



PBR
ISSN 1561-8706

PAKISTAN BUSINESS REVIEW

Indexed and Abstracted by ECONLIT, Journal of Economic Literature
Indexed by EBSCO, USA

HEC Approved "Y" Category Journal

Volume 16 Number 2

July 2014

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Reframing the Path to School Leadership: A Guide for Teachers and Principals

Nancy Lobo

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FACTORS INFLUENCING THE CAPITAL STRUCTURE IN PAKISTAN

H. Jamal Zubairi¹ and Shazia Farooq²

Abstract

Capital structure of a company is the key determinant of its cost of capital which in turn plays a major role in its valuation. The objective of this paper is to determine the influence of growth in gross domestic product, risk free interest rates, profitability, size of firm, growth, liquidity and tangibility of assets on the capital structure. Leverage was taken as the representative for capital structure. The sample comprised of 49 listed companies of the Karachi Stock Exchange (KSE) in Pakistan. Pooled regression analysis was undertaken on the sample companies which were selected from diverse manufacturing sectors including automobiles, cement, industrial engineering, general industrials, food, oil & gas, personal goods, pharmaceutical, construction & materials and household. The most interesting observation of the study is that the borrowing tendency increases in a booming economic scenario when the firms are more optimistic of their business prospects. This provides some insight into decision regarding an opportune timing to undertake investments through leverage. Furthermore, this phenomenon seems to be generally applicable and does not seem to be sector or firm specific.

Keywords: Capital structure, leverage, Pakistan

JEL Classification: G 300

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Introduction

The proportion of equity and debt employed by the firm, to finance its operations and growth, is referred to as its capital structure. Debt can be raised as long term bond issues or notes payable. The capital structure includes short-term debt which is used to finance working capital requirements of a company. Equity is comprised of common stock, preferred stock or retained earnings.

There are pros and cons attached with each type of capital. Although equity capital does not impose fixed payments on the company, it is costlier as compared to the cost of debt due to the presence of issuance cost and shareholders' expectations of higher returns to compensate for the higher risk they have to bear due to the possibility of fluctuations in company's earnings. The various sources of debt capital are by individuals, commercial banks and other financial institutions such as, investment banks, leasing and insurance companies. The borrowing companies get the advantage of a tax-shield on the borrowed funds provided there operating profit is positive. However, borrowings increase the probability or risk of bankruptcy and also carry the cost of financial distress.

The management's decision regarding the capital structure plays a crucial role in determining the risk/reward payoff for the shareholders. This holds good regardless of the firm size, with large companies being as concerned about the capital structure as small ones.

Given its importance in influencing shareholders' wealth, several studies have been conducted to investigate the factors influencing the capital structure. Some studies have focused on company specific variables including sales variability, asset composition, growth rates, corporate taxes, earnings, control issues, market conditions, non-debt tax shields, and attitude of financiers and credit rating agencies. Research has also been conducted on

investigating the impact of macroeconomic variables such as growth in GNP per capita, efficiency of financial markets, prime lending rate, financial liberalization, creditor's rights and enforcement.

The objective of this paper is to determine the influence of growth in gross domestic product, risk free interest rates, tangibility of assets, size of firm, growth, profitability and liquidity on the capital structure of selected manufacturing companies listed on Karachi Stock Exchange (KSE). The purpose of the data analysis was to examine the strength of the relevance of the above mentioned independent variables in influencing the capital structure of selected companies in various manufacturing sectors in Pakistan including automobiles, cement, industrial engineering, general industrials, food, oil & gas, personal goods, pharmaceutical, construction & materials and household.

The Theory and Literature Review

Several studies related to capital structure have been done in the past in view of its importance in determining shareholder returns. The starting point of capital structure studies was perhaps Modigliani and Miller's paper. The Modigliani–Miller (MM) theory of capital structure, propounded in 1958 by Franco Modigliani and Merton Miller, served as the foundation for various schools of thought on capital structure and corporate finance.

MM grouped firms in accordance with the riskiness, i.e. each group representing firms with similar pattern of returns. MM proposition I states that, under the assumption of a perfect capital market, the capital structure has no role in determining firm value, which is determined by using the appropriate discount rate in accordance with its risk class, for capitalizing its expected return. According to the theory, the mean cost of capital of a company is not dependent on its capital structure and is the same as the required rate of return on equity.

MM proposition-2 states that a firm's cost of equity has a linear relationship with the firm's debt/equity ratio. As debt/equity ratio increases the required rate of return on equity increases as well, due to increased risk for holders of equity in a leveraged firm. This proposition is also assumes that the market is perfect.

MM proposition-3 relates to the company value and dividend payments, stating that under some assumptions, the value of a company is unaffected by its dividend policy. In other words, two companies which are exactly similar in asset/liability structure and risk class will not differ in market value even if they follow dissimilar dividend policies.

There are a few principles on which the theory is based, which are applicable under the basic assumptions of either a tax-free world or the situation where taxes are applicable. Under the assumption of a tax-free world, the firm value does not increase with the increase in the use of debt in the capital structure, however if taxes are applicable, the value of the firm increases due to the greater usage of debt financing. The increase is equivalent to the tax shield on interest charges as interest is a tax-deductible expense.

Initially, MM propositions were applied towards company's choices related to the proportion of debt and equity. However, subsequently, the propositions were also applied to maturity of debt, management of risk, company mergers, or carving out a separate company from an existing company, usually referred to as a spin-off.

According to Myers and Brealey (2003), the Proposition 1 represents a highly generalized result. It can be applicable to the selection of any alternate financing instrument rather than only to the trade-off between debt and equity. For instance, MM propounds that company value is not influenced by the fact that the debt acquired is short term or long term. Therefore, they elaborate that due to market imperfections, debt acquired by individuals would carry a higher cost

and could also be riskier for some investors. Due to this reason, a certain class of investors may prefer to buy shares of leveraged firms even if they have to pay a premium. The traditionalists argue that the companies must borrow in order to avail the benefits of this premium. According to Myers and Brealey (2003), the foregoing reasoning is faulty. While there may be investors available who are interested in the equity of a leveraged firm, it is also necessary that these investors represent an unsatisfied demand. They have doubts about satisfaction of investors' demand when a number of leveraged firms might already be available in the market. Furthermore, MM theory is violated if finance managers discover some unsatisfied demand and meet it by launching some alternate financing instruments. They tend to lean towards MM Theory because they feel that discovering unsatisfied demand for which new innovative securities are needed is not an easy task.

These results might seem irrelevant since none of the conditions are met in the real world, but the MM theory is part of corporate finance curriculum because it establishes the importance of capital structure. It points out what factors determine the optimal capital structure and how these affect optimal capital structure. Given the crucial role of capital structure in determining the cost of capital and the possibility of one or more assumptions of MM Theory being violated, several studies have been conducted to determine the factors influencing the debt and equity mix of a firm.

The trade-off theory of capital structure tends to offset the tax benefit of borrowing with the cost of financial distress. Kraus and Litzenberger (1973) presented the bankruptcy model of capital structure which focused on the importance of tax shield. A company's optimal debt ratio is one after which the incremental benefit of the tax shield would be less than the estimated bankruptcy cost. Under this theory, a company would have a higher profitability if it has the appetite to acquire a large proportion of debt to finance its assets which would be stimulated when the corporate tax rate is high enough to make the

high debt option more attractive. The financial distress cost is also affected by the nature of assets the company carries on its balance sheet. According to Myers and Brealey (2003), the theory is able to justify a number of differences in capital structure, but is unable to throw light on the reason for some of the highly successful companies resorting to little or no debt.

As per Grossman and Hart (1982), the agency conflict between the non-owner managers and shareholders is reduced through the employment of debt in the capital structure. This model highlights the cost of bankruptcy in a mainly debt financed company and proves that managers instead of focusing on their salary and other benefits would like to invest in viable investment projects. The likelihood of bankruptcy increases as the manager use more perks. Apparently managers feel threatened by bankruptcy and therefore prefer to focus on maintaining a high quality of investment decisions and would be willing to even take a cut on their perks and benefits.

A competing theory, Pecking Order Theory, was described by Myers (1984) and revisited later in several studies including the ones conducted by Sunder & Myers (1999), Fama & French (2002) and Frank & Goyal (2003). Donaldson (1961) proposed that management favors internally generated funds over external funds in his study of capital structures in large corporations. These findings by Donaldson gave a hint of a pecking order before the theory was presented by Myers. The Pecking Order Theory states that companies prefer to finance new investments through retained earnings, if these are sufficient and prefer to use debt financing over equity financing if additional external funding is needed. Thus it can be seen that less profitable firms may be more leveraged; not because they prefer to have a relatively high debt-to-equity ratio but due to the requirement of high amounts of external financing and since as per the Pecking Order Theory the next choice is debt after the retained earnings have been used for funding a company's investment projects.

Bradley, Jarrell and Kim (1984) concluded from their research that volatility in earnings, R&D investment, and advertising expenditure have a negative as well as a significant relationship with leverage. They further concluded that non-tax shield has a direct relationship with leverage. Furthermore, they also inferred that in capital structure decisions, industry classification is also a pertinent factor.

Rajan and Zingles' (1995) study involved examining how capital structure was impacted by different variables including tangibility of assets, company sales, market/book ratio, and profitability. The relationship with all variables was found to be significant. They concluded that tangibility of assets and company sales had a direct relationship with debt, while market/book value and profitability were indirectly linked with debt.

Booth et al. (2001) analyzed companies selected from underdeveloped countries including Pakistan with a view to examine the applicability of capital structure theory across various countries and to see whether the same variables were equally relevant in both developed and developing countries. The study empirically proved the relevance of the same variables in capital structure decisions, irrespective of the fact that a country was developed or developing. Nonetheless, some consistent variations across various countries were also discovered. This showed that factors specific to a country also mattered, these were identified as GDP growth, inflation rates and the development stage of capital markets. The findings of the study supported Pecking Order Theory since it was observed that the companies which were relatively more profitable also had a lower debt ratio, irrespective of the different ways in which this ratio is calculated.

Fama and French (2002) concluded from the study that debt ratios gradually move towards a specific target level. In other words,

the optimal level of capital structure or the long-term mean for a company is reached after a considerable period of time.

A study by Shah and Hijazi (2004) conducted on listed non-financial companies operating in Pakistan found a direct relationship between size of the firm and its leverage. This indicates big firms resort to greater use of debt. Growth as estimated by the annual increase/decrease in total assets was found to have an inverse relationship with the leverage. It was also found that the profitability and leverage were strongly positively correlated. Company profitability as estimated through net profit before taxes over total assets had an inverse relationship with leverage which conforms to the pecking order theory.

Leary and Roberts (2005) state that firms react to equity price crashes, resulting from additional equity issues, by gradually adjusting the actual leverage to a certain target level. This process may take a time of two to four years. Furthermore, they state that continuous effects of steep equity price crash on leverage are due to optimizing strategies rather than management's indifference to capital structure.

Qureshi and Azid (2006) concluded that the government sector in Pakistan showed preference for debt financing because of questionable corporate governance, attractive financing terms offered by the banks, and lower accountability standards as compared to that prevailing in the private sector.

Chen and Zhao (2006) showed that leverage and market/book value (used as an indicator for growth) had an inverse relationship for companies whose market/book value was comparatively high. However, for companies with relatively low market/book value the relationship of leverage with market/book value is found to be direct. Although, market/book value is commonly used as an indicator of company's growth opportunities in regression analysis, it may not be easy to

draw conclusions regarding the effect of growth opportunities on leverage by using this method.

Kanwar (2007) studied that the capital structure of Pakistan's sugar industry and found a significant relationship of capital structure with return on assets, tangibility of assets, market/book value and company size, however, capital structure's relationship with tax rate was found to be insignificant. It was also observed that sugar companies located in the more developed provinces had higher proportions of debt in the capital structure.

Shah and Khan (2007) examined the explanatory power of tangibility, size, growth, profitability, non-debt tax shield and earnings volatility in determining capital structure of listed non-financial firms in Pakistan for the period 1994-2002. The results of the study, based on pooled regression, supported the trade-off theory with reference to tangibility. However, the findings for volatility of earnings and depreciation were not found to be in line with the trade-off theory. The results for growth confirmed the agency theory while that of profitability supported the pecking order theory. The relationship between company size and leverage was found to be insignificant.

Rafiq et. al. (2008) studied the capital structure of companies belonging to the chemical industry in Pakistan and found that chemical sector firms usually opted for equity financing.

A study conducted by Mahmud et.al (2009) attempted to find the factors that have a bearing on company's capital structure in Malaysia, Japan, and Pakistan. The study reveals that a significant relationship exists between capital structure and per capita GNP growth in Japan and Malaysia such that higher economic growth leads to an increase in long term debt. The findings for Pakistan were different indicating that the use of higher leverage and inefficient operations would increase the probability of bankruptcy of the Pakistani companies. They concluded that the prime lending rate was

a key determinant of credit in Japan and Malaysia. Furthermore, the analysis revealed that financial liberalization influenced capital structure in all the three countries.

Afza and Hussain (2011) examined the determinants of capital structure for firms in Automobile, Engineering, and Cable and Electrical Goods Sectors in Pakistan. The debt/total assets ratio was chosen as an indicator of leverage, the independent variable, whereas the independent variables included company size, profitability, tangibility of assets, cost of debt, taxes, liquidity and non-debt tax shield. The empirical results revealed that sound liquidity and substantial depreciation allowances preferred accumulated earnings for funding growth. Their next choice for financing growth was debt while equity financing was the last choice. Thus these results were in line with the Static Tradeoff and Pecking Order Theories

Problem, Methodology and Sample

This section includes the description of problem, variables, hypotheses and the methodology employed for hypotheses testing. Different measures of the variables and sources of data are also given.

Problem

The paper follows the framework of studies of Rajan & Zingles (1995) and Shah & Hijazi (2005) that used tangibility of assets, firm size, growth and profitability of the firm as explanatory variables to determine the degree of leverage. In addition the influence of macroeconomic variables on capital structure was also examined.

Variables

The following is a brief discussion of the variables employed to estimate the dependent variable i.e. the capital structure and the independent variables including profitability, size of firm, growth, liquidity and tangibility of assets.

Dependent Variable

Leverage has been taken as a proxy for capital structure (CS), the dependent variable. It refers to the percentage of assets financed by debt. Leverage should be calculated by taking total debt as a percentage of total assets.

$$\text{Leverage} = \frac{\text{Total Debt}}{\text{Total Assets}} \text{ or } \frac{\text{Long Term Debt}}{\text{Total Assets}} \quad (\text{I})$$

Independent Variables

1. Growth in Gross Domestic Product (GDP)

Growth in real gross domestic product was taken as a proxy for economic growth in the country.

2. Risk Free Interest Rate (RF)

Yield on 6-month treasury bill has been taken as the proxy for risk free rate in the country.

3. Tangibility of assets (TG)

Tangibility of assets refers for the fixed assets of a company. Tangibility of assets was calculated as the ratio of fixed assets to total assets, taking the total gross amount of fixed assets as the numerator.

$$\text{TG of Assets} = \frac{\text{Fixed Assets}}{\text{Total Assets}} \quad (\text{II})$$

4. Firm Size (SZ)

Size (SZ) of the firm was measured by the taking the natural log of the sales to smoothen the variation over the periods considered.

5. Growth (GT)

Growth was calculated as a percentage of increase in total assets over the period of years.

6. Profitability (PF)

Profitability was calculated using RO and ROE methods, both on before tax basis. The two measures were referred to a PF_1 and PF_2 respectively. Both the methods were used in calculating profitability and tested separately with the dependent variable.

$$\text{Return on Assets} = \text{Profit Before Tax} / \text{Total Assets} \quad (\text{III})$$

$$\text{Return on Equity} = \text{Profit Before Tax} / \text{Total Equity} \quad (\text{IV})$$

7. Liquidity (LQ)

Quick ratio was used a proxy to measure the liquidity of the company. It is also known as acid test as it presents a more stringent picture of the company's ability to meet short term obligations.

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities} \quad (\text{V})$$

Research Methodology

Based on the theoretical frame work used by Rajan & Zingales (1995) and past empirical results, the following hypotheses were developed to examine the impact of growth in GDP, risk free rate, tangibility, size of firm, growth, profitability and liquidity on leverage.

H_{01} = Growth in GDP is not positively correlated with leverage

H_{a1} = Growth in GDP is positively correlated with leverage

H_{02} = Risk Free Interest is not negatively correlated with leverage

H_{a2} = Risk Free Interest rate is negatively correlated with leverage

H_{03} = Tangibility of assets is not positively correlated with leverage

H_{a3} = Tangibility of assets is positively correlated with leverage

H_{04} = Size of a firm are not positively correlated with leverage

H_{a4} = Size of a firm are positively correlated with leverage

H_{05} = Growth of a firm is not positively correlated with leverage

H_{a5} = Growth of a firm is positively correlated with leverage

H_{06} = Profitability of the firm is not negatively correlated leverage

H_{a6} = Profitability of the firm is negatively correlated leverage

H_{07} = Liquidity of the firm is not negatively correlated leverage

H_{a7} = Liquidity of the firm is negatively correlated leverage

The above stated hypotheses were tested by running a panel regression of the data covering the years 2000-2010. Panel regression was preferred as it can analyze both cross-sectional and time series data. Both time series and cross-sectional data were pooled under a single column with the assumption that there existed no substantial cross-sectional or inter temporal implications. The econometric model covering all the selected variables is given below:

$$CS = \beta_0 + \beta_1 (GDP) + \beta_2 (RF) + \beta_3 (TG) + \beta_4 (SZ) + \beta_5 (GT) + \beta_6 (PF) + \beta_7 (LQ) + \varepsilon \quad (VI)$$

Where,

CS = Leverage

GDP = Growth in GDP

RF = Risk Free Rate

TG = Tangibility of Assets measured by percentage of fixed assets

SZ = Size of the Firm measured by Log of Sales

GT = Growth Rate measured by change in total assets

PF = Profitability measured by ROA and ROE

LQ=Liquidity measured by Quick Ratio

ε = the error term with zero mean and constant variance

The study is limited to investigating factors influencing the capital structure of 49 companies listed on the Karachi Stock Exchange, belonging to different manufacturing sectors automobiles, cement, industrial engineering, general industrials, food, oil & gas, personal goods, pharmaceutical, construction & materials and household. Due to non-availability of data for some companies, the sample yielded 333 observations. The study is different from others conducted on

determinants of capital structure in Pakistan in terms of the time period under consideration.

Empirical Results

In this section, we present the results and the interpretation of the regression tests. The results have also been explained in the light of the relevant financial theories discussed above.

Regression Analysis Results

Using the pooled regression technique, we ran the regression of leverage with growth in GDP, risk free rate, tangibility of assets, firm size, growth, profitability using ROA and liquidity. The estimated results are reported in Table 1.

Table 1:
Pooled Regression Results Using ROA as Proxy for Profitability

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	3.840533	0.554338	6.928142	0.0000
RF	1.799883	0.360611	4.991202	0.0000
TG	0.084597	0.043278	1.954747	0.0515
SZ	0.028269	0.005798	4.875711	0.0000
GT	0.034548	0.043720	0.790207	0.4300
PFI	-0.350918	0.087643	-4.003944	0.0001
LQ	-0.075868	0.015270	-4.968416	0.0000
R-squared	0.074650	Mean dependent var		0.530210
Adjusted R-squared	0.057619	S.D. dependent var		0.199563
S.E. of regression	0.193729	Akaike info criterion		-0.423918
Sum squared resid	12.23505	Schwarz criterion		-0.343867
Log likelihood	77.58239	Durbin-Watson stat		0.884369

Pooled regression was run taking leverage as the dependent variable against tangibility of assets, firm size, growth, profitability using ROE and liquidity. The estimated results are reported in Table 2.

Table 2:
Pooled Regression Results Using ROE as Proxy for Profitability

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	3.859929	0.566349	6.815460	0.0000
RF	1.711496	0.367586	4.656045	0.0000
TG	0.088258	0.044218	1.995980	0.0468
SZ	0.027909	0.005962	4.680877	0.0000
GT	0.047347	0.044525	1.063381	0.2884
PF2	-0.080754	0.046012	-1.755091	0.0802
LQ	-0.096929	0.014422	-6.721010	0.0000
R-squared	0.038232	Mean dependent var		0.530210
Adjusted R-squared	0.020531	S.D. dependent var		0.199563
S.E. of regression	0.197504	Akaike info criterion		-0.385317
Sum squared resid	12.71657	Schwarz criterion		-0.305266
Log likelihood	71.15531	Durbin-Watson stat		0.861238

It can be observed from both Tables 1 and 2 that R-square values are estimated at around 7%, and 4% respectively, indicating that the independent variables do not have a significant explanatory power in determining the movement in leverage.

The empirical results indicate that a firm's leverage is positively and significantly linked to GDP growth rate. This implies the rejection of the null hypothesis which says that GDP growth rate is not positively correlated with leverage. It is remarkable that the highest coefficient is that of GDP in both tables. A one percentage increase in GDP leads to almost 3.86% increase in leverage. It could be interpreted from the result that the firms tend to borrow more when the economy is booming since they are more confident of the business environment and their repayment capability.

It is observed from both the tables that the risk free rate is positively and significantly correlated with leverage. The null hypotheses that the risk free rate is not negatively correlated with leverage, therefore, is rejected. This result could be explained in light

of the above mentioned findings with respect to growth in GDP. The risk free rate is likely to increase in booming economy to curb inflation when firms are willing to resort to higher leverage due to confidence in repayment capacity.

The model also indicates a statistically significant direct relationship between tangibility of assets and leverage. On the basis of P-value of almost 0.05, we reject the null hypothesis that the size of the firm is not positively correlated with leverage. This implies that firms with greater proportion of fixed assets are usually large in size and hence are likely to prefer external financing in the form of debt.

The size of the firm as measured by log of sales is observed to have a direct and significant relationship with leverage. Hence, we have rejected the null hypothesis that the size of the firm is not positively correlated with leverage. The interpretation of these findings could be that firms are likely to borrow more to grow their size through higher turnover. Furthermore, the findings may also imply that larger firms are more confident of their repayment capability and hence tend to borrow more.

Growth as measured through increase in total assets was observed to have a positive but statistically insignificant relationship as shown in Tables 1 and 2. Hence, the null hypothesis that the growth of the firm is positively correlated with leverage is not rejected.

The relationship between leverage and profitability measured through ROA was found to be significant and negative as seen in Table 1. Hence, in this case the null hypothesis that the profitability is not negatively correlated with leverage is rejected. However, we are unable to reject this hypothesis if ROE is taken as a measure of profitability at 95% confidence interval, given P-Value of 0.0802 exhibited in Table 2. The results support Pecking Order Theory when ROA is used as a measure for profitability, indicating that firms are

likely to reduce their reliance on debt as internal cash generation increases.

The model reveals that the liquidity of the firm has a negative and a statistically significant relationship with leverage. We reject the null hypotheses that the liquidity of the firm is not negatively correlated with leverage. The results again support Pecking Order Theory since higher liquidity implies higher internal cash generation which leads to lower debt levels.

