to study - considers child’s needs, interests and readiness. Therefore, a child should not be given a task unless and until he is ready to do that task. The authors argue that a child may never seem to be ready and show interest in a task. The authors ask that at what point teachers should force students to learn a certain concept and that it is unacceptable that nothing is done at schools except what children express a readiness to do. Also a child may not be interested in learning a certain thing and therefore may think that he doesn’t need to learn it – what should the schools do then? Therefore, the authors believe that this term is too obscure for any practical benefit. Also since all children are different and they have individual needs, therefore, it will be difficult to come up with a curriculum that caters to all.

Regarding creativity, they claim that as an empirical fact nothing is known as to how creative individuals can be produced except that we should not let children be overwhelmed by the idea that experts are to be consulted in every field, ingenuity and imagination should be promoted also skill and understanding should be developed in any given sphere. The writers include that to reach a level of excellence they must refer to the standards laid down by the experts. Here the reader sees contradiction between the ideas laid down by the authors i.e. if the students are told not to consult the experts, then how will they refer to the standards? Also in the following chapters, the authors talk about how a society maintains and promotes a culture and its standards through its élites – those who are competent in various spheres. A cultured man therefore must appreciate art or and must also have intellect. The authors say that the most difficult of philosophical problems is to fix a criterion for aesthetic excellence;
there is no other way but to select certain works and examine them through literary criticism, but such criticisms are difficult to agree upon. The authors were very well able to explain the concept of elite through various examples. The readers aptly understand the role of the elite.

The writers move on to explain that they have seen conceptual weakness of research in three areas: Firstly, most researchers don’t have conceptual grasp of educational enterprise; secondly, the concepts about the issue being researched are not clear and thirdly, the concept of particularities of local content is unclear. There are three closely related explanations for this unclear conceptualization in their work: Firstly, they do not articulate the conceptualization that they have; secondly, they know the need for a sound conceptualization of educational enterprise but don’t know how to achieve it, and thirdly, sometimes the educational enterprise is implicit. All would agree to these areas of weakness in the research that the authors have pointed out. No doubt without a firm grip on the problem and on its background, it is impossible to conduct a research well.

The authors out rightly reject the empirical research by saying that if the research of the last fifty years is taken seriously, we will see contradictory evidence on many issues; yet there are a few principles which are now considered to be the ultimate truths and universal due to the findings of empirical research. The teachers adopt these perceived truths without thinking ‘what is taught’ ‘to whom’ and ‘why’ and react to situations as they are tuned - without using their intellect. As much of the research is done for industrial, military and management models therefore the ‘education’ provided is skill-training, information-processing kind of enterprise. The authors claim that they are concerned with education of this age which is anti-philosophical and the empirical research that is conducted in education can never be fully relied upon as it falls short of the concept. They say that the branches of the curriculum should be studied as a philosophical inquiry rather than natural science because it is concerned with conception and values. It is difficult to agree with the author in this regard as qualitative and quantitative both researches can be used to study an aspect of education. The authors make a claim that the curriculum should be studied philosophically as it is concerned with knowledge and values. By saying this, the authors are negating the
claim that they made at the beginning of this book and that education should only be concerned with the knowledge and the teaching of values and socialization comes from home or the culture.

Lastly, this book discusses the theory and practices in education. Talking about the theoretical aspect, the authors say that philosophy is full of dichotomies and philosophers think that they have to take sides with either this or that dichotomy. The job of a philosopher is different from that of psychologists and sociologists as philosophers contemplated rather than providing empirical data.

According to the writers the problems of education could be put into two clusters: Firstly, those problems that are other than the classroom problems and secondly, those that are directly related to the classroom. The educators themselves should think through these problems rather than let others do the thinking for them, or else they will have to depend upon the conclusions drawn for them. Such reflection on curriculum and teaching will provide assistance to the teachers and help them do away with the role of a child-minder and put them in the capacity of a good teacher. The authors rightly argue that theory and practice are not different from one another; rather practice will be modified by theory and theory through practice. What the authors feel is wanted from theory is the solutions to the everyday problems that the teachers face with their pupils. Barrow and Wood are legitimate in saying that practice and theory should not be divorced from one another.

This book was very well written and used examples and analogies to introduce educational philosophy to armatures. As a novice I was able to easily comprehend what educational philosophy is all about. Barrow and Woods began with ‘what education is’ and ended with ‘want of research in education’. They very artistically were able to touch upon the most basic aspects of education. Since the nature of this book was philosophical, therefore, it was difficult at times to agree with the authors; especially when they talked negatively about indoctrination. One would think that through this writing, the authors are able to indoctrinate the readers. Don’t they want the readers to think like them?

There were certain notions that the authors were biased
about especially when they favoured qualitative research over quantitative research and also when they talked about students being interested in science only for utilitarian purposes and the students’ study of humanity helped in solving the real life problems.

I also believe that even though the authors were ardent supporters of individualism, yet, its practice can be limited in societies like Pakistan. Mainly because indoctrination by parents and by the educational institutions play its part and the individuals are required to keep in mind the likes and dislikes of their family and the society as a whole.

We may or may not agree with the various points discussed in this book, but the bottom line is that this book opens new vistas in developing a philosophical thought in education especially for armatures in the field of educational philosophy.

Reference
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   Submission of a paper will be held to imply that it contains original unpublished work and is not
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3. PBR is a multi-disciplinary journal covering all subject areas of relevance to business in
Pakistan. Research in the areas of Finance, Human Resources, Management, Informatics,
Marketing, Psychology, Economics and issues related to governance is specially encouraged.

4. Manuscripts should be typewritten on one side of the page only, double spaced with wide
margins. All pages should be numbered consecutively, titles and subtitles should be short.
References, tables and legends for figures should be typed on separate pages. The legends and
titles on tables and figures must be sufficiently descriptive such that they are understandable
without reference to the text. The dimension of figure axes and the body of tables must be
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5. The first page of the manuscript should contain the following information; (i) the title; (ii)
the name(s) and institutional affiliation(s); (iii) an abstract of not more than 100 words. A
footnote on the same sheet should give the name and present address of the author to whom
reprints will be sent.

6. Acknowledgements and information on grants received can be given before the references or
in a first footnote, which should not be included in the consecutive numbering of footnotes.

7. Important formulae (displayed) should be numbered consecutively throughout the manuscript
as (1), (2), etc., on the right hand side of the page where the derivation of formula has been
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sheet (not to be published).

8. Footnotes should be kept to a minimum and be numbered consecutively throughout the text
with superscript arabic numerals.

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publications should appear as follows: “Khan (1978) reported that…” Or “This problem has
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(Research Section)

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For periodicals
Note that journal titles should not be abbreviated.

10. Illustrations should be provided in triplicate (one original drawn in black ink on white paper and or with two photocopies). Care should be taken that lettering and symbols are of a comparable size. The drawings should not be inserted in the text and should be marked on the back with figure numbers, title of paper and name of author. All graphs and diagrams should be numbered consecutively in the text in arabic numerals. Graph paper should be ruled in blue and any grid lines to be shown should be inked black. Illustrations of insufficient quality which have to be redrawn by the publisher will be charged to the author.

11. All unessential tables should be eliminated from the manuscript. Tables should be numbered consecutively in the text in arabic numerals and typed on separate sheets. Any manuscript which does not conform to the instructions may be returned for necessary revision before publication.