Diagnostic Checking

The Durbin Watson values in both tables were below 1 indicating an autocorrelation issue in error terms. To further check the reliability of the model, the Augmented Dickey Fuller (ADF) test was run on the estimated residuals of the model as given in Equation VI.

Table 3:
Augmented Dickey –Fuller Test Results

Null Hypothesis: RESID1 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=16)

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic				
Test critical values:			-9.493068	0.0000
	1% level		-3.449857	
	5% level		-2.870031	
	10% level		-2.571363	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESID1(-1)	-0.431170	0.045419	-9.493068	0.0000
C	0.004185	0.008868	0.471859	0.6373
R-squared	0.214507	Mean dependent var		0.000768
Adjusted R-squared	0.212127	S.D. dependent var		0.181898
S.E. of regression	0.161457	Akaike info criterion		-0.803149
Sum squared resid	8.602565	Schwarz criterion		-0.780227
Log likelihood	135.3228	F-statistic		90.11834
Durbin-Watson stat	2.108047	Prob(F-statistic)		0.000000

The ADF test results confirm that the estimated residuals has a unit root, thus justifying the rejection of the null hypothesis. It can therefore, be concluded that the residuals are stationary and there exists no significant variation in their mean and variance over the time period under review.

Conclusions

The study used a sample data of 49 firms listed on the Karachi Stock Exchange belonging to different manufacturing sectors. The data pertained to the years 2000-2010. However, the number of observations was 333 due to non-availability of data. Two pooled regressions were run between leverage and independent variables, one using ROA as measure profitability and other ROE. The other independent variables included growth in GDP, risk free interest rate, tangibility of assets, size, growth and liquidity. Low R- square of both regressions imply that the independent variables together have low explanatory power in determining the variation in leverage. Furthermore, the results regarding the significance of individual variables are summarized below:

- Growth in GDP has a positive and significant impact on leverage.
- Risk free interest rates have a positive and significant impact on leverage.
- Tangibility of assets is positively and significantly correlated with leverage.
- Size of the firm as measured using log of sales has a positive and significant effect on leverage.
- Growth as measured by change in total assets has a positive but insignificant impact on leverage.
- The relationship between profitability based on ROA and leverage is negative and significant. However, this relationship becomes insignificant but remains negative if ROE is used as a proxy for profitability.

▪ Liquidity and leverage were found to be negatively and significantly correlated with each other.

The robustness of the findings were tested by using the Augmented Dickey Fuller test to the residual series obtained from the model. It was concluded that the linkage of leverage to the independent variables was stable over the examined sample period.

The results regarding profitability and liquidity support the Pecking Order Theory. The findings regarding tangibility, sales and profitability are in line with those of the study conducted by Rajan and Zingales (1995). The findings regarding size and profitability also support the findings of Shah and Hijazi (2005).

It could be concluded from the findings of the study that the manufacturing firms in Pakistan tend to borrow more in a booming economic scenario when they are more optimistic of the business prospects. Furthermore, leverage increases with the tangibility of assets and size of the firm since larger firms are more confident of their repayment capability and are likely to borrow more. Growth in profitability reduces the reliance on debt due to higher internal cash generation which is given priority in meeting funding requirement.

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LINKING THE COMPOSITION OF GOVERNMENT SPENDING AND POVERTY IN PAKISTAN: AN ARDL APPROACH

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Abstract

In this paper, we examine the linkages among various categories of government expenditures and poverty in Pakistan over the period 1972-2012. We employ Autoregressive Distributed Lag (ARDL) model with the intention to determine the robustness of long-run relationship among various categories of government expenditures and absolute level of poverty. Moreover, we use Error Correction Mechanism (ECM) to analyze the short run relationship. Our results show that in the long run, the developmental government expenditures reduce poverty where as current expenditures increase poverty in Pakistan. The developmental government expenditures increase employment generation and improve the standard of living. The negative and statistically significant value of the coefficient of Error Correction term shows that long run equilibrium can be achieved in less than two years of period. We recommend in the light of our results that the government should take productive measures to control its fiscal deficit and prioritize its expenditures in productive sectors that may enhance private investment and would help to alleviate the level of absolute poverty in the country.

Keywords: Poverty, Government Expenditures, ARDL.

JEL Classification: H 530

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Introduction

Fiscal policy can be used as a deadly weapon against poverty. Poverty alleviation has remained the focus of attention for the government for the last many years in Pakistan. Although the economy of Pakistan has achieved an impressive growth, the country is still facing the daunting challenge of narrowing down the gap between the upper and the lower classes of the society. Prudent government spending plays a successful role in this regard.

The main responsibilities of the political economy include allocation of resources, relocation and stabilization of the economy. The prudent use of the government expenditures in accomplishment of the above mentioned tasks leads to reduction in poverty (Musgrave and Musgrave 1976). Most of the governments in developing countries are acutely involved in poverty reduction programs. The main weapon, the governments can use in order to reduce the poverty level is in fact the best choice of government expenditures (Benneth 2007).

The efficacy of government expenditures in reducing poverty is a controversial issue and requires further consideration. There are few studies which have attempted to focus upon tracing out the link between government spending and poverty in developing countries. They have come up with a conclusion that overall government expenditures significantly reduce poverty. However, the choice of government expenditures is of great concern because of their different impacts on poverty and economic growth (Elias 1985; Bidani and Ravallion 1997; Fan et al. 1999, 2000, 2002, 2004; Lopez 2005).

Government expenditures can affect poverty via different channels. A sound fiscal policy contributes towards the macroeconomic balances, external as well as internal deficits and general price level in the economy which, by increasing real income, directly affect standard of living of the masses. It also indirectly affects

the standard of living by enhancing economic growth (Paternostro et al. 2007). An increase in educational and health expenditures results in quality and skilled human capital, which accelerate economic growth and endows the general masses with improved living standard (Barro 1992; Romer 1986). An increase in development expenditures leads to high investment and productivity in the country that increase income level and hence, improves the standard of living in the long run. Moreover, a rise in development expenditure increases the private investment that increases the availability of goods and services for the general masses, which increase the productivity and hence, per capita income increases.

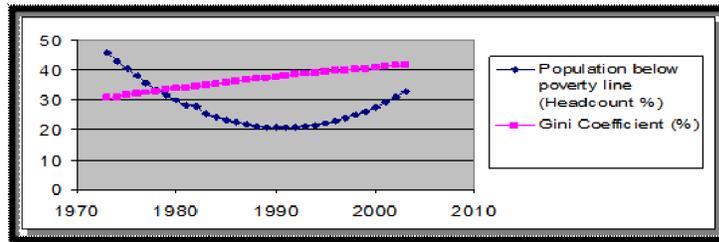
It is not effortless to quantify the effects of government spending on growth and distribution. However, the composition of government spending has turned out to be the most important tool by which development organizations attempt to gauge economic development (Paternostro et al. 2007). For example, in case of India, according to Jha and Biswal (2001), per capita income, development expenditure, health expenditure and education expenditures are the most important factors affecting poverty and income inequality. Prasetya and Pangestuty (2012) found that in case of Indonesia, government expenditure on health and education sectors by means of each sector's output have a significant effect on economic growth and ultimately on rural poverty. According to Rao (1999), high level of expenditures on rural infrastructure, education and health accelerate the pace of economic growth and reduce the absolute level of poverty by increased access to markets, reinforced mobility of labor and rapid industrialization. Government investment in education, irrigation and Research and Development (R & D) may have a strong effect on long-term economic growth, poverty and income disparity (Fan et al. 2002 and Fan 2003).

Some studies in Pakistan have focused on poverty trend, its causes and impact on macroeconomic outcomes. For instance, Akhtar et al (1999) modeled poverty trends in Pakistan. Rashid et al (1997),

Malik (1988) studied the incidence of poverty. Mehmood and Sadiq (2010) found long run relationship between fiscal deficit and absolute poverty. However, the issue of linking the composition of public expenditures with poverty has not been so far investigated in the context of Pakistan. Therefore, it is a great policy significance to examine the links between public spending and the rate of absolute poverty in the perspective of Pakistan's economy. Additionally, the importance of fiscal policy in stimulating the economic condition in the long run is a matter of great concern and needs to be scrutinized further. The paper is further structured as follows.

Figure 1:

Trend in Poverty and Income Inequality



The next section presents the data, econometric models and the framework for analysis. Section three entails the empirical results and conclusion and policy recommendations are presented in the final section.

Modeling, Data and Methodological Framework

In order to examine the impact of development expenditure on poverty, we estimate the following two models¹:

$$\begin{aligned} \text{POVR}_t &= \lambda_0 + \lambda_1 \text{POVR}_{t-1} + \lambda_2 \text{INEQ}_t + \lambda_3 \text{NFL}_t + \lambda_4 \text{DEX}_t + \lambda_5 \text{CEX}_t + \lambda_6 \text{PRINV}_t + \mu_t \dots (A) \\ \text{POVR}_t &= \lambda_0 + \lambda_1 \text{POVR}_{t-1} + \lambda_2 \text{INEQ}_t + \lambda_3 \text{NFL}_t + \lambda_4 \text{DEX}_t + \lambda_5 \text{CEX}_t + \lambda_6 \text{PRINV}_t + \\ &\lambda_7 (\text{DEX} * \text{INEQ})_t + \mu_t \dots (B) \end{aligned}$$

¹ We performed sensitivity analysis in order to choose the robust variables, which are not sensitive to different econometric techniques.

Whereas,

POVR = Head count Index

INEQ = Gini coefficient

DEX = Log of Development Expenditures

CEX = Log of Current Expenditures

NFL = Inflation rate

PRINV = Log of Private Investment

In the second model, we include the interaction term of INEQ and DEX with the purpose to gauge the effectiveness of development expenditures in the presence of high inequality. The data for this analysis are taken from Pakistan's Economic Survey; Various Issues.

Methodology

Testing for Unit Root

In order to deal with detecting the order of integration, we make use of the Phillips –Perron (PP)² unit root tests. The PP test takes into account the adjustment of Dickey-Fuller (DF)³ for autocorrelation between the error terms away from the regression practice. The critical values belong to PP, have distribution contemporary with those belong to DF. The PP test aims to fit the following regression.

$$Y_i = \alpha + \rho Y_{i-1} + \theta t + \epsilon_i \dots \dots \dots 4)$$

Resultantly, two statistics namely Z_ρ and Z_τ are calculated as given below

$$Z_\rho = n(\hat{\rho}_n - 1) - \frac{1}{2} \frac{n^2 \hat{\sigma}^2}{s_n^2} (\hat{\gamma}_n^2 - \delta_{0,n}) \dots \dots \dots (4.1)$$

$$Z_\tau = \sqrt{\frac{\delta_{0,n}}{\hat{\gamma}_n^2}} \frac{\hat{\rho}_n - 1}{\hat{\sigma}} - \frac{1}{2} (\hat{\gamma}_n^2 - \delta_{0,n}) \frac{1}{\hat{\gamma}_n} \frac{n \hat{\sigma}}{s_n} \dots \dots \dots (4.2)$$

² Phillips and Perron (1988)

³ Dickey and Fuller (1981)

Where

$$\hat{\delta}_{j,n} = \frac{1}{n} \sum_{i=j+1}^n \hat{\mu}_i \hat{\mu}_{i-j} \dots\dots\dots (4.3)$$

$$\hat{\gamma}_n^2 = \hat{\delta}_{0,n} + 2 \sum_{j=1}^q \left(1 - \frac{j}{q+1}\right) \hat{\delta}_{j,n} \dots\dots\dots (4.4)$$

$$s_n^2 = \frac{1}{n-k} \sum_{i=1}^n \hat{\mu}_i^2 \dots\dots\dots (4.5)$$

‘ μ_i ’ is the residual retrieves from OLS, ‘k’ stands for the number of covariates in the regression analysis, ‘q’ represents the number of Newey-West lags to be used in order to calculate $\hat{\gamma}_n^2$ and finally ‘ $\hat{\sigma}$ ’ is the standard error of ‘ $\hat{\rho}$ ’. In equation 4.3, if ‘j’ becomes zero, it evidences of no autocorrelation among the error terms otherwise if ‘j’ takes the value greater than zero, it indicates the covariance between error terms j periods away from each other. In equation 4.4, ‘q’ represents the number of considered lagged covariances. For instance, if ‘q’ becomes zero, the second term of the right hand side in equation 4.4 becomes zero and $\hat{\gamma}_n^2$ becomes equal to $\hat{\delta}_{0,n}$. Consequently, $Z\rho$ becomes equal to $n(\hat{\rho}_n - 1)$ and $Z\tau$ becomes equal to $(\hat{\rho}_n - 1)/\hat{\sigma}$ which are the same statistics as calculated by Dickey-Fuller (DF) test.

In this paper the reason behind using Phillips-Perron (PP) instead of Dickey-Fuller (DF) is that DF did not provide us with fruitful results as PP did particularly in case of development expenditure and current expenditure. It gives a clear evidence of the existence of autocorrelation between the error-terms in case of development expenditure and current expenditure which the DF test did not take into account and consequently its results as compare to PP appeared to be unauthentic.

Autoregressive Distributed Lag Model (ARDL)

In order to trace out the presence of a long run relationship among the variables prescribed earlier in equation A and B, we bring Autoregressive Distributed Lag model (ARDL) into use. ARDL is the econometric technique for cointegration analysis popularized by Pesaran (1997), Pesaran and Smith (1998), Pesaran and Shin (1999) and Pesaran et al (2001) which has various plus points in comparison with other cointegration techniques⁴. The following model provides the description of ARDL for equation A⁵:

$$\begin{aligned} \Delta POVR_t = & \alpha + \beta_1 \sum_{i=1}^p \Delta POVR_{t-i} + \beta_2 \sum_{i=1}^p \Delta INEQ_{t-i} + \beta_3 \sum_{i=1}^p \Delta NFL_{t-i} + \beta_4 \sum_{i=1}^p \Delta \log (DEX)_{t-i} \\ & + \beta_5 \sum_{i=1}^p \Delta \log (CEX)_{t-i} + \beta_6 \sum_{i=1}^p \Delta \log (PRINV)_{t-i} + \gamma_1 POVR_{t-1} + \gamma_2 INEQ_{t-1} \\ & + \gamma_3 NFL_{t-1} + \gamma_4 DEX_{t-1} + \gamma_5 CEX_{t-1} + \gamma_6 PRINV_{t-1} + \mu_t \dots \dots \dots (1) \end{aligned}$$

After estimating model (1), if we come across any evidence about the existence of long relationship through testing for the null hypothesis of $\gamma_1=\gamma_2=\gamma_3=\gamma_4=\gamma_5=\gamma_6=0^6$, the following long run model will be estimated so as to find out the long run coefficients.

$$\begin{aligned} POVR_t = & \alpha + \beta_1 \sum_{i=1}^p POVR_{t-i} + \beta_2 \sum_{i=1}^p INEQ_{t-i} + \\ & \beta_3 \sum_{i=1}^p NFL_{t-i} + \beta_4 \sum_{i=1}^p \log (DEX)_{t-i} + \beta_5 \sum_{i=1}^p \log (CEX)_{t-i} \\ & \beta_6 \sum_{i=1}^p \log (PRINV)_{t-i} + \mu_t \dots \dots \dots (2) \end{aligned}$$

Finally, we estimate the following error correction model in order to estimate the short run coefficients along with the pace of adjustment.

⁴ First, in contrast to other cointegration techniques, ARDL does not necessitate all the variables to be integrated of similar order. That is ARDL approach can be used whether the regressors are integrated of order one i.e. I(1), order zero I(0) or fractionally integrated. Second, ARDL is applicable even for small sample sizes, while other cointegration techniques are sensitive to the sample size. Third, even in the presence of endogenous regressors, ARDL gives unbiased estimates of the long run model and valid t-statistics (Harris and Sollis, 2003). Fourth, after appropriate selection of lag length, ARDL allows us to apply a simple Ordinary Least Square (OLS) method in order to obtain our estimates for the cointegration relationship.

⁵ Similarly for equation B with a slight difference that the interaction term of DEX and INEQ is to be incorporated in equation (1).

⁶ It means there is no any long run relationship in the variables under study.

$$\Delta POVR_t = \alpha + \beta_1 \sum_{i=1}^p \Delta POVR_{t-i} + \beta_2 \sum_{i=1}^p \Delta INEQ_{t-i} + \beta_3 \sum_{i=1}^p \Delta NFL_{t-i} + \beta_4 \sum_{i=1}^p \Delta \log(DEX)_{t-i} + \beta_5 \sum_{i=1}^p \Delta \log(CEX)_{t-i} + \beta_6 \sum_{i=1}^p \Delta \log(PRINV)_{t-i} + \delta ECM_{t-1} + \mu_t \dots \dots \dots (3)$$

Where ‘δ’ is the coefficient of the error correction term with the characteristic that the deviation of the current state from its long run relationship will be fed into its short run dynamics. Its value is aimed to be negative and statistically significant.

Estimations and Results

Testing the hypothesis of unit root

Table 1 presents the summary of Phillips Perron (PP) unit root test results, which shows that the variables are integrated with different orders. Consequently, we apply Auto Regressive Distributive Lag Modal (ARDL) in light of description given in footnote 5.

Table 1:
Unit Root results

Variables	Phillips- Perron	
	Level	1 st diff:
POVR (Drift & Trend)	-0.10	-0.83*
INEQ (Drift & Trend)	-0.40*	-1.31*
DEX ((Drift & Trend)	0.42	-2.91*
CEX (Drift & Trend)	0.10	-0.63*
NFL (Drift)	-0.63*	-1.19*
PRINV (Drift & trend)	-0.03	-0.88*

(*) shows significance at 1% level of significance

Lag Selection for the ARDL

Normally, the selection of appropriate lag length is carried out through unrestricted Vector Auto Regressive (VAR) where the respective value of Schwartz Bayesian Criterion (SBC), Akaike Information Criterion (AIC) or Hannan-Quinn information criterion (HQ) gives its minimum value. Therefore, the order of lag length, using unrestricted VAR through (SBC), (AIC) and (HQ) is obtained whose results are summarized by the table presented below:

Table 2:
Selection Lag Length & Bound Testing for Cointegration⁷

Lag	AIC	SBC	HQ	Wald-Test
0	11.39	11.44	11.28	3.126**
1	3.85	5.84	4.75	3.001**
2	3.18 [#]	5.56 [#]	4.21 [#]	4.179*

(#) represents the lag length selected by the criterion (*) and () represent significance at 1% and 5% respectively according to Narayan (2005)**

According to the table, AIC, SBC and HQ declared two lags for the model to be incorporated. Therefore we will consider the incorporation of two lags as suggested by all of the criteria. After identifying the appropriate magnitude of lags, we first performed ARDL bound testing by first regressing equation (1) through OLS and then tested for the null hypothesis given in section 2.2. After incorporating two lags, the F-Statistic of 4.174, calculated via Wald-Test is far greater than the upper bound critical value provided by Narayan (2005). This allows us not to accept the null hypothesis of no cointegration and conclude without any hesitation that there exists long run relationship among variables in the model. After having found the evidence regarding long run relationship we estimated equation (2) and equation

⁷AIC: Akaike information criterion, SC: Schwarz information criterion and HQ: Hannan-Quinn information criterion

(3) respectively to find out the long run and short run coefficients. The estimated long run coefficients are given in Table 3.

Table 3:

Estimated Long Run Coefficients using the ARDL Approach⁸

Dependent Variable POV	Model (A)	Model (B)
<i>Explanatory Variables</i>	<i>Coefficients</i>	<i>Coefficients</i>
Intercept	67.55*	-72.43*
POVR(-1)	0.83*	0.87*
INEQ	0.08**	2.91*
NFL	0.07*	0.07*
DEX	-1.03*	-6.14*
DEX(-1)	-1.97*	-0.27
CEX	0.63**	1.40**
PRINV	-1.68*	-2.24*
PRINV(-1)	-2.94*	-2.96*
INEQ*DEX	---	0.18**
$R^2 = 0.95$, Adjusted $R^2 = 0.94$, F-statistics = 72.489*, D.W. Statistics = 2.19		

Our results indicate that all the variables hold their expected signs along with significant coefficients. The overall results show that development government expenditures determine poverty in Pakistan after controlling other variables. The negative coefficient of DEX reveals the fact that productive government expenditures increase employment generation and improve the standard of living. Contrary to DEX, CEX holds a positive sign and is significant at 5 percent level of significance which is attributed to the fact that non productive

⁸The individual lag order for variables in the model is (1, 0, 0, 1, 0, 1), selected on SBC.

government expenditures decrease employment generation and leaves people with lower standard of living. The results indicate that poverty goes down in response to an increase in private investment. This reveals the fact that as the private investment goes up, as a result it leads to the availability of goods and services for the general masses, which increase the productivity and hence, per capita income increases. The positive and significant value of POVR (-1) shows that absolute poverty depends on the level of poverty in the previous year. The main reason behind the positive coefficient of INEQ is that income inequality discourages individuals from doing hardworking. The unequal distribution of asset ownership leads to an unequal access of citizens to basic education, health facilities and justice and ultimately, these factors lead to poverty. The cross term of INEQ and Development Expenditures shows that development expenditures positively affect poverty in the presence of skewed income distribution. With the aim to figure out short run dynamics we utilized Error Correction Mechanism (ECM) represented by equation 3. Table 4 below provides a complete description of the ECM results.

Table 4:

Error correction illustration of ARDL model

Model (1) Dependent Variable ΔPOV		Model (2) Dependent Variable ΔPOV
Intercept	0.21	0.24
D(POVR(-1))	0.68 *	0.69*
D(INEQ)	0.25***	0.25***
D(NFL)	0.09**	0.08**
D(DEX)	-2.70*	-2.79*
D(CEX)	1.06**	0.51**
D(PRINV)	-7.56	-7.39
D(INEQ)*D(DEX)	--	3.51***
EC(-1)	-0.61***	-0.62***
R ² = 0.92, Adjusted R ² = 0.89, F-statistics = 108.26*, D.W. Statistics = 1.86		

(*), (**) and (***) show significance at 1%, 5% and 10% level of significance.

The error correction term ECM_{t-1} estimated being highly significant is holding a negative sign which is an indication towards the existence of cointegration among the variables prescribed earlier in equation A. The lag error correction coefficient is -0.61, suggesting that disequilibrium of roughly 61% is corrected within the existing year. Furthermore, the results also advocate that in the short run POVR (-1), INEQ, NFL, DEX and CEX have significant impact on poverty, whereas changes in PINV are insignificant in the short run.

4. Concluding remarks and policy recommendations:

Reduction in poverty has been the fundamental objective of the government for the past many years in Pakistan. We examine the linkages among various categories of government expenditures and poverty in Pakistan over the period of 1972-2012. We use Autoregressive Distributed Lag (ARDL) model to determine the robustness of long-run relationship among various categories of government expenditures and poverty. To analyze short run relationship, we use Error Correction Mechanism (ECM). Our results demonstrate that development government expenditures reduce poverty in Pakistan. The positive coefficient of DEX reveals the fact that productive government expenditures increase employment generation and improve the standard of living. Contrary to DEX, the sign of CEX is positive and significant at 5 percent level of significance. This is due to the fact that non productive government expenditures decrease employment generation and increase poverty. The significant and positive coefficient of the cross term of INEQ and DEX shows that development expenditures positively affect poverty in the presence of income inequality. The error correction term ECM_{t-1} estimated, being highly significant, is holding a negative sign which is an indication towards the existence of cointegration among the variables prescribed earlier in equation A. The feedback coefficient is -0.61 which is suggesting that disequilibrium of roughly 61% is corrected within the present year.

This study recommends that the federal government should take courageous steps to control fiscal deficit by reducing non productive expenditures in order to control the absolute level of poverty and to narrow down the gap between the upper and lower class of the society. High priority should be given to productive government expenditure that may alleviate absolute poverty in the country.

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THE IMPACT OF LEARNING ORGANIZATION PRACTICES ON ORGANIZATIONAL EFFECTIVENESS

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Abstract

This study has explored the impact of learning organization practices on organizational commitment and organizational effectiveness. The research questions were, "What are the effects of learning organization practices on organizational effectiveness? and does organizational commitment mediate the relationship of learning organization practices and organizational effectiveness?" A conceptual model has been developed in the light of existing reviewed literature to address these research questions. The population of this research study was Cellular companies (05). Using Convenience sampling strategy, a research questionnaire was circulated among a sample of 400 middle/functional managers/knowledgeable workers of Mobilink, Ufone, Zong, Telenor and Warid. The relationships of variables were tested using Pearson Correlation and Regression Analysis. The mediating effect of organizational commitment was tested using the Barron & Kenny's approach of mediation analysis. The results suggested that the three study variables have a strong positive relationship with each other. Organizational commitment has also found to possess a partial mediating impact on the relationship of learning organization practices and organizational effectiveness.

Keywords: Learning Organization Practices, Organizational Commitment, Organizational Effectiveness.

JEL Classification: Z000

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Introduction

Hunting the new strategies to grab a huge market share has always been the major challenge for organizations striving in competitive dynamics. In today's world of globalization, the increased technological advancement has further fueled the competition by making the market access easier to multi-national corporations. Furthermore, with the growing competition, organizations are entrusted with the actualization of the fact that survival lies with the increased need for learning triggering effectiveness at each strategic level of organization that further contribute to business success (Escring-Tena & Bou-Llusar, 2005).

Generally, it is argued that an organization has to acquire knowledge/skill through learning that will help it in improving the productivity and performance. The idea of learning in organizations was first coined by Argyris and Schon (1974). Their groundbreaking concept of single/double loop learning, reflection-in-action, espoused theory, all have become the significant concepts of business education (Argyris, 1982, 1999; Argyris & Schon, 1978, 1996). Armstrong & Foley (2003) showed learning as a pre-requisite for most successful organizations for gaining competitive advantage. For organizations striving for gaining organizational effectiveness through strategy alignment, there always lies the dire need to earn an organizational commitment by promoting learning practices within the organization. Garvin, Edminson & Gino (2008) has also defined learning organization as a place where employee acquire, generate and share what is learned to achieve their organizational goals. The success of an organization in learning process depends upon the organization's capacity to absorb the new they acquired knowledge and this absorption capacity is reflected by the individuals who own organizational existing knowledge (Kim, 1998). However, learning must be integrated with the factor of organizational commitment in order to achieve business success (Marsick & Watkins, 1999). Therefore, this research study is aimed to explore the possible relationships between three major study variables of learning organization practices, organizational commitment

and organizational effectiveness specifically in the context of Telecom sector of Pakistan.

In Pakistan the Telecom industry, the cellular companies are continually increasing with great momentum, especially their mobile subscriber base and had reached to 112.8 million at the end of December 2011 (PTA, 2011). It was observed that the cellular companies remained stable in the financial year 2011 as they are reported to face diverse, competitive challenges in the quest for grabbing a big piece of the market share (PTA, 2011). Besides the financial institutions, the inclusion of other public sector organizations in this industry for the introduction of new product/services, are growing all the trends that consequently left the existing players with the realization of the fact that organizational effectiveness is badly needed in order to sustain position in the existing competitive market. In this way, it may be believed that learning must be integrated with a factor of organizational commitment in order to achieve the business success (Marsick & Watkins, 1999).

The telecommunication industry is believed to be the fastest growing sectors in Pakistan attracting heavy foreign investment now-a-days. With the automation of many public organizations and government's approach towards electronic payment mechanism by effectively integrating the market, key players with public sector organizations poses diverse competition among cellular companies. The telecommunication industry is inclining progressively for the development of four payment mechanism of (a) Government-to-Person (G2P), (b) Person-to-Person (P2P), (c) Business-to-Person (B2P); and (d) Business-to-Business (B2B) through engaging in business contracts with other public/private market players, thus triggers the rivalry for grabbing maximum market share among the players of Telecommunication industry.

However, little research related organizational commitment and organizational effectiveness has been identified in Telecommunication industry of Pakistan. Very few researches have been conducted on investigating the mediation effect of organizational commitment to the relationship of study variables, learning organization practices and organizational effectiveness. It is believed that this research study will be the first to explore the relationship of learning organization practices, organizational commitment and organizational effectiveness specifically in the context of telecom sector of Pakistan.

The objectives of this research study are to explore the relationship between learning organization practices and organizational effectiveness and to testify the mediating effect of organizational commitment to the relationship of learning organization practices and organizational effectiveness. This research study also aims to test the hypothesized model which examines the possible relationship between the variables of this research study that are (i) learning organization practices; (ii) organizational commitment and (iii) organizational effectiveness to develop more comprehensive understanding. This research study will enable the middle-level management to take strategic and proactive measures in consideration to tackle the changing competitive market dynamics by enhancing organizational commitment and learning organization practices within the organization. This research study also seeks to address the answers of four research questions; (1) To what extent is learning organization practices associated with organizational effectiveness? (2) To what extent is learning organization practices associated with organizational commitment? (3) To what extent is an organizational commitment associated with organizational effectiveness? and (4) Is organizational commitment mediates the relationship of learning organization practices and organizational effectiveness?

Literature Review

The conception of a learning organization is increased an area of interest in the realms of Human Resource Development,

Management and Organizational Behavior (Marquardt, 1996, 2002; Wang et al., 2005). In the past decades, learning organization has been reviewed as the major source of gaining competitive advantage and organizational performance (Ellinger et al., 2002; Tsang, 1997). To achieve competitive advantage and effectiveness, organizations need to learn faster than their competitors.

In the past few years, researchers have integrated different level of analysis (i.e. individual, group or team, organization, and inter-organizational) to learn (Matusik & Heeley, 2005). These detailed specifications of analysis level have opened new facets for overseeing the learning practices at the workplace and the emerging role of organizations in facilitating the practices of learning organization (Berson et al., 2006). Argyris (1999) pointed that it can be achieved by conducting three major activities of acquiring and maintaining the new information about products and processes; understand and learn what is occurring in the external environment; and finally producing the new creative solutions using this acquired knowledge. Definitely this requires the cooperation among the members of an organization, free communication among them and a culture of trust.

In the early 1990s, Senge explored in his book, “The Fifth Discipline”, the five major characteristics possessed by learning organization that is system thinking, personal mastery, mental models, building shared vision and team learning (Senge, 1990). He further indicated that organization mastering the specific basic disciplines distinguishes that learning organization from the other traditional organizations or firms. These five disciplines of (i) system thinking, (ii) personal mastery, (iii) mental models, (iv) shared vision and (v) team learning identified by Senge are converging towards innovative learning (Senge, 1990a).

Garvin, Edmonson & Gino (2008) has defined a learning organization as a place where employees groom themselves by creating, acquiring and transferring new knowledge. A learning

organization is defined as an organization which is skilled in integrating new learned knowledge and insights in its behavior (Gravin et al., 1993). In the light of this definition, Garvin proposed that a learning organization constitutes the three major building blocks of (i) supportive learning environment, (ii) concrete learning processes and practices and finally, (iii) leadership behavior that reinforce the learning. Garvin et al. (2008) further elaborated that supportive learning environment is the one which pursues four major characteristics of openness to new ideas, time for reflection, appreciation of differences, psychological safety. This supportive environment is the outcome of open interaction between the individual, group and organizations that further enhances their performance (Davis & Daley, 2008). To achieve the organizational effectiveness, organizations need to review their strengths, weaknesses, success and failures; assess them systematically and finally derive the lessons and essential information efficiently for those members who need it (Garvin et al., 2008). Therefore, these concrete processes and practices ensure the efficient delivery of information to those who requires it for policy making and strategic planning. Garvin et al. (2008) also indicated that learning in the organization is effected by the leaders of the organization and if they encourage their members towards problem identification, acquisition, information, transfer of knowledge and learning continuously, then obviously the learning organization practices will flourish in the organization.

Watkins and Marsick (1993, 1996, 1997) illustrated learning organization in terms of seven dimensions populated at three levels; individual level, team or group level and organizational level. They further explained that individual level constitutes the people of organization which refers to the two dimensions: continuous learning and dialogue and inquiry. Team or group level is referred to the single dimension of team learning and collaboration. Finally, the organizational level comprises of four dimensions: system creation, connecting environment, empowerment and strategic leadership to facilitate learning. These seven dimensions are the basis for the measuring

instrument of Watkins and Marsick (1997) DLOQ whose reliability and construct validity is ratified by many other empirical studies (Ellinger et al., 2002; Wang, 2005; Yang, 2003).

Lopez, Peon & Ordes (2006) conducted a research study and found a positive relationship between the human resource practices, organizational learning and organizational performance. They argued that learning is associated with the organizational effectiveness. He concluded that for facing competitiveness, it is necessary to clarify and understand the relationship between learning organization practices and the other research variable organizational effectiveness. Jones (2000) argued that in learning organizations a manager attempts to increase the knowledge and abilities of his employees by providing them more developmental opportunities, manage the workforce to understand the organizational environment in better way, thus, enabling them to understand the dynamics of the decisions made that increases the effectiveness of organization on a regular basis. Dodgson (1993) also argued that the acquisition of knowledge and continuous learning of employees enabled them to improve their abilities with better understanding of the environment. An employee's intrinsic desire to learn more consequently boosts the effectiveness by building a strong cordial relationship of employee with the clients, customers, suppliers and other market stakeholders (Webster, 1992).

Gilley & Coffen (1994) defined organizational effectiveness as the ability of organization to strategize the behavior of the organization in the light of the forecasted environmental changes to achieve maximum business success. Learning organization provides leaders with maximum learning opportunities to enhance their leadership skill with clear vision, capable management and creativity, thus fostering the organizational effectiveness (Tseng & McLean, 2007). Tagiuri (1968) defined organizational climate as the excellence of quality in the internal environment of the organization, experienced by the employees that influences / shapes their behavior and that

possess certain identified set of characteristics. Organizations adopting learning practices implies in the improvement of employee's response capacity due to better understanding of the environment (Dodgson, 1993). Fallon & Brinkerhoff (1996) argued that learning organization practices help organization in strategic planning in accordance with the environment as well as assist organizations in making their employees satisfied. Thus, the following research hypotheses has been developed in the light of existing literature,

HI: *Learning organizational practices is positively related to organizational effectiveness.*

In addition to the hypothesis 1, seven sub-hypothesis are also proposed as;

HIa : *Continuous learning is positively related to organizational effectiveness.*

HIb: *Inquiry and dialogue are positively related to organizational effectiveness.*

HIc: *Team learning & collaboration is positively related to organizational effectiveness.*

HI d: *System creation is positively related to organizational effectiveness.*

HIe: *People Empowerment is positively related to organizational effectiveness.*

HI f: *System Connection is positively related to organizational effectiveness.*

HIg: *Strategic leadership is positively related to organizational effectiveness.*

Several studies have identified the relationship between organizational commitments and learning organization practices (Ahmad & Bakar, 2003; McMurray & Dorai, 2001; Atak, 2011; Agahei et al., 2012). Organizational commitment explains the strength of an employee's involvement with the specific organization (Steer, 1977). Organizations striving for achievement of goals want their employees committed whole-heartedly to the organization as committed

employees exert more efforts (Mowday, Porter & Dubin, 1974). Therefore, some researchers argued that organizational commitment is identified by three major aspects of: strong belief in and acceptance of the organization's goal/values; willingness to exert considerable efforts on behalf of the organization's goals/values and finally a strong desire to maintain membership in an organization (Mowday, Porter & Steers, 1974).

Chou & Kwon (2005) identified the mutual relationship between the research variables of learning organization practices and the organizational commitment, learning organization that practices can access employee's commitment as well as organizational commitment also make employee motivated for learning. Barlett (2001) conducted research study in five organizations of public health sector and found that the employee's motivation to learn, support to training and perceived benefits of training have a positive relationship with the organizational commitment.

McMurray and Dorai (2001) conducted a wide research study on a number of organizations of Australian context and found a positive relationship with the learning opportunities and training with the organizational commitment. McMurray and Dorai (2001) concluded that in automotive and hospitality service industries, employees perceive training opportunities is positively related to organizational commitment. Similarly, in non-profit organizations, motivation for training was also positively related to the organizational commitment (McMurray & Dorai, 2001).

Ahmad and Bakar (2003) also conducted a research study on three components of organizational commitment i.e. affective, normative and continuance. They found that motivation, support for learning and perceived benefits of training has a positive relationship with affective commitment, but there was no relationship found with these independent variable with the other two dimensions of organizational commitment i.e. normative commitment and continuance

commitment. Thus, the research hypothesis developed in light of existing literature was.

***H2:** Learning organization practices is positively related to perceived organizational commitment.*

Recent researches has acknowledged organizational commitment both as the antecedent and consequence of many work related variables the key factor of them is performance (Mathieu and Zajac, 1990). A number of research studies have illustrated the positive impact of organizational commitment on job performance of employee and organizational effectiveness (Angel & Perry, 1981; Mowday, 1979; Gunasekaran, Forker & Kobu, 2000).

Angel & Perry (1981) concluded in their research study that the extents of the commitment level of employees are expected to affect the organizational effectiveness of the firm consequently, driving towards the conclusion that the organization with the highly committed employees would strive towards higher organizational effectiveness. Angel & Perry (1981) further argued that the relative strength of the extent of employee's commitment and organizational effectiveness may also depend upon the behavior of employees towards the organization.

Black et al. (2009) also concluded in their research study that organizational commitment has a strong relationship with the organizational performance. Despite of a number of researches on organizational commitment, managers of today's organizations are still facing acute challenges of employee commitment in organizations. Mathis and Jackson (2004) pointed that organizational commitment reduces the employee absenteeism as the employee is more satisfied with their jobs and tends to stay with the organization with the longest period.

Eugene (2000) argued that commitment is the sense of belonging to employees, which arises when an employee started identifying himself with the organization, agrees with its objectives

and goals, and volunteers willing to work hard for the organization. This reflects that the commitment refers to the phenomenon that an individual works hard to achieve the targeted objectives and goals as per the organizational standards, Consequently adding value to his job as well as raising organizational performance and organizational effectiveness. But this long term association of employees requires the commitment in two-way. In simple, both parties, employee and organization are willing to support each other for their benefits.

Wilson (2005) argued that the delegation of authority by the line manager will be effective if they are aware that support will come from top management as required. It is obvious that senior management approval is necessary for making things effective. Simonsen (1997) pointed this support of senior management as the commitment from senior management as a powerful source for bringing change and shaping the employee behavior. Thus, the following research hypothesis has been developed in the light of existing literature,

H3: Organizational Commitment is positively related to organizational effectiveness.

In addition to the hypothesis 3, three sub-hypothesis are also proposed as;

H3a : Willingness to exert effort is positively related to organizational effectiveness.

H3b: Strong belief on organizational goal is positively related to organizational effectiveness.

H3c: Strong Desire to maintain membership is positively related to organizational effectiveness.

Slater & Narver (1995) explained that learning organization is inherently flexible as they forecast the changing environment and quickly foster the business strategies with required reconfiguration along with the reallocation of resources, thus paves the path to focus

on emergent opportunities with maximum performance and efficiency. Tseng & McLean (2007) argued that leadership mobilizes the organization to achieve organizational effectiveness. Learning organization provides leaders with maximum learning opportunities to enhance their leadership skill with vision clarity, capable management and creativity thus fostering the organizational effectiveness. Tagiuri (1968) defined organizational climate as the quality of the internal environment of the organization experienced by the employees that influences / shapes their behavior and that possess certain identified set of characteristics.

Organizations adopting learning practices implies in the improvement of employee's response capacity due to better understanding of the environment (Dodgson, 1993). Fallon & Brinkerhoff (1996) argued that learning organization practices help organization in strategic planning in accordance with the environment as well as assist the organization in making their employees satisfied.

Senge (1990) explained that the reward for the management in empowering their employees lies in the form of commitment to work. Employees tend to own their work activities when empowered, that enables them to produce the desired results. Senge (1990) further explained that designing the policies and rules is of no use unless nobody in the organization understands and willing to accept. When employees are clarified with their goals and empowered with the authority to align the activities to accomplish those goals, the employees tend to own them and consequently work harder making them capable to achieve those targets.

Goh (1997) argued that managers playing their role as coaches rather than controlling, inspires the employees with the feeling that their contribution is worthwhile for the organization. Therefore, it is generally argued that the leaders of the learning organization must empower their employees in assigned work activities and also make their employees involved in decision making (Goh, 1997; Gephart & Marsick, 1996).

Based on the existing literature, this research study also attempts to testify the mediating role of organizational commitment on the relationship of learning organization practices and organizational effectiveness. Therefore, hypothesis 4 as also proposed as,

H4: Organizational commitment will mediate the relationship between learning organization practices and organizational effectiveness.

In the light of existing literature, conceptual framework was proposed to hypothesize the interconnection between variables in light of existing literature. The first variable of research study was guided by the Watkins & Marsick's illustration of learning organization practices (Marsick & Watkins, 1999, 2003). Learning organization practices were operationalized with seven key practices of (a) continuous learning, (b) inquiry and dialogue, (c) system creation, (d) collaboration and team learning, (e) empower people, (f) strategic leadership, and (g) connecting environment. The second variable of this research study organizational commitment was guided by the work of Mowday et al. (1979) explaining organizational commitment in terms of willingness to exert effort, degree of goal and value and finally desire to maintain membership with the organization. The dependent variable of this research study the organizational effectiveness was measured in three major dimensions of leadership, organizational climate and satisfaction based on the work of Taylor & Bower (1972).

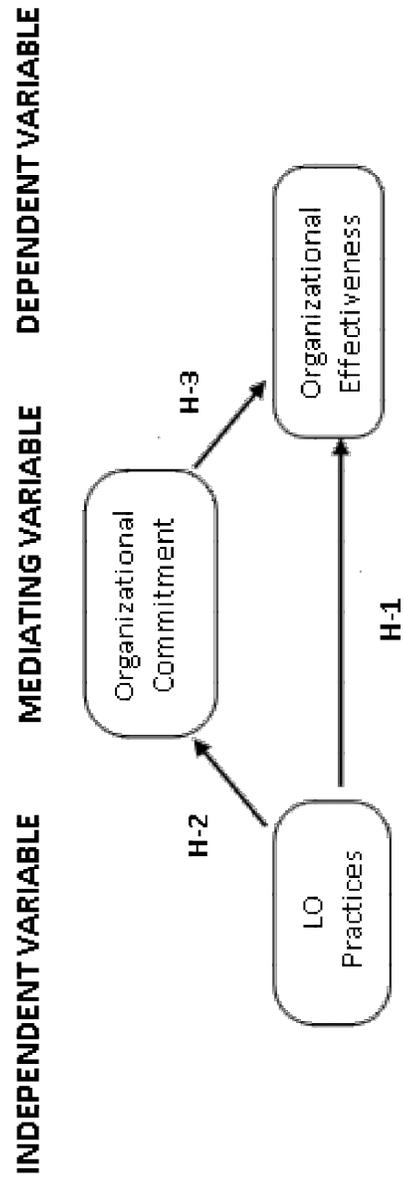


Figure 3.1. Hypothesized Conceptual Framework of Research Study

In this research study, learning organization practices is operationalized as second-order constructs and first-order indicators are those seven dimensions indicated by Music & Watkins (1999, 2003). These seven practices are, (i) Creating continuous learning opportunities, (ii) Promoting inquiry and dialogue, (iii) Encouraging collaboration and team learning, (iv) Creating systems to capture and share learning, (v) Empowering people towards collective vision, (vi) Connecting the organization to its environment, and (vii) Identifying the leaders who strategically champion learning.

Continuous learning refers to the constant sharing of knowledge that encourages a learning environment within the organization and transforms the organizational course of actions, strategies and routines in a learned manner. Inquiry and dialogue refer to promoting the environment by supporting, questioning, feedback and experimentation among employees by developing in them the capacity to listen others views while expressing their own views. System creation refers to the conception of such learning system that facilitates the sharing of what is learned within the organization. Team learning and collaboration refers to promoting group work activities by accessing different ways of thinking for utmost collaboration. Empower people refer to the distribution of responsibility among employees to motivate them towards a joint vision with the sense of owning it. Connecting Environment refers to effectively utilizing the information from the surrounding environment to adjust work practices in a way that the organization is connected to its environment. Strategic leadership refers to basis for promoting joint vision across organization's employees for achieving strategic goals.

Organizational Commitment is operationalized by the three associated dimensions of (i) willingness to exert effort on behalf of an organization, (ii) strong belief on organizational goal and value; and finally (iii) strong desire to maintain the membership with the organization. These three constructs depicted in Mowday's work

were measured with the instrument of Organizational Commitment Questionnaire (OCQ). Organizational Effectiveness is defined by the degree to which the organization holds the strong managerial leadership, positive organizational climate; and satisfied employees. In this research study, Organizational effectiveness is operationalized in the light of Taylor & Bower's (1972) designed research instrument of the Survey of Organization (SOO). It measures the degree of organizational effectiveness by measuring the three major aspects of organizing that are (a) Managerial leadership; (b) Organizational Climate and (c) Satisfaction.

Methodology

Research Design

An empirical approach to quantitative research design was used. A questionnaire survey was used as the research instrument for conducting this research study. Research design involves the data gathering and data analysis methods (Burns & Bush, 2002). The method for data collection and design of this research study as hypothesized above was one-industry analysis. Major sub-sector of Telecom Sector, cellular companies was the major source of primary data for this research study. The main theme of this research work is to explore the organizational effectiveness in respect of commitment to the organization and learning organization practices, therefore telecom sector was chosen because of intense competition in the telecom sector.

Measures

This research study used the existing instruments of previous research studies based on theoretical and empirical foundations of under-discussed concepts. Three existing research instruments were refined and incorporated into single research questionnaire of this study. The questionnaire of the current study was developed from combining these three original surveys conducted in the USA. It was

necessary to ensure the adequate psychometric properties of construct validity of refined research questionnaire of current research study. Therefore, factor analysis was carried to testify the factor loading of instrument's items in the context of Pakistan.

For measuring the Learning organization practices in Telecommunication industry, existing 21-items Dimensions of Learning Organization Questionnaire (DLOQ) instrument were used. Yang et al (2004) conducted a broad series of exploratory and confirmatory factor analyzes and recommended that a reduced, short-form of 21-items of this research questionnaire is more superior representation to the 43-items original instrument (Lien et al, 2006; Yang et al., 2004). The validity and reliability of Dimensions of Learning Organization Questionnaire (DLOQ) have already been tested by a number of previous research studies (Ellinger et al., 2002; Wang, 2005; Yang, 2003).

For measuring the organizational commitment, Organizational Commitment Questionnaire (OCQ) instrument of Mowday et al. (1979) research studies was used that indicated the positive relationship between organizational commitment and performance in his research study. Mowday et al. (1979) has conducted, the number of broad series of research studies in 09 divergent organizations of public, private, public-private partnership organizations with 2,563 employees, and concluded the instrument Organizational Commitment Questionnaire (OCQ) with satisfactory internal consistency reliability and validity. Based on that, it appears that Organizational Commitment Questionnaire (OCQ) has been the most extensively used instruments for measuring the concept of organizational commitment in organizations presently (Cooke, 1997; Yousef, 2003; Fiorito, Bozeman, Young & Meurs, 2007). Lastly, Survey of organizations (SOO) instrument for measuring organizational effectiveness based on Taylor & Bower (1972) study was used and modified according to the context of Pakistani organizations. These three instruments possess a substantial level of reliability and validity separately. The consolidated questionnaire of this research study measured the five (05) elements

of demographics mainly gender, age, educational level, number of years served and primary responsibility ranging from 51-55 items under demographics portion.

Population & Sample Size

The targeted population of the research constitutes the cellular companies of Telecommunication industry of Pakistan categorized. Cellular sector consists of five major cellular service provider that are Mobilink (PMCL), Ufone (PTML), Zong (CMPak), Telenor and Warid. This research study has used the Convenience Sampling as the sampling strategy due to lack of time and resources. Convenience sampling strategy is a form of non-probability sampling technique in which respondents were accessed on the basis of conveniently available (Sekaran, 2003). On the basis of convenience sampling, a sample of 400 was chosen to gather quick and efficient information and the respondents were the middle/functional managers and knowledge workers of these cellular companies.

Roscoe (1975) proposed that sample size larger than 30 and less than 500 are adequate enough for most of the researches. According to Kelloway (1998), a sample of 200 size is required for conducting a generalizable research. Marsh, Balla & MacDonald (1988) has also proposed that research parameters of 200 sample size are sufficient enough for accuracy and precision. In light of this, a sample of 400 size was chosen from 05 cellular companies of Pakistan to meet the minimum sample size requirement of research under convenience sampling strategy.

For conducting the pilot study, 92 questionnaires were distributed to 02 organizations from the target population by using Convenience Sampling. In response only 38 questionnaires were received with the response rate of 41.30%. The questionnaire for pilot testing was distributed by visiting the nearby offices/sub-offices of

Mobilink (PMCL) and Telenor. During this pilot testing activity, the respondents were requested to comment on any problem they faced during filling. It was found that feedbacks focused on some typing errors and comprehension of literary mistakes in questions. Thus, after revising the minor errors, the consolidated questionnaire was made in the light of feedbacks and recommendations.

Data Collection

The final survey was conducted in offices/franchises of five (05) cellular companies of Pakistan. In the offices/franchises of these cellular companies situated in Rawalpindi/Islamabad, the questionnaires were distributed to conveniently accessed employees of functional/middle management and knowledgeable worker. Some telephonic reminders and emails were part of the survey. The cellular companies participated in the survey were Telenor, Zong, Mobilink, Ufone and Warid. Four hundred (400) questionnaires were distributed and in response only 194 filled questionnaires were received which showed the response rate of 48.50 % representing the lack of interest and poor research culture. Table 1 depicts the details of organization wise distribution of questionnaires. Thus, the total response rate of 48.50% with the highest response rate from Ufone of 68.57% was obtained.

Table 1.

Summary of Organization wise Questionnaire Distributed

Cellular Companies	Total Questionnaire Distributed	Total Questionnaire Received	Defected Questionnaires	Response Rate
Mobilink	90	51	2	56.66%
Telenor	70	37	0	52.85%
Ufone	70	48	1	68.57%
Warid	85	31	0	36.47%
Zong	85	27	0	31.76%
Total	400	194	03	48.50%

Data Analysis & Results

Demographic Analysis

The demographic analysis of responses is also summarized in Table 2 depicting the descriptive frequencies of respondents in five categories of demographics that are gender, age, education, experience and responsibility.

Table 2.
Demographic Information of Respondents

S #	Demographic Variable	Categories	Frequency	Percent
51	Gender	Female	43	22.5
		Male	148	77.5
		Total	191	100
52	Age	Less than 25	18	9.4
		25 yr – 35 yrs	127	66.5
		35 yrs – 45yr	34	17.8
		Above than 45 yrs	12	6.3
		Total	191	100
53	Education	Intermediate	0	0
		Graduation	4	2.1
		Masters	146	76.4
		MS/MPhil	41	21.5
		Total	191	100
54	Experience	Less than 01 yr	43	22.5
		01yr – 03 yr	88	46.0
		04 yr – 05 yr	44	23.0
		More than 05 yrs	16	8.3
		Total	191	100

Construct Validity Analysis

The Exploratory Factor Analysis of Principal Axis Factoring (with Varimax rotation) was also executed to check the construct validity of the instrument in order to determine the factor loadings of instrument

Table 3.
Factor Loadings for the Subscales of DLOQ

Items	Factors						
	*LO1	*LO2	*LO3	*LO4	*LO5	*LO6	*LO7
1. In my organization, people help each other learn	0.865	--	--	--	--	--	--
2. In my organization, people are given time to support learning	0.879	--	--	--	--	--	--
3. My organization, people are rewarded for learning	0.939	--	--	--	--	--	--
4. In my organization, people give open and honest feedback to each other	--	0.876	--	--	--	--	--
5. In my organization, whenever people share views they also ask what others think	--	0.875	--	--	--	--	--
6. In my organization, people spend time building trust with each other	--	0.913	--	--	--	--	--
7. In my organization, teams/groups have freedom to adapt their goals as needed	--	--	--	0.795	--	--	--
8. In my organizations, teams/groups revise their thinking as a result of group discussion	--	--	--	0.852	--	--	--
9. In my organizations, teams are confident that organization will act on recommendation	--	--	--	0.724	--	--	--
10. My organization creates systems to measure gaps between current and expected performance	--	--	--	--	--	0.717	--
11. My organization makes its learned lessons available to all employees	--	--	--	--	--	0.764	--
12. My organization measures the result of time and resources spent on training	--	--	--	--	--	0.828	--
13. My organization recognize people taking initiative	--	--	0.804	--	--	--	--
14. My organization gives people control over resources need to accomplish work	--	--	0.804	--	--	--	--
15. My organization encourages people to think from global perspective	--	--	0.791	--	--	--	--
16. My organization work with outside community to meet mutual needs	--	--	--	--	--	--	0.556
17. My organization encourages people to get answers across organization when solving problems	--	--	--	--	--	--	0.875
18. My organization encourages people to get answers from across organization when solving problems	--	--	--	--	--	--	0.811
19. In my organization, leader's mentors and coaches those he or she leads	--	--	--	--	0.813	--	--
20. In my organization, leader continually look for opportunities to learn	--	--	--	--	0.813	--	--
21. In my organization, leader ensure that organization's actions are consistent with its value	--	--	--	--	0.702	--	--
Total Rotation Sum of Squares (Eigenvalue)	2.881	2.816	2.585	2.532	2.523	2.454	2.258
% of Variance (Rotated)	13.721	13.41	12.309	12.057	12.014	11.688	10.754
Cumulative %age of Variance	13.721	27.131	39.440	51.497	63.511	75.198	85.953

Note. *LO1 = Continuous Learning; LO2 = Inquiry & Dialogue; LO3 = Team Learning & Collaboration; LO4 = System Creation; LO5 = People Empowerment; LO6 = Connecting Environment; LO7 = Strategic Leadership

in the Pakistani context. The results of Exploratory Factor Analysis explained 85.95% cumulative variance for learning organization practices in DLOQ subscale (shown in Table 3); 77.24% cumulative variance of organizational commitment in OCQ subscale (shown in Table 4); and 71.82% cumulative variance of organizational effectiveness in SOO subscale (summarized in Table 5).

Table 4.
Factor Loadings for the Subscales of OCQ

Items	Factors		
	*OC1	*OC2	*OC3
22. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful	--	0.864	--
23. I would accept almost any type of job assignment in order to keep working for this organization	--	0.544	--
24. I talk up this organization to my friends as a great organization to work for	--	0.732	--
25. I am proud to tell others that I am part of this company	--	--	0.712
26. This company really inspires the very best in me in way of job performance	--	--	0.892
27. I find that my values and company's values are very similar	--	--	0.556
28. I really care about what happens to this company	0.792	--	--
29. For me this best of all possible companies for which to work	0.837	--	--
30. I am extremely glad that I chose this company to work for, over others I was considering at the time I joined	0.676	--	--
Total Rotation Sum of Squares (Eigenvalue)	2.461	2.259	2.233
% of Variance (Rotated)	27.341	25.095	24.812
Cumulative %age of Variance	27.341	52.435	77.247

Note. *OC1 = Strong desire to maintain membership; OC2 = Willingness to exert effort on behalf of organization; OC3 = Strong belief on organizational goal and value

The results of factor analysis also showed that "Continuous Learning" has the highest eigenvalue of 2.881 and higher variance of 13.72% in DLOQ subscale. The subscale of OCQ pertained the factor

“Strong desire to maintain membership” highest eigenvalue of 2.461 with the highest percentage of variance of 27.34%.

Table 5.
Factor Loadings for the Subscales of SOO

Items	Factors		
	*OE1	*OE2	*OE3
31. People in my work group helps me find ways to do a better job	--	0.525	--
32. My supervisor encourages people who work for him	--	0.804	--
33. People in my work group encourages me to work as a team	--	0.690	--
34. People in my group encourages people to give their best effort	--	0.597	--
35. My supervisor shows me how to improve my performance	--	0.669	--
36. People in my work group pay attention what I am saying	--	0.532	--
37. My supervisor encourages people to give the best effort	--	0.681	--
38. My supervisor willing to care my problems	--	0.690	--
39. My organization have a real interest in the welfare and happiness of those who work in my organization	0.728	--	--
40. My organization's people, policies, working conditions and other organizational things encourages me to work hard	0.784	--	--
41. The decisions in my organization are made at those levels where the most adequate and accurate information is readily available	0.781	--	--
42. The equipment's and resources I have to do my work with are all adequate, efficient, and well-managed	0.778	--	--
43. In my organization I am always told what I need to know to do my job in best possible way	0.586	--	--
44. Considering your skills and effort you put into work, I am satisfied with my pay	--	--	0.868
45. I am satisfied with my progress I have made in this organization up to now.	--	--	0.798
46. All in all, I am satisfied with my supervisor	--	--	0.705
47. I am satisfied with the chances for getting ahead in this organization in future	--	--	0.577
48. All in all, I am satisfied with the persons in my work group	--	--	0.614
49. All in all, I am satisfied with this job	--	--	0.686
50. All in all, I am satisfied with this organization	--	--	0.554
Total Rotation Sum of Squares (Eigenvalue)	4.826	4.807	4.731
% of Variance (Rotated)	24.129	24.036	23.657
Cumulative %age of Variance	24.129	48.165	71.822

Note. * OE1= Organizational Climate; OE2 = Leadership; OE3 = Satisfaction

In organizational effectiveness scale, “Organizational Climate” had the highest eigenvalue of 4.826 with the highest percentage of variance of 24.12%. From the factor analysis results, it was testified that three subscales of DLOQ, OCQ and SOO measuring the research constructs of study variables possessed the appropriate loading of factors for measuring the concepts in the context of Pakistan and hence, acceptable in the context of Telecom industry of Pakistan.

Reliability & Discriminate Validity Analysis

In order to test the appropriateness of the finalized questionnaire of pilot study, first reliability of the instrument was examined by analyzing the internal consistency of Cronbach’s alpha value. The Cronbach’s alpha value of whole finalized consolidated questionnaire of this research study was 0.972 and it was found that all subscales possess acceptable reliability estimates. The first 21-items of finalized questionnaire covering the DLOQ instrument possessed the total Cronbach alpha’s value of 0.932. The reliability estimates of 09-items organizational commitment was 0.896 and the Cronbach’s alpha value of 20-items subscale of organizational effectiveness was 0.959 respectively which all are found satisfactory summarized in Table 6.

Discriminate validity analysis was conducted to testify that the research constructs are distinguished from each other. To measure the discriminate validity of research constructs, Pair wise Pearson correlation analysis was carried on Statistical Package for Social Sciences (SPSS) version 16.0. Tian & Wilding (2008) explained that the value of correlation between 0.10 and 0.50 is considered as weak relationship; the value of correlation between 0.50 and 0.90 is considered as strong relationship; and the value of the correlation above than 0.90 is considered as an extremely strong relationship.

The results of correlation analysis, among the three subscales of Dimensions of The Learning Organization (DLOQ), Organizational Commitment Questionnaire (OCQ) and Survey of Organization (SOO)

were shown in Table 6. It was found that the LO practices possess a strong positive relationship with organization commitment with p-value of .731; LO practices possess the strong positive relationship with the organizational effectiveness with correlation strength of .915; and finally an organizational commitment possess a strong positive relationship with organizational effectiveness with a correlation value of .755.

Table 6.

Correlation Analysis Among Three Scales

Scale		1	2	3
(1) DLOQ	Pearson Correlation			
	Sig (2-tailed)	1		
	Cronbach alpha	.932		
(2) OCQ	Pearson Correlation	.731**		
	Sig (2-tailed)	.000	1	
	Cronbach alpha		.896	
(3) SOO	Pearson Correlation	.915**	.755**	
	Sig (2-tailed)	.000	.000	1
	Cronbach alpha			.959

Table 7 shows the correlation values of 21 pairs of seven dimensions Learning Organization Practices; 03 pairs of three-dimension Organizational Commitment; and 03 pairs of three-dimension Organizational Effectiveness. From 21 paired dimensions of LO practices dimensions, 18 pairs are correlated at $r < 0.50$ depicting a weak positive correlation with each other; and the remaining 03 pairs are correlated at $r > 0.50$ depicting the strong positive correlation with each other. Table 9 also shows the correlation values of 03 pairs of three-dimensions Organizational Commitment (OC1), (OC2) and (OC3); all of them are correlated at $r < 0.05$ (correlation value of 0.361, 0.016 and 0.135) depicting the weak positive relationship with each other's. Furthermore, Table 7 also shows the correlation values of 03 pairs of three-dimensions Organizational Effectiveness (OE1), (OE2) and (OE3); from which 02 pairs are correlated at $r < 0.05$ (value) depicting the weak positive correlation with each other and the remaining 01 pair is correlated at $r > 0.05$ depicting the strong positive correlation among Satisfaction (OE1) and Organizational Climate (OE2) with correlation value of 0.755.

Table 7.
Correlation Analysis among Measurements of Three Subscales

Dimensions	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(1) Correlation														
LO1 Sig(2-tailed)	1													
Cronbach α	.945													
(2) Correlation	.279*													
LO2 Sig(2-tailed)	.000	1												
Cronbach α		.927												
(3) Correlation	-.303*	.404*												
LO3 Sig(2-tailed)	.000	.000	1											
Cronbach α			.883											
(4) Correlation	.282**	.384**	.876**											
LO4 Sig(2-tailed)	.000	.000	.000	1										
Cronbach α				.876										
(5) Correlation	-.816*	.261**	.324**	-.379**										
LO5 Sig(2-tailed)	.000	.000	.000	.000	1									
Cronbach α					.895									
(6) Correlation	-.292**	.186*	.356**	-.350**	-.341**									
LO6 Sig(2-tailed)	.000	.010	.000	.000	.000	1								
Cronbach α						.825								
(7) Correlation	.034	.056	.008	.011	.035	.088								
LO7 Sig(2-tailed)	.000	.000	.000	.000	.000	.000	1							
Cronbach α							.878							
(8) Correlation	.813*	.257**	.377**	.361**	.924**	.358**	-.020							
OC1 Sig(2-tailed)	.000	.000	.000	.000	.000	.000	.781	1						
Cronbach α								.766						
(9) Correlation	-.214*	.197**	.337**	-.324**	.313**	.914**	.089	.361**						
OC2 Sig(2-tailed)	.001	.006	.000	.000	.000	.000	.221	.000	1					
Cronbach α									.796					
(10) Correlation	-.115	-.086	-.024	-.005	-.030	.115	.918**	.016	.135					
OC3 Sig(2-tailed)	.113	.239	.738	.948	.679	.113	.000	.025	.044	1				
Cronbach α										.842				
(11) Correlation	-.599*	.627**	.662**	.645**	.698**	.409**	-.024	.733**	.423**	.027**				
OE1 Sig(2-tailed)	.000	.000	.000	.000	.000	.000	.745	.000	.000	.713	1			
Cronbach α											.934			
(12) Correlation	-.420*	.396*	.840**	-.871**	.495**	.385**	-.017	.506**	.404**	.002	.755**			
OE2 Sig(2-tailed)	.000	.000	.000	.000	.000	.000	.816	.000	.000	.003	.000	1		
Cronbach α												.910		
(13) Correlation	.471**	.214*	.345**	.346**	.575**	.743**	.433**	.600**	.740**	.470**	.572**	.462**		
OE3 Sig(2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1	
Cronbach α													.908	
(14) Correlation	-.590*	.500**	.711**	.714**	.699**	.592**	.144*	.728**	.603**	.187**	.924**	.850**	.788**	1
SOO Sig(2-tailed)	.000	.000	.000	.000	.000	.000	.047	.000	.010	.000	.000	.000	.000	.95
Cronbach α														.9

** Pearson Correlation is significant at 0.01 levels (2-tailed).

* Pearson Correlation is significant at 0.05 levels (2-tailed).

Note. LO1 = Continuous Learning; LO2 = Inquiry & Dialogue; LO3 = Team Learning & Collaboration; LO4 = System Creation; LO5 = People Empowerment; LO6 = Connecting Environment; LO7 = Strategic Leadership; OC1 = Strong desire to maintain membership; OC2 = Willingness to exert effort on behalf of organization; OC3 = Strong belief on organizational goal; OE1= Organizational Climate; OE2 = Leadership; OE3 = Satisfaction; SOO = Organizational Effectiveness scale

Thus, it was found that all the correlations among the dimensions of research constructs are positive and satisfies the criteria of discriminate validity that each dimension is distinguished from others. Table 7 also testifies the following sub-hypotheses as;

H1 (a) Continuous Learning (LO1) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .590 and p-value .001, thus proves the hypothesis).

- H1 (b)** Inquiry & Dialogue (LO2) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .500 and p-value .001, thus proves the hypothesis).
- H1 (c)** Collaboration & Team Learning (LO3) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .711 and p-value .001, thus proves the hypothesis).
- H1 (d)** System Creation (LO4) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .714 and p-value .001, thus proves the hypothesis).
- H1 (e)** People Empowerment (LO5) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .699 and p-value .001, thus proves the hypothesis).
- H1 (f)** System Connection (LO6) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .592 and p-value .001, thus proves the hypothesis).
- H1 (g)** Strategic Leadership (LO7) is weak positively related to organizational effectiveness (SOO) (with the correlation value of .144 and p-value .047, thus proves the hypothesis).
- H3 (a)** Willingness to exert effort on behalf of organization (OC1) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .728 and p-value .001, thus proves the hypothesis).
- H3 (b)** Strong belief on Organizational goal and values (OC2) is strongly positive related to organizational effectiveness (SOO) (with the correlation value of .603 and p-value .010, thus proves the hypothesis).
- H3 (c)** Strong Desire to maintain membership with the Organization (OC3) is weak positive related to organizational effectiveness (SOO) (with the correlation value of .187 and p-value .001, thus proves the hypothesis).

Hypothesis Testing & Mediation Analysis

For conducting the mediation analysis of the study variable the four steps from Baron & Kenny (1986) approach was used. Separate Regression Analysis was conducted for checking each relationship between variable to test the mediation relationship (Baron & Kenny, 1986; James & Brett, 1984; Judd & Kenny, 1981).

Firstly, the relationship of criterion variable learning organization practices was tested with the predictor variable organizational effectiveness. Secondly, it was tested that whether criterion variable (learning organization practice) was a significant predictor of mediating variable (organizational commitment). At third stage, it was explored that whether the mediating variable (organizational commitment) was the significant predictor of dependent variable (organizational effectiveness). Lastly, the degree of mediation was checked by calculating the differences between slopes. At this stage, the mediating variable (organizational commitment) was considered to be a complete mediator if the effect of LO practices on organizational effectiveness was zero when controlling the mediating variable (Hair et al., 2010). On the other hand, the mediating variable (organizational commitment) was considered to be a partial mediator if the effect of learning organization practices on organizational effectiveness was only reduced (Baron and Kenny, 1986; Hair et al., 2010; Judd and Kenny, 1981; James and Brett, 1984).

The result of Regression Analysis in light of Barron & Kenny approach (1986), when regressing the organizational effectiveness on learning organization practices is shown in Table 8, it was found that the 83.8 % variance in organizational effectiveness can be explained by the learning organization practices and it was also found that learning organization practices has a significant effect on organizational effectiveness with p-value .001 at confidence interval of 95 percent with the estimate of confidence t-value was 31.227 (greater than 02) that was also acceptable with the standardized coefficient Beta of 0.915. These results testify the Hypothesis 1 to be valid.

Table 8.*Regression Analysis For LO Practices Predicting OE*

Variable	Unstandardized Coefficient B	Std. E	Standardize Coefficients Beta
Constant	.011	.097	
LO Practices	1.004	.032	.915

Note. Adjusted R Square = .838; F = 97.5; p < .001, t < 31.227; VIF < 1.000

When regressing the organizational commitment on learning organization practices as shown in Table 9, it was found that the 53.5 % variance in organizational commitment can be explained by the learning organization practices and it was also found that the learning organization practices has a significant effect on organizational commitment with p-value .001 at confidence interval of 95 percent with the estimate of confidence t-value was 14.736 (greater than 02) that was also acceptable with the standardized coefficient Beta of 0.731. These results testify the Hypothesis 2 to be valid.

Table 9.*Regression Analysis For LO Practices Predicting OC*

Variable	Unstandardized Coefficient B	Std. E	Standardize Coefficients Beta
Constant	.632	.167	
LO Practices	.810	.055	.731

Note. Adjusted R Square = .535; F = 21.7; p < .001, t < 14.736; VIF < 1.000

When regressing the organizational effectiveness on organizational commitment as shown in Table 10, it was found that the 57.1 % variance in organizational effectiveness can be explained by the organizational commitment and it was also found that the organizational commitment has a significant effect on organizational effectiveness with p-value .001 at confidence interval of 95 percent and the estimate of confidence t-value was 15.852 (greater than 02)

that was also acceptable with the standardized coefficient Beta of 0.755. These results testify the Hypothesis 3 to be valid.

Table 10.
Regression Analysis for OC Predicting OE

Variable	Unstandardized Coefficient B	Std. E	Standardize Coefficients Beta
Constant	.721	.147	
Organizational Commitment	.748	.047	.755

Note. Adjusted R Square = .571; F = 25.1; p < .001, t < 15.852; VIF < 1.000

When regressing the organizational effectiveness on organizational commitment controlling for learning organization practices as shown in Table 11, it was found that the 85.4 % variance in organizational effectiveness can be explained by the two criterion variables LO practices, organizational commitment and it was also found that both of these two criterion variable have significant effect on organizational effectiveness with p-values .0001 and .001 respectively and the estimates of confidence t-value are 19.062 and 4.532 (greater than 02) respectively that are also acceptable with the standardized coefficient Beta of 0.755 and 0.185 respectively.

Table 11.
Multiple Regression Analysis For LO Practices, Organizational Commitment Predicting Organizational Effectiveness

Variable	Unstandardized Coefficient B	Std. E	Standardize Coefficients Beta
Constant	-.105	.096	
* LO Practices	.865	.045	.755
**Organizational Commitment	.184	.041	.185

Note. Adjusted R Square = .854; F = 54.8; (*p < .001, *t < 19.062; *VIF < 1.000); (**p < .001, **t < 4.532; **VIF < 1.000)

Table 12 reveals the results for the mediation analysis of Organizational Commitment on the relationship of learning organization practices and organizational effectiveness. Since the standardize regression coefficient for Learning Organization Practices was reduced

by **0.160** (as $0.915 - 0.755 = 0.160$) thus testifies that the organizational commitment partially mediates the relationship of learning organization practices and organizational effectiveness, thus validated the Hypothesis 4.

Table 12.

Results of Mediation Analysis (Barron & Kenny Approach, 1986)

Regression	Adjusted R Square	Standardize Coefficient (Beta)	p-value
Regressing OE on LO (Regression 1)	.838	.915	.000
Regressing OC on LO (Regression 2)	.535	.731	.000
Regressing OE on OC controlling for LO Beta for LO (Regression 4)	.854	.185 .755	.000

Findings & Discussion

There is a lack of research exploring the relationship of organizational commitment, learning organization practices and organizational effectiveness in the context of Pakistani culture. Presently, the cellular companies of Telecommunication industry of Pakistan are facing competitive challenges in the market and this perspective is crucial to their understanding the relationship of organizational commitment and learning organization practices to achieve organizational effectiveness. This research study was carried to fill this identified gap in the light of existing literature with the purpose to study the mediating effect of organizational commitment on the relationship of learning organization practices and organizational effectiveness specifically in the Telecommunication industry of Pakistan.

Organizations strive hard to achieve organizational effectiveness for excellence when striving in competitive mode (Escring-Tena & Bou-Llusar, 2005; Porter, 1984). These organizations aim to enhance the extent of learning organization practices adopted that build the horizon and knowledge of managers relating the

surrounding environment in which they and their organization are operating. The aim is to improve the organizational effectiveness by enhancing the learning environment in the organization. In this connection, the first hypothesis was proposed and results also indicated that learning organization practices have significant strong positive effect on organizational effectiveness. Thus, the first hypothesis was supported by this research study. This was also consistent with the theoretical claim of previous authors; Ahmad & Bakar, (2003), Jones (2000); Dodgson, (1993), Fallon & Brinkerhoff (1996) indicating that the learning organization practices are related to the organizational effectiveness and performance. It indicated that the continuous learning of employees enabled them to improve their abilities with better understanding of the surrounding environment, thus enables them to boost the organizational effectiveness.

Previous research studies also supported that the learning organization practices, assists in enhancing the commitment in employees, paving the way towards the organizational effectiveness (Ahmad & Bakar, 2003; Marsick & Watkins, 2003; Kontoghiorghes & Bryant, 2004; Bartlett, 2001). Chou & Kwon (2005) also argued that committed employees are more motivated to learn. In this connection, the second hypothesis was proposed and the results showed that learning organization practices have significant strong positive effect on organizational commitment (OC). This is consistent with the theoretical claim of previous authors; Cho & Kwon (2005), Bhatnagar, (2007), McMurray & Dorai, (2001), Atak, (2011); Agahei et al., (2012). It indicated that employees of learning organization who were given learning and developmental opportunities consequently induced the employees with the positive attitude that their organization will provide more growing and developmental opportunities to them for further development in their career path consequently increase the commitment level of employee of an organization.

Existing literature also supported that the organizational commitment positively impacts the organizational effectiveness (Angel & Perry, 1981; Steers, 1977). Committed employees facilitate the ability of the organization as their commitment to their work performance consequently increases the work efficiency of the organization. This research study has proposed and the results also indicated that organizational commitment has significant strong positive effect on organizational effectiveness. Thus, the third hypothesis was supported by this research study which indicated that the more committed employees are intrinsically more motivated to perform well for the benefit of the organization, thus enhances the organizational effectiveness. In addition to this, this research work also aimed to study that whether the mediation effect of organizational commitment exists between the relationship of learning organization practice and organizational effectiveness and the results revealed that organizational commitment partially mediates the relationship of learning organization practices and organizational effectiveness as indicated in Regression Analysis results.

The finding of this research study suggests that learning organization can be viewed as a key antecedent factor for organizational commitment as well as the antecedent for the organizational effectiveness. It was found that organizational commitment has positive impact on organizational effectiveness and learning organization practices relationship. Thus, the findings not only give the new dimensions for future research by exploring other key variables mediating the relationship of learning organization practices and organizational effectiveness, in addition also provides major implication for organizational research that strengthen the learning organization practices is a wise strategy to achieve organizational effectiveness as the organization with strong learning organization practices serves better than other organizations to develop the commitment in employees, thus developing the

organizational commitment to further foster the organizational effectiveness in competitive environments.

Conclusion

Based on the research findings it was found that the learning organization practices have strong effect on organizational commitment and organizational effectiveness, and organizational commitment has strong effect on organizational effectiveness. Three major concluding remarks of this research study are as follows:

Firstly, the cellular companies of Pakistan should consider the conception of learning organization practices as a competence and a resource for business success. Empowered knowledge worker, learning capabilities of organization, connecting environments and creation of learning systems are the core resources and competencies of organization which could not be substituted and are difficult to imitate. This research study suggests that the cellular companies of Pakistan need to build an environment of collaboration among employees and the environment fostering team learning that will enhance the efficiency of organization. Consequently, pushes the organization to develop its capabilities through knowledge workers, striving for organizational effectiveness. Secondly, the results also identified that the committed employees who are willing to exert effort on behalf of organization further enhances the organizational effectiveness. Employees feel more committed when they are well aware of their working roles with respect to the organizational goals. This immense commitment of employees regulating in environment of collaboration and team learning enhances the working efficiency of employees in respect of organizational goal, thus enhancing the organizational effectiveness. Finally, this research study concludes that the learning organization practices and the organizational commitment are two key guaranteed practices by which the organizations can achieve the organizational effectiveness in the context of the Telecommunication industry of Pakistan.

Managerial Implications

Firstly, this research study provides the practitioners with the practical method of understanding their organization by identifying the degree to which the seven dimensions of LO practices are adopted in their organizations. Based on the study of Marsick & Watkins (1996), the practitioners must focus on the seven key dimensions of learning organization mainly; (i) continuous learning, (ii) inquiry and dialogue, (iii) team learning, (iv) creating system, (v) connecting environment, (vi) people empowerment and (vii) strategic leadership to help their organizations flourish in the competitive dynamics. HR practitioners of cellular companies of Pakistan need to pay attention to these key issues to improve their organizational effectiveness.

Secondly, this research study has enabled the theories of learning organization, organizational commitment and organizational effectiveness to be applied in HRD practices in the context of Pakistani culture. The results of this research study indicate that the DLOQ, OCQ and SOO are the useful instruments for measuring these three study variables in Pakistani organizations. Practitioners of Pakistani organizations can use these research measures to get the clear snapshot of learning organization practices adopted and the degree of commitment of their organizations to assess the organizational deficiencies and loop holes in fostering learning culture and commitment to employees.

Thirdly, the organizations should nurture such learning culture with the support of management in which the employees can achieve their work goals through the team learning and collaboration. Cross-sectional teams must be encouraged with the interactive environment. Teams serve as a good source of learning for the employees if the employees are inclined with trust to share with their ideas without fear which requires a supportive and trustworthy culture of organization. The HR practitioners must focus on this key issue.

Fourthly, employees must be given appropriate authority to accomplish their work activities as the empowered employees tend to own their work activities that enabled them to produce the desired results effectively. The management of Cellular companies should ensure that clear direction and support for their work activities may be given to employees, thus fostering the organizational effectiveness.

Fifthly, practitioners of Cellular companies of Pakistan must ensure that knowledge is properly transferred to all employees of the organization including the information of successes, failures, strengths and loopholes of organization. Thus, it will establish the learning systems that organization gathers the knowledge from all sub-units then joins these pieces of knowledge into refined utilizable information and ensures the accessibility of this information to which it is concerned. This would result in a well aware knowledge worker who will strive for the organizational effectiveness as they were conceiving that their participation is worthwhile. Moreover, it will also result into an establishment of learning systems in organization.

Sixthly, HR practitioners of Cellular companies of Pakistan must pay attention towards the developmental opportunities such as coaching, mentoring, on-the-job experience, management development and career development of employees. This will establish the learning culture within the organization and additionally it will also encourage the employee towards learning and thus induces the commitment in employee due to better career development opportunities.

Lastly, organizational goals must be communicated and make it understand to each and every employee of organization in a way that employee's working goals must be align with the organizational goal. Employees may need to understand their contribution in the organizational objectives, thus it will induce the employees with the intrinsic motivation for efficient working resultantly employees will be more committed with the increased organizational commitment.

Future Research Directions

This research study lays the foundation for further future research to explore the causal relationship of study variables organizational commitment, learning organization practices and organizational effectiveness in other sector / industries of health, education, public, private, corporate, petroleum, manufacturing, FMCG, textiles, IT etc. to develop understanding relating the nature of relationship of variables in broader context.

Secondly, this research study was exploratory in nature, and previously no research study has been conducted on mediation effect of organizational commitment on relationship of learning organization practices and organizational effectiveness in Telecommunication industry of Pakistan, therefore it has opened a new way for further researches by taking in consideration the other variables of moderation effect that are not covered in this research study.

Thirdly, further research may be carried by using the different statistical techniques of MANOVA or Structural Equation Modeling for further validating the relationship of study variables of this research work. Furthermore, the multiple research design of case studies and qualitative research can be implied to observe and reconfirm the findings.

Lastly, it is also recommended that the hypothesized theoretical model may also be tested and verified by using different research instruments for the study variables. It is also further suggested that this research study may be repeated by using other research instruments and research methodologies as the concept of learning organization practices with the organizational commitment and organizational effectiveness have been rarely researched in Pakistani culture.

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NON-ACCESSIBILITY OF BANK FINANCING TO NEWLY ESTABLISHED SMEs

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Abstract

Access to bank finance has been identified by newly established Small & Medium Sized Enterprises (SMEs) as the single most important impediment in the development and growth of SME sector. According to LUMS study, this problem has increased for those SMEs having lesser experience (i.e. less than three years). The purpose of this study is to examine whether banks, which have the largest share in SME financing, are providing both short term and long term financing requirements for the newly established SMEs. If not, what alternative financing sources (AFS) are available to provide the required financing to the newly established SMEs. The primary data about years in business and access to bank financing by SMEs was collected from fifty SMEs within the city of Karachi. Results derived from the analysis of this data confirm that there is a positive direct correlation with the accessibility to bank finance by SMEs with the number of years of SMEs in operation.

Keywords: Newly established SMEs, Bank financing, Alternative Financing Sources.

JEL Classification: G 200

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Introduction

The newly established SMEs (means those SMEs having started their businesses not more than 3 years ago) are enterprises that have established their businesses from their own limited equity and require both short term and long term financing to develop and grow their businesses.

The newly established SMEs present a higher credit risk than an established SME which is in business for more than 3 years. The established SMEs have collaterals and known cash flows that allow bankers to assess business risk. By its nature, the risk profile of the newly established SMEs is much more difficult to assess as the newly established SMEs often lack both a past credit record and the desired securities needed to secure a loan, thus they represent a high degree of credit risk which commercial banks are unwilling to take considering thin profit margin with high risk. Another reason why banks are finding it difficult to extend loans to SMEs is their failure to obtain matching deposits with the lending period. According to SBP, the fixed deposits of the banks for five years and above are just 7.7 % of the entire fixed deposits (Daily Dawn 2013).

A firm's short term and long term financing needs increase as it grows. The sources of financing needed by the newly established SMEs are not the same as those needed by the SMEs that are in operation for many years and have credit history and collaterals acceptable to banks. As a result, the newly established SMEs obtain financing from informal sources like owners' savings, friends, relatives etc.

In order to prove the existence of a relationship or dependency of accessibility of bank financing to the number of years of SMEs in operation, primary data about years in business and access to financing was collected from fifty SMEs within the city of Karachi

and then regression analysis was conducted using SPSS program. Secondary data was also collected from various sources in order to identify alternative sources for the newly established SMEs.

This paper confirms that commercial banks are reluctant to finance in fulfilling the financing requirements of the newly established SMEs due to lack of established track record and collaterals. We found from the regression analysis that there is a positive correlation of the accessibility to bank financing by SMEs with the number of years of SMEs in operation. AFSs (list attached as Annex-A) are more suitable for the newly established SMEs due to their expertise to deal with such SMEs and having both, short term and long term deposits and credit lines. These AFSs have successfully served the newly established SMEs in developed countries that can also be used in Pakistan.

The rest of the study is organized as follows: Section 2 gives literature review. Section 3 discusses the hypothesis. Section 4 discusses the Methodology. Section 5 analyses the data using SPSS. Section 6 shows the results derived. Section 7 provides conclusion and recommendation. References are given at the end.

Literature Review

According to the revised prudential regulations for SMEs issued in 2013 by the State Bank of Pakistan, SMEs have been defined as:

A Small Enterprise (SE) is a business entity which meets both the following parameters:

- Employs up to 20 employees and
- Having an annual sales turnover up to Rs. 75 million

Medium Enterprise (ME) is a business entity, ideally not a public limited company, which meets both the following parameters:

- Employs 21 to 250 employees in case of manufacturing & Services and 21 to 50 employees in case of trading businesses; and

- Having an annual sales turnover of Rs. 75 to 400 million in both the cases.

Berger & Udell, (1998), described in their report that as the newly established SMEs are not having an established track record, banks are usually hesitant to lend to these firms. They further added that the importance of the types of financing can be explained by the findings that about 23.7% of newly established SMEs disappear within the first 2 years and further 52.7% are vanished in a time span of 4 years and the major reasons behind their failure are the bankruptcy, owner's health, and access to financing options.

Klapper, Sarria-Allende and Sulla (2002) described in their report that the newly established SMEs (those established in less than four years), rely more on informal financing and less on bank financing.

Fatoki and Asah (2011) observed that SMEs established for more than five years have a far better chance to be successful in their credit applications compared with SMEs established for less than five years.

Afaqi, Seth and Saeed (2009) has commented on the SME Baseline survey conducted by SMEDA in Pakistan that SMEs prefer to obtain personal financing for business instead of bank financing and informal financing sources as 65.77% SMEs prefer personal financing option as compared to 6.80% bank financing and 6.11% informal financing, even if all sources of financing were equally available.

Bari, F., Cheema, A. & Ehsan-ul-Haque., (2003), investigated that banks do not usually finance newly established SMEs in Pakistan and such SMEs get the least financing from banks. As the number of employees and age of firms increase, the accesses to bank financing also increase.

According to NBFIs and Modaraba Association of Pakistan Year book 2011, AFSs have provided key role in financing to all types of

businesses including SMEs amounting. They financed to all sector Rs.124 billion in 2008, adding to the financial sector's diversity, stability and viability in the long-run. This situation changed drastically after 2008 due to the financial melt down and increased in the discount rate substantially, all financial institutions diverting their financing towards treasury bonds from corporate and SMEs.

Hypothesis

Purpose of Study

The purpose of this study is to examine whether the access to bank financing by SMEs in Pakistan is affected by SMEs' number of years of operation.

Problem Statement

SMEs face many difficulties in accessing to financing from banks at their early stage of business life cycle. Banks are hesitant to finance newly established SMEs because they believe that SME sector financing is risky as these SMEs have no past track records and collaterals. Banks prefer to provide short term finance to established SMEs having many years of track record of successful running of the businesses where as newly established SMEs require both short term as well as long term financing for their business development and growth with no past track record and collaterals. Almost 90% of newly established SMEs are being self-financed by their owners and because of limited financial capacity of owners, possible growth / development of SMEs is being hampered due to non-availability of required financing. That is why SMEs need AFSs which will contribute towards development and growth of SME sector by meeting the financial needs that bank does not satisfy.

Research Hypothesis

Following hypothesis has been formulated to study whether the banks' financing decisions are affected by SMEs number of years of operation or not.

Null Hypothesis: There is no positive correlation of bank financing and SMEs number of years of operation in Business.

Alternate Hypothesis: There is a positive correlation of bank financing and SMEs number of years of operation in Business.

Methodology of the study

This study has been based on both primary and secondary data. Primary data has been collected by personal interviews through a structured questionnaire from fifty (50) SMEs in Karachi. Secondary data has been collected from the published official statistics, reports, documents, books, articles, periodicals and different reports of State Bank of Pakistan.

A regression analysis was conducted on primary data to analyze and interpret the data of 50 SMEs in Karachi through Statistical Package for Social Sciences (SPSS).

Analysis of Data using SPSS

Correlation between accessibility of bank financing with numbers of years in business.

Access to Bank Finance = f (number of years in business)

Descriptive Statistics

	Mean	Std. Deviation	N
Years in Business	2.5400	1.12866	50
Accessibility of Bank Loan	2.6800	1.09619	50

Correlations

		Years in Business	Accessibility of Bank Loan
Years in Business	Pearson Correlation	1	.835**
	Sig. (2-tailed)		.000
	N	50	50
Accessibility of Bank Loan	Pearson Correlation	.835**	1
	Sig. (2-tailed)	.000	
	N	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

Correlations

		Accessibility of Bank Loan	Years in Business
Pearson Correlation	Accessibility of Bank Loan	1.000	.835
	Years in Business	.835	1.000
Sig. (1-tailed)	Accessibility of Bank Loan	.	.000
	Years in Business	.000	.
N	Accessibility of Bank Loan	50	50
	Years in Business	50	50

Summary

Model	R	R Square	Adj. R Square	Std. Error Estimate	Change Statistics				Sig. F Change	Durbin-Watson
					R Square Change	F	df1	df2		
1	.835 ^a	.698	.691	.60891	.698	110	1	48	.000	2.106

a. Predictors: (Constant), Years in Business

b. Dependent Variable: Accessibility of Bank Loan

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	41.083	1	41.083	110.806	.000 ^a
	Residual	17.797	48	.371		
	Total	58.880	49			

a. Predictors: (Constant), Years in Business

b. Dependent Variable: Accessibility of Bank Loan

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.619	.214		2.896	.006
	Years in Business	.811	.077	.835	10.526	.000

a. Dependent Variable: Accessibility of Bank Loan

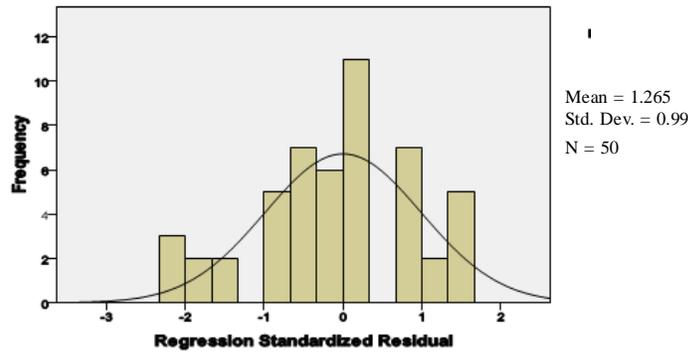
$$AcBF = \alpha + \beta (\text{yrs.})$$

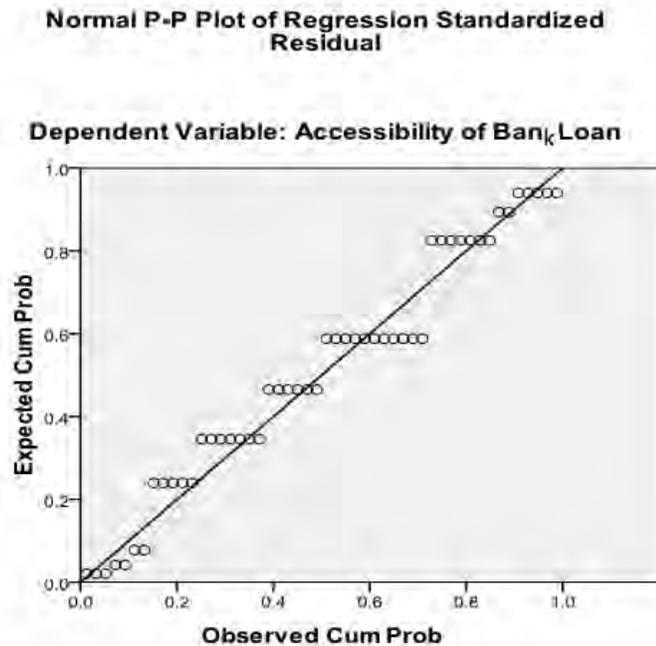
$$= 0.619 + .811(\text{yrs})$$

T test .811 shows significant relationship. F test shows that overall regression (model) is statistically valid.

Histogram

Dependent Variable: Accessibility of Bank Loan





Results

To prove the existence of a relationship of dependency of accessibility of bank financing on number of years of operation, regression analysis was conducted using SPSS program. The analysis resulted in an R square of 0.698 which means that approx. 70% of accessibility to bank financing can be explained through number of years of operations of SMEs. Pearson correlation between the two variables is high at 0.835 and is significant at the 0.01 level (2-tailed). Slope coefficient of regression equation shown above is 0.811. It is significant at 1% level of significance. Therefore, we conclude that there is a positive relationship between accessibility to bank financing by SMEs with the number of years of operation of SMEs, so the null hypothesis is rejected and the alternate hypothesis is accepted. It is, therefore, confirmed from the above results that access to banks'

financing by SMEs in Pakistan is significantly affected by SMEs number of years of operation and the banks do not usually finance newly established SMEs because they do not have past track record and collaterals which are the bases of banks' traditional lending approach .

Conclusion & Recommendation

In Pakistan, limited access to bank financing is one of the major areas of concern for SMEs development and growth. Banks need to have the financial expertise to identify and mitigate credit risk involved in the newly established SMEs financing along with access to both short term as well as long term financing that matches with the newly established SMEs financial requirements. The financing approach of banks in the country is largely traditional that does not suit the special characteristics of the newly established SMEs. They mostly subscribe to the view that collateral minimizes the risk for the lenders. Banks have short term deposits and expertise in providing short term financing to already establish SMEs. Therefore, they are unable to provide short and long term financing to the newly established SMEs.

The State Bank of Pakistan should explore alternate financing sources for the newly established SMEs as the banks are reluctant to provide financing to such SMEs. AFSs are very popular in developed countries and such sources may provide required financing to newly established SMEs in Pakistan also. These AFS provide a greater choice; promote competition amongst finance providers, potentially reducing cost and lead to greater resilience in the financial system. Therefore, AFSs focus more on the expected cash inflows rather than collaterals and past track record.

Since only a couple of these listed AFS exist in Pakistan and that too in small numbers, there is a need to develop and promote them by the government which would facilitate in the growth and development of SMEs in Pakistan.

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Annexure-A

The following are some alternate sources of financing.

i. Lease financing:

The main focus of leasing company is cash flows generated from use of assets and if cash flows are sufficient to pay off lease rentals, they approve lease facility irrespective of whether it is a newly established SME or well established SME.

ii. Modaraba Financing

Modaraba, a mode of Islamic financing, is assuming importance in our financial system and has shown a considerable growth over the last two decades. Modaraba is most suitable for those SMEs having inability to provide collateral, acceptable to banks. Modaraba is a partnership between capital on one side and personal effort on the other. In this system of business, proportionate share in the profit is determined by mutual agreement. But the losses are to be borne by the investor of the capital. Entrepreneurs in SME sector are more inclined towards using Shariah-compliant products and services provided that required products are available with competitive features and pricing of traditional products.

iii. Venture Capital:

Venture Capital (VC) is an effective option for newly established SMEs. Venture capital by definition is an equity type financing in early phase of businesses in order to support their growth and development. Since VC is similar to partnership rather than loan, therefore there is no burden on SMEs to pay fixed loan instalments but share in the profitability from VC. This implies that return on funds invested through VC in any business depends upon the profitability of that business. Therefore, VC can be a good source of financing for newly established SMEs.

iv. Personal Loan

Another good way to obtain needed capital is by getting a personal loan by the owner on his/her personal credit worthiness and assets rather than a loan under the business name. The entrepreneur can get long term financing from housing companies by providing his/her home as collateral.

v. Angel financing

It is very popular form of financing for newly established SMEs by wealthy individuals who have vast related experience in the same industry. Usually they don't invest in shape of loan. Instead, they get some share of profit in a newly established companies. They can act as advisors and mentors to [entrepreneurs](#) on how to make their businesses successful.

vi. Supplier financing

Large size companies nowadays downsize their operations to focus on their expertise and get the benefits of economics of scale. They provide financial and technical assistance to their suppliers.

vii. Government-sponsored Financing programs.

All over the world, governments provide financing to newly established SMEs at concessional rates in order to provide job opportunities to youth, reduce poverty alleviation and economic development. The central government has a long history of helping new businesses get started, primarily through the different federal programs.

viii. Invoice Discounting

Finance can be raised against accounts receivable via invoice discounting or invoice factoring, thus improving cash flows of SMEs. Debtors are used as the prime security for the lenders and SMEs may obtain up to 80-90 per cent of approved debts.

ARE PRIVATE BANKS IN PAKISTAN LEARNING ORGANIZATIONS?

Tazeen Arsalan¹

Abstract

This paper reviews and analyzes the essential literature on Learning Organizations. The purpose of the study is to assess if private commercial banks operating in Pakistan are learning organizations or they are traditional organizations. The study also explores and analyzes various private banks operating in Pakistan and identifies elements which are similar and dissimilar in private commercial banking industry and learning organizations. To assess the learning capacity and culture of private banks, Don Clark's learning organization model is used. The findings conclude that the private commercial banks in Pakistan have most of the essential elements necessary to become learning organization but would still need to improve and create the remaining elements to be classified as learning organization.

Keywords: Learning Organizations, Organizational development, Individual learning, Banking sector in Pakistan.

JEL Classification: G 210

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Introduction

Banking has become one of the most important sectors in any economy. The development and advancement of any economy lies majorly in the hands of the banks as over the years banks has become the major debt financier. In Pakistan the banking industry is thriving and contributing to approximately eighty percent of the total debt taken by the corporate sector. As the banks stretched its product base the competition among various banks became more intense. Each bank wants to outshine the other bank by introducing different products while retaining the old ones. Organizations and industries which gives due importance to learning would be the only one who would be able to survive the immense competition provided by other organizations in the same industry and also organizations in other industries. The competition is more intense among private commercial banks. Organizational learning researchers declare that continuous learning is required for discovering and sustaining competitive advantage. (Armstrong & Foley, 2003; Baldwin, Danielson & Wiggenhorn, 1997; Goh & Richard, 1997; Kontoghiorghes Awbrey, Feutiz 2005; Liedtka, 1996; Porth, McGall & Bausch, 1999)

The concept of learning organization states that the organization has the capability and capacity to continuously learn by developing its core competency in human resource. Such organizations believe that the only way to survive the amounting competition is to add, reduce, create and eliminate organizational knowledge by making learning as an integral part of the overall organizational culture to reap future superior performances and return.

Organizational learning is based on the assumption that the employees of the organization are capable of intelligent behavior and learning is a tool for intelligence which means that without learning intelligence would not have any impact and effect. Organizations every day experiences new findings, interprets the finding and disseminate

the information among various level of hierarchy. The finding and interpretation is usually influenced by previous experiences and learning which makes the organization learning process as a complex process of current findings, past experiences and lessons learnt.

In the past it was possible for one person to run an organization but in current times, it is impossible to lead the organization to success if all the employees are not motivated to learn and change accordingly. Managers of present times should find out solutions to the problems by applying their individual learning rather than using past solutions. (Baldwin, Dannielson & Wiggernhorn, 1997)

Employees or workers of a learning organization are totally “awakened people” as they are aware of the new development in their own organization as well as industry in which the organization operates. Every day they try to learn something new which will help them in reaching the heights of their own as well as their organization’s potential. This continuous strive for learning makes the jobs more interesting and satisfying as the employees feel that learning is not only beneficial for the organization but is also beneficial for themselves. These “awakened workers” are more prone to take risk in order to continue their learning process and also responds well to changes and have less difficulty in adopting the change.

Thus a learning organization tries to develop and create its own future by continuously learning from experiences and implementing and adapting to the changes required to excel in individual’s as well as company’s performance.

A numbers of researches have been developed and published regarding the literature on learning organization but very few addresses the issue of measurement of learning organization. In Pakistan, the concept of learning organization has started to be given

importance but so far no research has been conducted in evaluating the measurement of banks in terms of learning organization.

Literature Review

The banking industry globally is going through various changes as the competition within the industry is growing rapidly. Each bank wants to develop a strategy through which it would be able to sustain its competitive advantage and continue to serve the increasing number of customers by adopting better and improved methods of satisfying its customers. In order to introduce innovative products and learn from past mistakes each organization would have to evolve into a learning organization by enabling and developing an environment in which its employees are able to learn from daily activities and are able to incorporate learning on a continuous basis to face the future challenges. The learning organizations believe that mistakes of daily activities should be taken as opportunities to learn for future competition. The following researchers described and explained learning organization's concept in the following manner:

Gould-Kreutzer Associates, Inc. (1950) introduced the concept of "Systems Thinking" in which he discusses the need of organizations to concentrate on company's needs and requirements as well as individual employee's needs and requirements.

Chris Argyris (1970), carried forward the same concept by a new name "Learning Organizations". Chris Argyris from Harvard was one of the early researches of this time who also published a book but the concept was not able to create the true understanding of the concept. In his book written with Donald Schon the concept of single and double loop learning was presented. They believed that individuals are key element through which organizations learn. The single loop learning occurs when an organization continues to exist without changing its norms, policies and objectives and tries to handle and modify each situation without altering the former. Double loop learning

occurs when norms, policies and objectives are changed according to the current requirement and future need. According to the book the organization requires both types of learning.

Kolb (1984) declared that learning organizations are created when communication of all the individuals in the organization is well established and individuals share information based on their knowledge and experience.

Peter Senge (1990) in his book “Fifth Discipline” discussed that every organization has an interaction between its internal and external systems which triggers four major forces, namely; building shared vision, mental models, team learning and personal mastery. He claimed that these forces are very difficult to understand if an organization is following traditional assessment systems.

Peter Senge (1990) declared that learning organization is based on five disciplines. The first discipline “Personal Mastery”, means aiming to learn individually to achieve the desired outcomes by increasing the personal capacity and also continuously working towards developing a learning organization where every individual can achieve their respective desired results. The second discipline “Mental Models” includes analyzing, assessing, and correcting the mental images in order to be effective and efficient. The third discipline, “Shared Vision” indicates creating loyalty among the groups so they can achieve the desired result as collectively developing principles which serves as a way to get to the desired destination. The fourth discipline “Team Learning” stresses collective working in a group by benefitting from individual skills so that the group as a whole is able to achieve better results than each individual in a group while the last discipline “Systems Thinking” means transforming the system in order to make it more effective and compatible with the world.

Peter Senge (1990) believed that the leader should act as a steward who paves and directs the way to transform the organization

into a learning organization. According to him the process of learning organization is a group task in which individuals benefit from each other's skills to create new attributes and skills. Due to this interactive learning an environment of trust and confidence is build which helps in discussing uncertainties and mistakes. The framework of learning organization consists of guiding ideas, innovations in infrastructure, and theory, methods and tools. The guiding ideas include the vision, mission, objectives and purpose of the organization. They need continuous improvement to be more effective and apt to the current world. The building of different theories, creating the models and testing the tools help the guiding ideas to change for the betterment. These changes create innovations in infrastructure and help the organization in developing and establishing "Systems Thinking".

Learning organization helps individuals to learn from sharing information with the group, benefitting from other's skills, making mistakes and learning from the mistakes. Following the publication of *The Fifth Discipline*, *The Fifth Discipline Fieldbook* (Senge, Roberts et al. 1994) and *The Dance of Change* (Senge, Kleiner et al. 1999) was published which discussed individual learning in relation to the organization's learning and revealed that learning organization and individuals part of such organization both can benefit by taking certain steps to enhance development and growth. In short, Senge's theory is based on the interaction between different individuals in an organization.

The literature review also supports the following views:

According to Simon (1991) organizations do not learn, individual's learn. Simon revealed that organization learn through individuals in two ways. The first way is to learn through already existing individuals while the other is to learn by including new individuals. The crucial part is to understand what information or knowledge is held by already existing individuals and if the organization can access it in time of need.

David Skyrme (1995) declared that the framework of learning organization cannot be developed until an organization is able to enhance the mental capacity of all the individuals linked to the organization. According to Skyrme this enhancement on individual level will result in the improvement of an organization and community in which the organization exist. He states that there are four essential elements required to build learning organizations. The first is the culture of the organization. The second is the process through which its members interact with each other. The third are the tools and techniques required for individual and collective learning and last is skills and motivation required to learn and adopt.

Anthony DiBella (1995) stated that organizational learning is the capability of the organization to learn and benefit from its past experiences. This activity includes organizations learning from its processes by developing skills, knowledge and relationships, information dissemination among the employees and benefiting from the developed and disseminated information and knowledge. DiBella's book "How Organizations Learn" published in 1998 reviews the literature available on Learning Organizations of that time and classifies the literature into three categories. The first category is based on normative view which states that learning in learning organizations only take place under certain measures and conditions. The second category is based on development view which declares each learning organization as it matures develops and creates its own learning skills, processes and culture. The third category is based on capabilities view which states that every organization has their own exclusive learning styles and as the organization matures it identifies its own capabilities which helps the organization in creating a learning environment.

Peter Klines (1998) emphasized on cultural change in "Ten step to learning organization". He states that in order to have a learning organization it is essential to have learners as part of team and then motivate and guide them into creating a learning organization.

He further states the difference between learning individuals and learning organizations. Learning individuals according to him are the ones who store what they learn in their memory or their private journals while learning organization store their learning in their cultural environment, ethics, policies and documents. Kline reveals that people are resistant to change, which makes the change from being a traditional organization to learning organization difficult. He gives certain measures including assessing the current learning culture, promoting and motivating learning culture, communicating the need, minimize the uncertainty etc which can reduce the resistance to change.

Kline (1998) defined that learning is a continuous process to find better solutions. He also agrees with Peter Senge concept of team learning to enhance performance. He identifies three element of learning organizations in his book. The first element is to know all the rules but work with only those which would lead to efficient productivity. Second is to measure the outcome and last is to eliminate or reduce the barriers between the hierarchies of employees. In his book Kline has also proposed a model to analyze and determine the organization's culture based on ten questions which needs to be filled by individual employees and then discussed at group levels. Once the answers are computed the overall average result of all the employees can be calculated for each question. The final result is then shared with the employees and they are asked to voice their agreements and disagreements. Once the results are satisfactory at all the spheres, the organization is instructed to work on the areas which require change in attitudes and behaviors through different team building activities. Kline's book presents a practical solution for building groups to transform into Learning Organization.

Hyland & Matlay, (1997) declared that an organization's learning is sum of all the individual's learning within a particular organization. According to De Guess (1998), the organization in the current world can only compete effectively if they develop such a workforce which is able to learn at a much faster rate than the other

organizations. He declares that such learning workforce development is the only sustainable competitive advantage in present times.

Mark Easterby-Smith, John Burgoyne, and Luis Arujo (1999) in their book "Organizational Learning and Learning Organization: Developments in Theory and Practice" along with theory given by different researchers on organizational learning and learning organizations provided evidence related to problems and issues related to the development of organizational learning and learning organization. Empirical evidence on organizational learning and learning organization is very rare. Most of researches which are conducted do not include new empirical data. Researchers conducted in the field has been done as a researcher being an active participant, focused on small setting in an organization, processes involved in learning outcomes and learning outcomes. The authors suggested that in their opinion there should be more researches in micro settings. Apart from empirical evidence there is also a need for theory advancement to which sufficient attention is not being paid. Another problem which was discussed in the book is related to over utilization of ideas and theories which were written not in recent past and usually have short shelf lives due to ever changing world dynamics. The book also provides empirical evidence on the topic applied on three retail banks in UK, concluding that the organizational learning is dependent on individual learning, culture of the organization and work content itself. Banks which does not promote learning are mostly centralized, in which fear among employees to voice their opinion was also noticed. Such organizations have frustrated employees and high turnover.

Fredric Simon and Ketsara Rugchart (2003) declared that an organization which continuously puts in the effort to build its efficiency to achieve the desired results is a learning organization. They believed that if lessons from failures are taken positively, the organization can build more open and knowledge sharing environment.

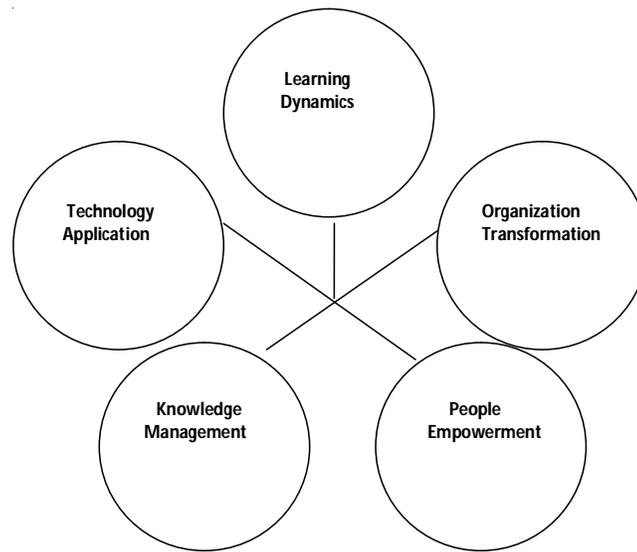
John McAvoy and Tom Butler (2007) in their research paper “The impact of the Abilene Paradox on double-loop learning in an agile team” qualitatively investigated learning failures related with the introduction of a new software development methodology by a project team. The research emphasized that learning changes behavior as well as beliefs and does not restrict itself to cognitive process of acquiring a new expertise. The paper utilizes single loop and double loop learning concept and found that factors related to power influence group and individual learning. Also, groups often make decisions which contradict with individual beliefs. This is due to individual desire to conform among group members but eventually leads to ineffective learning.

Ngesu Lewis, Wambua Kyalo Benjamin, Ndiku Juda and Mwaka Marcella (2008) in their research paper “Universities as learning organizations: Implications and challenges”. The paper focuses on public universities in developing countries and discusses creation of continuous learning opportunities, promoting effective communication; encouraging alliance and team learning; developing systems to capture and share learning; empowering people towards a unified vision and linking the organization to its environment. According to the research there is a need for radical rethinking as well as re-engineering to improve the systems and learning of public universities in developing countries. The authors proposed that in their view individual learning develops into organizational learning which provides as the means to achieve strategic goals. The research suggested that it is management’s duty to form effective systems. In the end research suggested that one way to build learning organizations in universities of developing countries is to retain competent old employees which can develop into effective leaders of tomorrow.

Don Clark (May 2000) in his model of Learning Profile Matrix tries to evaluate the organization on the basis of five spheres. The model is uploaded on his website and includes analyzing the individuals working for an organization along with the organization on the basis of learning dynamics, organization transformation, people

empowerment, knowledge management and technology application. The model when applied on an organization gives detailed insight about an organization's learning capacity and also assess whether an organization has the required elements to be a learning organization or not.

Don Clark's (May 2000) learning profile matrix model



Banking is one of the most formalized sectors in Pakistan. Continuous changes in the business environment has made it mandatory for the profitable sectors to convert into learning organizations so that they can continue to provide innovative and better performance year after year. The objective of the study is to evaluate the learning environment in the banking industry of Pakistan.

Based on the literature review the following hypothesis is formed:

H1: Private commercial banks operating in Pakistan are learning organizations

Scope & Methodology

This paper aims at studying the learning culture in private commercial banks of Pakistan to conclude if private banks operating in Pakistan are learning organizations or they still operate as traditional organizations. It also analyzes the variation between learning organizations in private banking industry of Pakistan which is the largest industry in Pakistan in terms of profitability, growth and employment generation. It is the most formalized and structured sector. The banking industry in Pakistan is divided into Private Banks, Public Banks, Specialized Banks and Foreign Banks. There are 38 banks operating in Pakistan, among which there are 22 private banks on which this research is based.

This study would act as a preliminary research and can lead to a more comprehensive research in future.

The sample size of the study included 50 participants from five different private commercial banks operating in Pakistan. The sample size was 50 due to central limit theorem which states that "if a random sample of n observation is selected from any population then, when the sample size is sufficiently large ($n \geq 30$), the sampling distribution of the mean tends to approximate the normal distribution" (Arjomand, 2002, par. 5).

The list of hierarchy in corporate banking division was procured from different banks. Among them senior managers and managers were targeted. Only individuals who had been with the bank for the last one year were included as participants. The one year requirement would assure that all the participants have sound organizational knowledge.

The participants were given confidence about the confidentiality of their personal information and identity. The researcher also explained the purpose of the research before the

questionnaire was sent to the participant. The participants was also given the liberty to withdraw from participation if they wished. All the above was able to build firm trust and rapport between the researcher and participants.

In order to study the learning culture in Pakistan's private Banking industry Don Clark's model of "Learning organization profile matrix" is used, which assess the banking culture from five different angles. The model tries to assess each bank from the perspective of individual as well as organization. Don Clark is considered to be excellent resource in the training industry. There are two other learning assessment tools which were also considered. The first learning tool was the Learning History by Roth and Kliener (1995) while the second was the Organizational Learning Profile by DiBella (2001). Don Clark's model was chosen because it also included the aspect of technology and knowledge management which are considered to be an essential element for the success of any organization.

Data were collected by a mail questionnaire using a modification of the procedures recommended by Salant and Dilman (1994). The study was performed between December 2012 and January 2013.

Twenty five Likert-scale questions were developed based on Don Clark's model. Likert-scale questions were used as it has low cost attached and data collection is standardized. However such questionnaires have their limitations as they are dependent upon the participant's attitude, behavior, motivation, learning capacity and ability to recall. (Patten, 2004). Ten questionnaires were filled from each bank's corporate banking department. Sampling is based on random sampling technique where each individual has equal chance of being chosen for participation and also has an equal chance of not being included in the sample.

The model assesses the organization on the basis of learning dynamics, organizational transformation, people empowerment, knowledge management and technology application. Each individual from the sample fills the questionnaire rating each question from 1-4. The lowest score 1 depicts that the question asked is applicable to the applicant's organization to a minor magnitude. Score 2 indicates that the asked question is relevant to a moderate magnitude while score 3 reveals that it is applicable to a great magnitude. The highest score 4 depicts that the question asked is completely applicable to the applicant's organization.

The maximum score of all the questions is 100. According to the model used, if the result lies between 81-100, the organization is declared as learning organization as it not only has all the elements of a learning organization but also utilizes all the elements. Scores lying between 61-80 proves that organization has a solid learning foundation but is required to use the elements to take the benefit of being a learning organization. If the overall scores lies between 40 – 60, it reveal that the organization has some key elements required to be a learning organization but the remaining elements are missing and if the score lies below 40 it shows that all the elements required to become a learning organization are missing.

The data was compiled on SPSS and the validity of the data was checked through exploratory factor analysis, which also leads to the formation of hypothesis. Descriptive statistics were applied including means, medians, modes, standard deviations, ranges, frequencies and percentages were calculated to analyze the data of each bank and then overall industry.

Findings

The data covers Pakistan's private commercial banks. The data coverage is wide because each question was answered by fifty different people all working in five different corporate division of private commercial banks. This is a very interesting starting point for analyzing the data, but also somewhat restricting, because the variety makes generalization difficult.

After the sample data has been obtained, the data used must satisfy the assumptions required of multivariate statistical techniques, including: large sample size, linearity, absence of outliers, continuous data, and low percentage of missing data (Comrey, 1985; Pett et al., 2003).

Exploratory factor analysis explores and summarizes underlying co-relational structure for a data set. For this research exploratory factor analysis served a subsidiary role, merely helping in preparation for the hypothesis testing that is the central purpose of the study.

Table 1:

Extraction of exploratory factor analysis

	Extraction
Learning opportunities are incorporated into operations and programs	.846
The importance of learning is focused and emphasized in the organization's culture	.831
Organization maintains just in time learning with a structure that involves high technology learning systems, training and actual work into an uninterrupted process	.817
Learning facilities are supported by multimedia	.811
Organization formulates strategies to share learning throughout the hierarchy	.807
Information is shared with customers in order to recognize the present and future opportunities	.749
Employees are motivated and expected to administer their own learning and development	.741
Vision of a learning organization is supported by high ranking officials	.740
Comprehensive systems approach is the means to employees thought process and actions	.738
Employees have ready access to the information technology	.735
Electronic performance support systems assist the employees in completing their task more efficiently	.734
Computer based information systems assist in effective and efficient organizational learning	.731
Test marketing is conducted before launching a product or service	.731
Employees examine trends by benchmarking with best practices through researches, conferences etc	.721
We take part in mutual learning events with suppliers, community, groups, certified associations and academic institutions	.717
Employees are educated to apply the process of creative thinking and experimentation	.710
People try not to damage and distort information and avoid blocking communication	.697
Failure and success both provide learning	.685
Training, mentoring and facilitating learning is part of manager's duties	.676
Employees are directed and advised on grasping the knowledge of learning	.676
Learning process is utilized by employees individually and also in teams	.675
The hierarchy among management level is limited so that communication and learning across all levels is maximized	.670
Authority is decentralized and delegated	.651
Organization aims at developing employees who are able to learn and perform	.647
Systems and structures are required to store as well as to make use of important information	.594

All the extractions are more than 0.5, which assures the sampling adequacy.

Descriptive statistics were used to analyze each bank and then over all commercial banking industry.

Hypothesis 1: Commercial Banks in Pakistan are learning organizations

Table 2:
Descriptive Statistics of Bank 1

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	10	48.00	96.00	71.7000	13.81666	-.014	.687
Valid N (listwise)	10						

Table 3:
Descriptive Statistics of Bank 2

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	10	54.00	82.00	61.2000	9.48449	1.714	.687
Valid N (listwise)	10						

Table 4:
Descriptive Statistics of Bank 3

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	10	42.00	107.00	64.0000	17.13995	1.836	.687
Valid N (listwise)	10						

Table 5:
Descriptive Statistics of Bank 4

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	10	36.00	67.00	55.7000	10.75019	-.929	.687
Valid N (listwise)	10						

Table 6:*Descriptive Statistics of Bank 5*

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	10	51.00	86.00	66.6000	11.17736	.006	.687
Valid N (listwise)	10						

Table 7:*Descriptive Statistics of Overall Industry*

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
TOTAL	50	36.00	107.00	63.8400	13.37277	.776	.337
Valid N (listwise)	50						

Discussion

According to Don Clark's model,

- Organizations having scores between 81-100 are learning organizations
- Organizations having scores between 61-80 have solid foundation of being a learning organization
- Organizations having scores between 40-60 have important building blocks to become a learning organization
- Organizations having scores below 40 needs drastic changes to become learning organization

Don Clark's model asses each bank on five different components, namely:

- 1) Learning Dynamics: Individual, group and organization
- 2) Organization transformation: Vision, culture, strategy and structure
- 3) People Empowerment: Employee, manager, customer and community
- 4) Knowledge Management: Acquisition, creation, storage, retrieval, transfer and use
- 5) Technology application: Information systems, technology based learning and electronic performance support system

The aim of the study was to find whether private commercial banks operating in Pakistan are learning organization or they are still traditional organizations.

Most of the people in the world learn through their jobs. Private commercial banks continuously motivate their employees to learn and develop the required skills and knowledge but the employees feel that their organizations do not help in training them to understand the way to learning. Over all the private commercial banking industry provides an environment which promotes the skill of learning in individuals. The industry understands the need of individual learning and appreciates individuals who are willing to learn from their daily experiences.

Organizational culture plays a key role in transforming the organization into a learning organization. Organizational transformation reveals the organization's culture in embedding the learning climate. The private commercial banks learn from past mistakes but fail to incorporate them in their future strategies. Over all the private commercial banking industry's vision is based on learning. The private commercial banking industry understands the importance of learning and does learn from its past mistakes and failures but fails to incorporate the past leanings in its present activities completely.

People Empowerment is necessary at all levels in order to develop into a learning organization. Employees, managers, customers and community all should be empowered so that they can establish themselves as true stakeholders. Empowerment at the level of employees and managers is required to decentralize the organization which is one of the key elements required for a learning organization. Customers and community empowerment is required so that the organization can receive continuous feedback about its products and services by developing a strong communication network between the organization and its customers and community. The private commercial banking industry in Pakistan does not hold joint collaborative events and

exercises with its customers who are mainly its lenders and depositors but internally it expects its managers to promote the culture of learning and train the personnel working under him. Over all the private commercial banking industry tries to be connected to its customers and community by disseminating financial and non financial information. Also it tries to build an internal culture of mentorship but fails to completely decentralize the organization.

Knowledge Management is the past experiences and strategies from which an organization has learned and tries to store and incorporate in its present activities, processes and also individuals. The private commercial banking industry in Pakistan is weak in knowledge management. The industry tries to store data, results and findings but is unable to make use of the stored data constructively. Learning through pilot testing is very rare. The private commercial banks in the industry shares data internally but intradepartmental transfer of information is also very rare.

Technology management has become an integral part of an organization. Technology is required in order to stay connected, transfer the relevant information on time and also to be more competitive. The private commercial banks in Pakistan are equipped with all the essential material technology. The individuals in the industry have access to the technology but industry lacks in support provide to the individuals through special technological expert groups within the organization. There is also a gap between information provided by the technology and transferring the information into constructive use. Timely access of information also needs to be worked on by the industry.

The private commercial banks have started spending aggressively on computer software and automation as according to the banks the only way to compete in Pakistan is to reduce customer service time. Automation and technology management helps the banks in being more aggressive and competitive.

All the private commercial banks in Pakistan's banking industry have the required elements to convert into a learning organization but needs necessary motivation to meet the transition. The strongest area in the banking industry is Organization transformation implicating that the banks have clear vision and understanding of learning organizations. They understand the need to be a learning organization and are developing the necessary culture required to be one. The weakest area is of knowledge management which lowers the industry average. The industry sees past failures as learning but is unable to transfer the learning acquired into future gain or strategy.

The limitation of the study is that only private commercial banks operational in the banking industry were included and also the study was limited to ten individuals in a bank of corporate banking department. The research can be further validated by conducting the same research in all the departments of the bank in order to ensure the assessment provided by this research. Also, the research can be expanded by including all types of banks included in Pakistan.

This research can be compared with research conducted on retail banking division in UK by Lisa Haris (2002) "The Learning Organization – myth or reality". The research concluded that there is a gap of information sharing and dissemination between individuals in the banks. The banking industry in UK is unable to embed the lessons learnt from its past failures as well as successes. The technology sought will not be fully utilized by the banking industry until the transformation to learning organization takes place.

Conclusion

The hypothesis which stated that private commercial banks operating in Pakistan are learning organizations is not true. As according to Don Clark's model, the assessment requires the banks to score between 81-100. Most of the banks score between 60-80 while one bank scored between 40-60. The overall private commercial banking

industry score is 63. Thus we conclude that private commercial banking industry has elements with strong foundation of being learning organization but still some elements needs to be refined.

The highest learning organization profile score was for Bank A which is a subsidiary of foreign bank operating in Pakistan while the least score was for Bank D which is one of the oldest domestic bank in Pakistan.

The profile assessed each private commercial bank at five different levels among which the highest score was for organization transformation including vision, culture, strategy and structure. The least score was for knowledge management including management, acquisition, creation, storage, retrieval, transfer and use of data.

All the banks have realized the importance of being learning organization as in present times one person cannot lead the organization into success but needs employees at all levels to contribute in driving the organization towards its end goals.

Training is provided by all the private commercial banks to their employees on different but relevant and related subjects but the employees are unable to extract the lessons from learning and implement it in their daily work.

The vision is supported by top management but communication between hierarchy was found to be missing. The learning climate is promoted but failure which is an integral part of learning is not tolerated by any bank.

The private commercial banks in Pakistan are partially decentralized and authority is delegated to some employees. The financial information is shared by all the banks as required by the central bank while non-financial information is shared through annual reports and websites.

The private commercial banks monitor trends through competitor's annual reports and does not engage into analyzing the external environment in detail. This can be because the banking industry is highly transparent and regulated industry. The private commercial banking industry wants the employees to engage in creative thinking as they realize the importance of creating blue ocean but at present does not have the required human resource and mind sets. Very few banks develop innovative products, while mostly banks are into line extensions. Also strategies are not changed till the previous strategy fails, which makes the banks reactive rather than proactive.

All the private commercial banks are investing heavily in automation as they feel that it is the only way to compete in the Pakistan's banking industry. Employees have access to the technology and training is also provided by the bank on the same. The need is to use the technology to gain future benefits.

Thus, the private commercial banking industry in Pakistan still would have to be transformed into learning organization if they want to sustain their competitive position. The private commercial banks operating have all the elements required to be a learning organization, the need is only to utilize the elements available.

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APPENDIX 1**DON CLARK'S Learning Organization Profile**

Read carefully the options stated below and then rate your company according to the below mentioned criteria:

- 4 = applies fully
- 3 = applies to a great extent
- 2 = applies to a moderate extent
- 1 = applies to little or no extent

Be honest with your answers as the goal is to identify where your organization is presently at so that you can make improvements.

LEARNING DYNAMICS: INDIVIDUAL, GROUP OR TEAM, AND ORGANIZATION

1. _____ We are encouraged and expected to manage our own learning and development.
2. _____ People avoid distorting information and blocking communication channels, using such skills as active listening and effective feedback.
3. _____ Individuals are trained and coached in learning how to learn.
4. _____ Teams and individuals use the action learning process. (that is, they learn from careful reflection on problem situations, and then apply their new knowledge to future actions.)
5. _____ People are able to think and act with a comprehensive, systems approach.

ORGANIZATION TRANSFORMATION: VISION, CULTURE, STRATEGY, AND STRUCTURE

6. _____ Top-level managers support the vision of a learning organization.
7. _____ There is a climate that supports and recognizes the importance of learning.
8. _____ We learn from failures as well as successes.

9. _____ Learning opportunities are incorporated into operations and programs.
10. _____ The organization is streamlined—with few management levels—to maximize communication and learning across all levels.

PEOPLE EMPOWERMENT: EMPLOYEE, MANAGER, CUSTOMER, AND COMMUNITY

11. _____ We strive to develop an empowered workforce able to learn and perform.
12. _____ Authority is decentralized and delegated.
13. _____ Managers take on the roles of coaching, mentoring, and facilitating learning.
14. _____ We actively share information with our customers to obtain their ideas to learn and improve services and products.
15. _____ We participate in joint learning events with suppliers, community groups, professional associations, and academic institutions.

KNOWLEDGE MANAGEMENT: ACQUISITION, CREATION, STORAGE AND RETRIEVAL, AND TRANSFER AND USE

16. _____ People monitor trends outside our organization by looking at what others do—for example, by benchmarking best practices, attending conferences, and examining published research.
17. _____ People are trained in the skills of creative thinking and experimentation.
18. _____ We often create demonstration projects to test new ways of developing a product or delivering a service.
19. _____ Systems and structures exist to ensure that important knowledge is coded, stored, and made available to those who need and can use it.
20. _____ We continue to develop new strategies and mechanisms for sharing learning throughout the organization.

TECHNOLOGY APPLICATION: INFORMATION SYSTEMS, TECHNOLOGY-BASED LEARNING, AND EPSS (ELECTRONIC PERFORMANCE SUPPORT SYSTEMS)

21. _____ Effective and efficient computer-based information systems help our organizational learning.
 22. _____ People have ready access to the information superhighway—for example, through local area networks, the Internet, ASTD Online, and so on.
 23. _____ Learning facilities such as training and conference rooms incorporate electronic multimedia support.
 24. _____ We support just-in-time learning with a system that integrates high-technology learning systems, coaching, and actual work into a seamless process.
 25. _____ Electronic Performance Support Systems (EPSS) enable us to learn and do our work better.
- _____ *Total (Maximum Score 100)*

Scoring

81 - 100: Congratulations! You are well on your way to becoming a learning organization!

61 - 80: Keep on moving! Your organization has a solid learning foundation.

40 - 60: A good beginning. Your organization has gathered some important building blocks to become a learning organization.

Below 40: Watch out! Time to make drastic changes if you want to survive in a rapidly changing world.

IMPACT OF EFFICIENT MANAGEMENT OF WORKING CAPITAL ON PROFITABILITY: CHEMICAL COMPANIES LISTED AT THE KSE

Naseem Akhtar¹

Abstract

A well thought constituted policy of working capital followed by its efficient management in every business plays a key role effecting firm's profitability and liquidity. Though many papers written on this subject have established some specific relationship between working capital management (WCM) and corporate profitability by studying varied industrial set-ups across the board, but this paper examines particularly the chemical sector firms listed at Karachi Stock Exchange in Pakistan. Since most of purchases and sales in chemical sector are carried out on trade and consumer credit respectively, it is thought to investigate whether they show the similar relationship or not, and if so, what are its possible reasons.

This study is based on 27 chemical firms covering a period 2005-2011, and assesses the relationship exist between profitability, cash conversion cycle (CCC) and allied components. It establishes existence of an insignificant positive relationship between them. Though it is in contrast to what is already established by some other papers reviewed, however, by efficiently handling CCC and keeping optimum level of working capital components, managers can enhance profitability. This also shows that operating activities of a particular sector, if studied exclusively, may have some different impact on the relationship of these variables.

Keywords: Working capital management, Corporate profitability, Cash Conversion Cycle, Chemical Sectors firms in Pakistan.

JEL Classification: G 120

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Introduction

Basic Concept/Theory

The two major concepts of working capital (WC) are gross and net WC. While gross WC means total current assets, net WC means current assets (CA) minus current liabilities (CL). The financial analysts generally focus on gross WC and use the term WC for it.

WC is necessary to conduct business, and greater the WC, the lower the firm's operating risk. However, holding excessive WC is costly – it reduces firm's return on invested capital (ROIC), free cash, and its value.

WC Policy

The two basic principles of finance emerged from WC policies (Van Horne & Machowicz, 13th ed.(2009) – Fundamentals of Financial Management):

- a. Inverse relationship between profitability and liquidity.
- b. Risk and return moves together (i.e., higher risk, higher profitability, and vice versa)

Presumption is that profitability results-in maintaining a low proportion of CA and high level of CL as compared to total liabilities. Risk means a possible jeopardy to firm's operation for not maintaining sufficient CA to:

- a. Meet its cash obligations as they occur; and
- b. Support proper level of sales (e.g., running out of inventory).

WC policy of a firm may be aggressive, moderate, or conservative. If a firm's CA to total assets ratio is kept low, or its financing is based on high level CL, then it may be considered to be following an aggressive WC policy, and vice versa situation leads to conclude that the firm has chosen a conservative WC policy (Afza & Nazir, 2009). In between these two extreme positions could be termed as moderate WC policy.

WC Management

Working Capital Management (WCM) means management of CA, which are required to support the normal operational activities of a business, and that could be converted into cash as and when need arises in the shortest possible time, generally within a year. WCM also involves the decision regarding composition and level of investment in CA as well as the financing of the same.

WCM requires proper planning and controlling of CA and CL in a way that on the one hand it minimizes the risk of not meeting the short-term obligations becoming due and at the same time avoid blocking unnecessary large amount in these assets (Eljelly, 2004).

WC Policy vs WCM

While WC Policy of the firm generally involves two fundamental decisions: (i) optimal level of each category of CA to be maintained, and (ii) how these will be financed – an appropriate combination of short and long-term financing; whereas WCM means management/administration of CA and financing needed to support CA (i.e., CL and external funding). So WCM involves both setting WC policy and exercising that policy in day-to-day operation.

WCM Significance

Lamberson (1995) indicated that WCM has become a significant issue in many organizations as the financial managers face difficulties in identifying the driving component and thus, deciding the optimum level of WC. Therefore, if they can fully understand the role of WC determinants, it would help the companies in improving their overall performance by reducing the risk involved.

A balance between risk and efficiency makes an optimal level of WC. The outcome of Deloof (2003) paper says that maintaining WC at optimal level could potentially maximize the profitability. That shows the way WC is managed could have a significant impact on a firm's profitability.

WCM significance could also be judged from the observation that on an average a Pakistani chemical producing / distribution firm's current assets are almost fifty percent of its total assets. Almost similar observation (i.e., on average over 40%) is made in other papers as well, covering different sector companies in many other countries.

Decision Involved

Among the key areas of decisions to be taken in the financial management, one important managerial decision (carried out on day-to-day basis) is related to the level of CA, which has an influence on the firm's sales volume, profitability, and risk. It is established through many surveys that a large proportion of financial managers' time on daily basis is devoted towards decisions involved on WCM.

In order to ensure maintaining a risk and efficiency balance, an optimal level of WC components (i.e., cash, accounts receivable, inventory, and accounts payable) are to be maintained. Since the financial managers spend most of their time and efforts in bringing the level of CA and CL to an optimal level (Lamberson, 1995), it is essential to have regular monitoring of WC components.

Ultimately, optimal level of current asset will be determined by management's attitude to trade-off between profitability and risk. Thus, firms by maintaining an optimal level of WC could maximize its value. Following a generous trade credit policy and maintaining a large level of inventory – that reduces out-of-stock risk - are likely to enhance the firm's sales. Likewise, delaying the due payments to firm's suppliers creates inexpensive financing source for the firm in the form of accounts payable being another component of WC. However, if a cash discount is offered by the firm for an early payment, then the delay in settlement of suppliers' invoices beyond the given discount period can be a costly source of financing for the firm.

Thus, the financial managers' prime focus is to effectively manage each of the WC components in order to keep an optimal balance among these components (Filbeck and Kruger, 2005).

How to Measure WCM

It is established that the CCC is the most commonly used measure of WCM. The CCC is basically equal to: (i) number of days sales outstanding plus days of sales held in inventory minus days of payables outstanding (Keown et al, 2003); or say (ii) the time period involved from actual cash outflow for purchases until the actual cash received resulting from the sale of goods or services (Van Horne). Accordingly, if this time lag is large, significant amount of investment would remain blocked in WC (Deloof, 2003). If CCC period is long it could leads to increase in sales thereby increasing corporate profitability on the one hand, but at the same time it could also negatively affect the profitability in case the costs of WC investment is high as compared to benefits of holding more inventories and also remain liberal in trade credit to customers (Deloof, 2003).

Concluding Remarks

Lastly, since WCM may affect the profitability of a firm, it plays an important role to have an impact on success or failure of a business firm. This paper in-fact has assessed the relationship between WCM and profitability of 27 chemical sector companies listed at Karachi Stock Exchange (KSE), Pakistan, with an objective to check and verify whether or not similar statistically significant relationship exist between profitability, the CCC and its components for chemical sectors companies listed firm at KSE.

For the convenience of the readers, the remaining part of this paper has the following sequence: The following section i.e., section 2, is a literature review which covers a brief outcome of some already conducted research papers related to this paper topic. The methodology adopted is presented in section 3, whereas section 4 reflects the analysis of data and discusses the statistical results. The last section 5 brings in the conclusion of this research paper.

Literature Review:

Though many papers have been written on the subject topic in various countries, including Pakistan, 13 research papers covering diversified areas of manufacturing & service units were reviewed, in

addition to the review of text of a couple of financial management books. A brief outcome of 10 papers covering samples of different sector companies across the world are presented below.

Huynh Phuong Dong & Jyh-tay Su (2010) studied **Vietnam** stock market listed firms (130 in number) for the period 2006-2008, having 390 observations in total, and investigated the relationship existing between profitability and the CCC and its various components. The result indicated a strong negative relationship between them. So they are of the view that profitability can be increased by minimizing the levels of inventory and account receivables, and delaying payments of their bills.

Amarjit Gill, Nahum Biger, & Neil Mathur (2010) paper studied (88) American manufacturing companies listed at New York Stock Exchange, covering the period from 2005 to 2007 to determine relationship of WCM and firm's profitability. By measuring through gross operating profit, their study confirms existence of a significant relationship between profitability and CCC, and that a negative relationship exists between accounts receivables and profitability of the firm. This paper also concludes that profitability can be increased if WCM is carried out in an efficient manner.

Kesseven Padachi (October' 2006) carried out his analysis of 58 small manufacturing firms (SMEs) in **Mauritius** to investigate relationship between WCM and corporate profitability for the period 1998-2003, and the regression analysis results showed a significant relationship between these two components, and established firms carrying high level of inventory and accounts receivables may have lower profitability. This research exclusively indicated that by maintaining reasonable level of various components of working capital, the paper and printing industry in Mauritius showed a positive impact on its profitability. Thus, Kesseven concludes that if WC policy of the firm is properly designed and subsequently efficiently put into practice, it is likely to impact the firm's value positively.

Raheman and Nasr (2007) studied 94 **Pakistani** companies listed at KSE for a period from 1999 to 2004 and showed the existence of a negative relationship between variables of WC components on the profitability of the firm, and that CCC has inverse relationship i.e.,

increase in CCC leads to decrease in profitability. Thus, shareholders value may be enhanced by bringing down the CCC to a minimum possible level. Moreover, a positive relationship exists between profitability and the firm size, measured by natural logarithm of sales.

Lazaridis and Tryfonidis (2006) concluded the existence of significant relationship between profitability and CCC and its components, which is based on studying 131 firms listed on the **Athens** Stock Exchange covering the period 2001- 2004. After having analyzed the data by using correlation and regression models, they were also of the view that firms can enhance profit by efficiently handling the CCC and maintaining optimal level of its components.

Eljelly (2004) empirically examined companies of joint stock companies in **Saudi Arabia** to establish the relationship between profitability and liquidity. Eljelly investigated this relationship by calculating the current ratio and CCC (i.e., the cash gap), and found that the current ratio affecting the profitability, is more important than the cash gap which was to be used as a measure of liquidity; and that the firm size variable has significant effect on profitability.

Deloof (2003) tested the similar relationship (i.e., between WCM and corporate profitability) by examining over 1,000 large **Belgian** firms covering a period 1991-1996, and found the existence of a significant negative relationship between these two components. The outcome of this study also suggested that corporate profitability can be enhanced by reducing CCC.

Shin and Soenen (1998) also studied the relationship between WCM and increase in shareholders' value, for which they used CCC being a standard measure for the WCM, and termed it as net-trade cycle (NTC). NTC is in-fact just like CCC, the only difference is that 3 components of CCC are reflected as sales percentage. Having studied a sample of 58,985 firms for the period 1975-1994, they found strong negative relationship between firm's NTC length and its profitability. They also suggested that by reducing a firm's NTC, shareholders value could be created.

2.9 Afza and Nazir (2009) studied firms (204 in number) listed at KSE, **Pakistan** covering the period from 1998 to 2005 to assess the relationship between WCM and a firm's profitability. This study showed a significant difference among WC requirements and financing policies among different industries. They also found a negative relationship between firms' profitability and degree of aggressiveness of WC requirement and financing policies. They are of the view that by adopting a conservative policy of WC requirements and its financing policies, the firms' value can be created.

2.10 Mathuva (2009), by studying 30 firms listed on the Nairobi Stock Exchange, Kenya covering the period 1991- 2008, examined as to how WCM could influence the firms' profitability. His findings were the existence of: (i) negative relationship between average collection period and profitability; (ii) positive relationship between inventory turnover and profitability; and (iii) a positive relationship between accounts payable period and profitability.

In summary, the review of the above mentioned literature shows how the WCM could impact the firms' profitability. It also gives the outcome of already conducted researches in different countries, covering different sectors, and entailing different environments.

Methodology

Measurement

Like earlier studies that used and measured the variables related to WCM and profitability, the following variables and their measures have been used in this paper too:

- Days Sales Outstanding (DSO) = (Accounts Receivables / Sales) x 365
- Days Payables Outstanding (DPO) = (Accounts Payables / Cost of Goods Sold) x 365
- Days Sales of Inventory (DSI) = (Inventory / Cost of Goods Sold) x 365
- Cash Conversion Cycle (CCC) = DSI + DSO – DPO
- Firm Size (FS) = Natural Logarithm of Sales (LOS)
- Financial Debt Ratio (FDR) = (Short-Term Borrowings + Long-Term Debts) / Total Assets

- Fixed Financial Asset Ratio (FFAR) = Fixed Financial Assets / Total Assets
- Gross Operating Profitability (GOP) = (Sales – Cost of Goods Sold) / (Total Assets – Financial Assets)
- Current Assets to Total Assets (CATA) = Current Assets / Total Assets

For a composite analysis of WCM on the profitability of firms, like many other studies, the control variables (i.e., firm size, financial debt ratio, and fixed financial assets ratio) have been used in collaboration with the key variables components of WC. Likewise, the gross profit margin being the dependent variable has been used in order to establish exclusively the operating “success” or “failure” and to link this variable with other operating variables i.e., CCC components. Use of other variables e.g., net profit before or after tax or EBITDA - earnings before interest, tax, depreciation, amortization – would have influenced the impact of finance and tax on the operation of the firm, therefore have been ignored. Moreover, any financial investments/assets were also subtracted from total assets in order to exclude its contribution (if any) on the overall profitability of the firm.

Data Collection

For this research, out of total 38 chemical sector companies listed at KSE, a database was built from 27 companies covering overall period of year 2005 to 2011. Due to lack of data availability, the other 11 companies are not included, whereas of the selected companies, data of few years of some of the companies could not be collected and/or ignored as data seemed to be abnormal, so in total 156 observations could only be used in this study. The data was collected from State Bank of Pakistan (SBP) report on “Financial Statement Analysis of Companies (Non-Financial) listed at Karachi Stock Exchange (2005-2010)”; and relevant sector companies’ annual reports for the period covered to the extent available for this study.

Data Analysis

Statistics of Variables

Below Matrix 1 reflects variables statistics of the collected data for the period 2005-2011. All variables calculations are based on the year-end balance sheet figures, whereas measurement of profitability is based on year-end income statement.

Table 1:
Statistics of All Variables

(No. of observations = 156)				
Variables	Lowest	Highest	Average	Std. Deviation
DSO	0.00	256.84	49.16	52.28
DPO	10.64	599.31	93.43	84.22
DSI	0.86	420.14	78.82	77.30
CCC	-	397.25	34.55	110.91
FS	507.28	8.05	6.28	0.93
FDR	3.76	2.87	0.29	0.32
FFAR	0.00	1.02	0.04	0.14
GOP	0.00	3.85	0.25	0.45
CATA	-0.25	0.95	0.51	0.25

As evident from the above matrix, the average credit period extended by companies is in the range of almost 50 days; payment to creditors on average in 94 days; on an average inventory took 79 days to be disposed off; and the average Cash Conversion Cycle (CCC) is for 35 days. The standard deviation of independent variables is also quite significant.

Being control variables, the firm size stood on average at Rs 6.28 million with a mean gross profit margin of 25%. An average Financial debt Ratio (FDR) used as proxy for leverage came to 29%, and Fixed Financial Asset Ratio (FFAR) is arrived at 4%.

It is also observed that CATA (current assets to total assets) ratio varies from minimum 5% to maximum 95%, with an average of almost 50% and having standard deviation of almost 25%.

Correlation Analysis

To assess the relationship between WCM and GOP, Pearson's correlation analysis has been applied. Matrix 2 below gives the outcome of this analysis.

It is generally observed from various studies that the negative correlation between DSO and GOP shows negative impact on the profitability with the increase in average collection period. Likewise, negative correlation between CCC with GOP also indicates that a firm

can increase its profitability by delaying payments to suppliers and expediting collections of outstanding receivables from customers, as well as keeping minimum inventory.

In this paper, it is observed that GOP is positively correlated with the DSO with coefficient being 0.225. Correlation result between DSI and GOP as well as CCC and GOP also indicate the same type of result with positive co-efficient of 0.125 and 0.276 respectively. On the other hand, correlation result between DPO and GOP is a negative with coefficient of -0.109, whereas correlation between firm size and GOP is positive.

To summarize, the correlation analysis showing a positive co-efficient between DSO, DSI, and CCC with profitability are inconsistent with the outcome of Dong & Su (2010), Raheman & Nasr (2007), and Deloof (2003). However, while Raheman & Nasr (2007) and Deloof (2003) in their studies also showed a negative relationship between DPO and profitability, in line with this paper, but contrary to this, Dong & Su (2010), Gill, Briger, & Mathur (2010), and Lazardis & Tryfondis (2006) papers show positive correlation between DPO and profitability.

Table 2
Correlation Matrix

	DSO	DPO	DSI	CCC	FS	FDR	FFAR	GOP
DSO	1.000							
DPO	0.021	1.000						
DSI	0.235**	0.401**	1.000					
CCC	0.619**	-0.470**	0.504**	1.000				
FS	-0.413**	-0.305**	-0.411**	-0.250**	1.000			
FDR	-0.042	0.142	-0.054	-0.165*	-0.009	1.000		
FFAR	-0.177*	-0.053	-0.235**	-0.207**	0.220**	0.447**	1.000	
GOP	0.225**	-0.109	0.125	0.276**	0.097	-0.139	0.041	1.000

** Significant correlation level = 0.01 (2-tailed)

* Significant correlation level = 0.05 (2-tailed)

Multiple Regression Analysis

To further investigate the relationship of WCM on firms' profitability, regression analysis and fixed effects model are used. In this section, empirical findings are presented by using the following four (4) modules, wherein profitability being the dependent variable against respective four independent variables along with some controlled variables, have been tested.

Module 1

In this module, gross operating profitability (GOP) is used as dependent variable, whereas number of days sales outstanding (DSO) is used as an independent variable along with other control variables i.e., financial debt ratio (FDR), firm size (FS) and fixed financial assets to total assets (FFAR). In this module, the following regression equation is used:

$$\text{GOP} = \mu_0 + \mu_1(\text{DSO}_{it}) + \mu_2(\text{FDR}_{it}) + \mu_3(\text{FS}_{it}) + \mu_4(\text{FFAR}_{it}) + \varepsilon$$

$$= -0.518 + 0.002\text{DSO} - 0.223 \text{FDR} + 0.093\text{FS} + 0.48\text{FFAR} + \varepsilon$$

Table 3
Multiple Regression Analysis Result (Module 1)

	Un-standardized Multipliers		Standardized Multipliers	t-value	Sig.	Co linearity Statistics	
	μ	Std. Error	μ			Tolerance	V.I.F.
(Non-varying)	-0.518	0.287		-1.806	0.073		
DSO	0.002	0.001	0.290	3.332	0.001	0.759	1.318
FS	0.093	0.041	0.191	2.242	0.026	0.793	1.262
FDR	-0.223	0.123	-0.158	-1.816	0.071	0.752	1.329
FFAR	0.480	0.292	0.145	1.646	0.102	0.743	1.347
CATA	0.213	0.150	0.117	1.422	0.157	0.850	1.177

a. Dependent Variable: Gross Operating Profit [i.e., gross profit / (total assets – financial assets)]

R-Sq. = 13.5%; R-Sq. (adj.) = 10.6%; Standard Error of Estimates (S.E.E.) = 0.4267; F = 4.711 with Sig. 0.001

Since the result of module 1 shows positive coefficient of DSO with only 0.002, it seems the firm's profitability is insignificantly affected. That means any change in average collection period insignificantly affects the profitability of chemical sector firms in Pakistan.

FDR being used as a proxy for leverage, the result reflects significantly negative relationship with the dependent variable, and that means firm's higher leverage will adversely affect its profitability.

The above matrix results also show a positive relationship between FS (coefficient 0.093) and FFAR (coefficient 0.480) with profitability, and both are only marginally significant. It leads to believe that the firm's profitability could be affected by the firm size i.e., the bigger is the firm size, the more profitable it is.

The co-efficient of multiple determinations, measured through adjusted R^2 , is the percentage of the variance in the dependent variable with reference to the independent variables. The result of module 1 shows 10.6% adjusted R^2 . F statistics test significant of R. SPSS run results confirm fitness of module with F-statistics 4.711. So it may be concluded that at least one of the variables among DSO, FDR, FS, and FFAR is related to GOP.

Module 2

In order to assess how different results are emerged by the use of other proxies for WCM, the average DSO variable is replaced by the average DPO in this module, and accordingly, following regression equation is used:

$$\begin{aligned} \text{GOP} &= \mu_0 + \mu_1(\text{DPO}_{it}) + \mu_2(\text{FDR}_{it}) + \mu_3(\text{FS}_{it}) + \mu_4(\text{FFAR}_{it}) + \varepsilon \\ &= -0.059 + 0.000\text{DPO} - 0.191\text{FDR} + 0.032\text{FS} + 0.405\text{FFAR} + \varepsilon \end{aligned}$$

Table 4

Multiple Regression Analysis Result (Module 2)

	Un-standardized Multipliers		Standardized Multipliers	t-value	Sig.	Collinearity Statistics	
	μ	Std. Error	μ			Tolerance	V.I.F.
(Non-varying)	-0.059	0.295		-0.202	0.841		
DPO	0.000	0.000	-0.051	-0.610	0.543	0.881	1.135
FS	0.032	0.041	0.065	0.773	0.441	0.857	1.166
FDR	-0.191	0.128	-0.135	-1.487	0.139	0.739	1.353
FFAR	0.405	0.302	0.122	1.344	0.181	0.743	1.347
CATA	0.345	0.149	0.189	2.312	0.022	0.916	1.092

a. Dependent Variable: Gross Operating Profit [i.e., gross profit / (total assets – financial assets)]

R-Sq. = 7.4%; R-Sq. (adj.) = 4.3%; Standard Error of Estimates (S.E.E.) = 0.4416; F = 2.400 with Sig.0.040

The coefficient presented in Matrix 4 shows a positive relationship between DPO and profitability of firm thereby reflecting significant effects on profitability due to increase or reduction in average payment period i.e., longer to pay bill, more profitable the firm, and vice versa.

The (adjusted) R-Sq. is 4.3% and the model is fit with F-statistics of 2.400 and p-value is 0.040.

Module 3:

Replacing average DPO by DSI as an independent variable, whereas all other variables remained same as in modules 1&2, the third module is run with the following regression equation:

$$\begin{aligned} \text{GOP} &= \mu_0 + \mu_1(\text{DSI}_{it}) + \mu_2(\text{FDR}_{it}) + \mu_3(\text{FS}_{it}) + \mu_4(\text{FFAR}_{it}) + \varepsilon \\ &= -0.320 + 0.001\text{DSI} - 0.222\text{FDR} + 0.066\text{FS} + 0.484\text{FFAR} + \varepsilon \end{aligned}$$

Table 5:

Multiple Regression Analysis Result (Module 3)

	Un-standardized Multipliers		Standardized Multipliers	t-value	Sig.	Co linearity Statistics	
	μ	Std. Error	μ			Tolerance	V.I.F.
(Non-varying)	-0.320	0.292		-1.096	0.272		
DSI	0.001	0.001	0.155	1.671	0.097	0.699	1.431
FS	0.066	0.042	0.136	1.563	0.120	0.797	1.254
FDR	-0.222	0.127	-0.158	-1.754	0.081	0.748	1.338
FFAR	0.484	0.301	0.146	1.606	0.110	0.733	1.365
CATA	0.252	0.159	0.138	1.588	0.114	0.794	1.259

a. Dependent Variable: Gross Operating Profit [i.e., gross profit / (total assets – financial assets)]
R-Sq. = 8.8%; R-Sq. (adj.) = 5.8%; Standard Error of Estimates (S.E.E.) = 0.4381; F = 2.921 with Sig. 0.015

The result indicates a positive relationship between DSI and profitability. The co-efficient being 0.001 of this relationship reflects that the larger inventory turnover will not significantly affect the profitability, which seems to be contrary to some other studies, listed in the reference.

Module 4:

In this last module, CCC is utilized as an independent variable, instead of DSO, DPO, or DSI. As far as other variables i.e., FDR, FS, & FFAR, are concerned, they are kept the same as used in earlier three modules. Thus, following regression equation is used:

$$\begin{aligned} \text{GOP} &= \mu_0 + \mu_1(\text{CCC}_{it}) + \mu_2(\text{FDR}_{it}) + \mu_3(\text{FS}_{it}) + \mu_4(\text{FFAR}_{it}) + \varepsilon \\ &= 0.250 + 0.001\text{CCC} - 0.191\text{FDR} + 0.068\text{FS} + 0.481\text{FFAR} + \varepsilon \end{aligned}$$

Table 6
Multiple Regression Analysis Result (Module 4)

	Un-standardized Multipliers		Standardized Multipliers	t-value	Sig.	Collinearity Statistics	
	μ	Std. Error	μ			Tolerance	V.I.F.
(Non-varying)	-0.250	0.265		-0.945	0.346		
CCC	0.001	0.000	0.285	3.255	0.001	0.747	1.338
FS	0.068	0.039	0.140	1.734	0.085	0.887	1.128
FDR	0.191	0.123	-0.135	-1.550	0.123	0.754	1.327
FFAR	0.481	0.292	0.145	1.648	0.101	0.742	1.347
CATA	0.137	0.158	0.075	0.866	0.388	0.762	1.312

a. Dependent Variable: Gross Operating Profit [i.e., gross profit / (total assets – financial assets)]
R-Sq. = 13.2%; R-Sq. (adj.) = 10.3%; Standard Error of Estimate (S.E.E.) = 0.4274; F = 4.601 with Sig.0.001

The CCC is applied as proxy to assess efficiency of WCM. The result indicates positive relationship between CCC and profitability. The coefficient is 0.001 with p-value 0.001, which leads to conclude that any change in the CCC insignificantly affects profitability, which seems to be contrary to some other referenced studies.

The adjusted R^2 is 10.3%, whereas the co-efficient of F-statistic is 4.601 with in-significance at $\alpha = 0.001$.

The multi-collinearity test was also carried out for all the above four regression modules. Moreover, variance inflation factor (V.I.F.) – or the tolerance of the explanatory variables - has also been applied to determine as to which predictor has much stronger linear relationship with other predictors. The predictor having the biggest VIF is often taken as an indicator of serving multi-collinearity. It may be noted from the above table that all predictors had a VIF below 1.4 thereby confirming absence of multi-collinearity among the predictors in the regression models, whereas tolerance co-efficient ranged between 0.7 and 1.0.

Conclusions

The above data result analysis done to assess the relationship between WCM and GOP of chemical sector industries in Pakistan indicates that the relationship of each of these variables viz sale in days receivables, level of inventories, and cash conversion cycle, with the profitability is positive, which is in contrary to the findings of some other research conducted in the past, which are listed under

‘References/Bibliography’, and are based on mixed samples of companies belonging to different sectors across the board.

Previous research predicts negative relationship between accounts receivable (DSO) and profitability (Lazaridis & Tryfonidis, 2006; Raheman & Nasr, 2007; Deloof, 2003; Falope & Ajilore, 2009; Mathuva, 2009), whereas this study result shows a positive relationship. Thus, as established in earlier studies, low profitability is correlated to the longer period involved in collection of accounts receivables; and therefore, improvement in the profitability by reduction in time period involved in collections of outstanding receivables is in the hands of managers.

Earlier identified positive correlation of average accounts payable (DPO) and profitability (Lazaridis & Tryfonidis, 2006; Raheman & Nasr, 2007; Dong, & Su, 2010; Gill, Biger, & Mathur, 2010), is in-line with this paper’s findings i.e., relationship between these two variables is not very significant.

While investigating the relationship between the average inventory turnover (DSI) and profitability, Raheman & Nasr (2007), Dong, & Su (2010), and Lazaridis and Tryfonidis (2006) assessed negative relationship in contrast to this paper.

Previous studies depict negative relationship between CCC and GOP (Lazaridis & Tryfonidis, 2006; Raheman & Nasr, 2007; Deloof, 2003; Shin & Seoenen, 1998; Elejelly, 2004; Dong, & Su, 2010; Falope & Ajilore, 2009; Mathuva, 2009). The negative relationship between GOP and CCC, which has been used for judging the efficiency of WCM, indicates that the longer the CCC, smaller is the profitability. However, this paper found a positive relationship between these two variables like some other studies (Gill, Biger, & Mathur, 2010), but the relationship is statistically weak.

In summary, this paper does not fully support the findings of some existing studies (which are generally based on varied industrial set-ups across the world, and not exclusive to any one particular sector), as it slightly deviates in some types of relationship, though the contrasting relationships are not statistically significant.

Since the results of this paper shows a positive relationship of variables, which goes not only to an extent against the theory establishing the relationship between WCM and corporate profitability, but also deviates from the outcome of previous research papers. This contradiction in results of this paper analysis in some respect seems to be due to the fact that DSO, DPO, DSI, and CCC (as evident from Matrix 1) has standard deviation on very higher side. High standard deviation in number of days inventory held may be due to the fact that imported chemicals by some firms might have to be purchased in bulk thereby maintaining higher inventory level at some point of time during the year. Likewise, immediate payment of imported chemicals showing high standard deviation in accounts payable.

Moreover, though the proportion of current asset to total asset on the average is around 50%, but it varies from 5% to 95%. This reveals that as such no fix pattern of these variables is being followed by the chemical sectors firms in Pakistan.

Thus, it may also leads to conclude that peculiar operating activities of a particular sector (i.e., chemical sector companies in this case) may have some influence on the relationship of variables between working capital management and corporate profitability differing from relationships found in earlier studies conducted on samples based on combination of companies belonging to different sectors.

Limitations

This investigation is based on a sample of Pakistani chemical sector firms listed at KSE. Moreover, this study covers the period which is different and also short as compared to some earlier research papers (Deloof, 2003; Shin & Soenen, 1998). In addition, some limited data could be arranged from the chosen firms (only 156 observations used whereas maximum 189 observations should have been used covering a period of 7 years of 27 firms) whereas few abnormal observations were also not included in this study. Further, this study has taken into account only the firms' internal factors and did not consider any external factors, which could also influence the ultimate impact on the profitability of the firms. Thus, findings of this paper

could be applied only to similar chemical sectors companies included in this study

Future Research

Future research may investigate a quite different and much bigger period with many more observations to establish whether similar or some different relationship exist in the chemical sector industries listed at KSE, Pakistan as well as in different countries across the world.

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THE RELATIONSHIP BETWEEN AN INDIVIDUAL'S DOMINANT VALUES AND CONFLICT MANAGEMENT STYLES: AN EMPIRICAL ANALYSIS

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Abstract

This study investigated the relationship between individuals' dominant values (Self-transcendence, Conservation, Self-enhancement, and Openness to change) and their conflict management styles (Obliging, Integrating, Avoiding and Dominating). The data for this study was collected from a convenient sample of 300 participants (N=300) from diverse walks of life such as bankers, teachers, doctors, administrators, students etc. in Quetta city, Pakistan. Portrait Value Questionnaire-PVQ and Rahim's Organizational Conflict Inventory-ROCI-II were used for data collection. Correlation and regression analysis were applied to test hypotheses. Correlation analysis was applied to investigate the relationship between values and conflict management styles whereas; regression analysis was used to determine the predictability of conflict management styles on the basis of one's values. Results of the study revealed that a statistically significant and positive relationship exists between four value clusters and conflict management styles. This study concludes that individual behaviors such as conflict management styles can be predicted on the basis of the predominant values that one has. This study makes a significant advance to the existing literatures on values and conflict management styles and also offers values as a framework of understanding and predicting individual behaviors.

Keywords: Values, conflict management styles, relationship.

JEL Classification: Z000

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Introduction

The concepts of values and conflict are regarded as some of the most popular concerns of researchers and theorists of organizational behavior and psychology fields (Kreitner and Knicki, 2007; Robbins and Sanghi, 2006). The former concept refers to an individual's preferable modes of conduct (Rokeach, 1973) used to understand, describe and predict the attitudes as well as the behaviors of human beings (Robbins and Sanghi, 2006). This growing importance has therefore made values the most researched phenomenon (Malbasic and Brcic, 2012). The latter concept, on the other hand, is a widespread and inevitable phenomenon at workplaces (Colvin, 2013; Robbins and Sanghi, 2006) and is regarded as perceived or real incompatibility among individuals, groups and other social entities (Corvette, 2007).

Scholars (Blake & Mouton, 1964; Colvin, 2013; Malbasic and Brcic, 2012; Norton, 1978; Rahim, 2002; Rokeach, 1973; Saphiere, Mikk, and DeVries, 2005; Schwartz, 1992; Tanen, 1986; Thomas, 1976) have studied myriads aspects of both concepts; but the 'types' and 'styles' of these constructs remained important concerns for them. These studies not only advanced the literature in very fields but also provoked thoughts for future research by discussing future research avenues. However, the studies conducted by Schwartz (1992, 1994, 2005 and 2006), Blake & Mouton (1964), Thomas (1976) and Rahim (2002) made major contributions in the fields. For instance, Blake & Mouton (1964) introduced a two dimensional conceptual model of categorizing conflict management styles. Thomas (1976) extended Blake & Mouton's model by introducing two new dimensions namely "assertiveness" and "cooperation". Whereas, Rahim (2002) is famous for: introducing a new taxonomy of conflict management styles and, for the development of 'Conflict Inventory', a scale to measure these styles.

Schwartz (1992, 1994, 2005 and 2006), on the other hand is renowned for his 'value theory'. This theory introduced ten basic but

universal human values (self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism) categorized into four clusters: i) self-transcendence, ii) self enhancement, iii) conservation and iv) openness to change. Schwartz also developed several measures for the measurement and identification of the dominant values of individuals. The measures developed by Schwartz (1992, 1994, 2005, 2006) and Rahim (2002) have been used by many scholars (e.g: Bond et al., 2004; Cai and Fink, 2010;Giri, 2006; Kozan and Kamil, 2002) for the identification and prediction of the value systems and conflict management styles.

Values and conflict management styles, both are characterized by some attributes. A critical review of all major prior scholarships in the very field surfaced a pattern of similarities in these concepts. For instance, the self-transcendence cluster of value and integrating style of conflict management possess more or less similar characteristics. For instance, a person, whose dominant values fall in self-transcendence value cluster prefers social justice and equality, is humble and value relationships (Schwartz, 1992, 1994, 2001, 2005, 2006). These attributes are akin to the characteristics of integrating style of managing conflicts as identified by Rahim (2002). This pattern of similitude also exists among other value clusters and conflict management styles. However, no empirical study has yet been conducted to validate this notion of similarity.

Given the above reasons, this study is aimed at exploring the interrelationships of value clusters and conflict management styles.

Literature Review

The Value Concept

The Concept of values is most commonly used for understanding, describing and predicting the attitudes and behaviors of human beings (Robbins and Sanghi, 2006). This concept also helps one to develop an understanding that how individuals, organizations, institutions and societies function (Williams, 1970; Rokeach, 1973;

Hofstede, 1980; Schein, 1985). Early theorists, such as Williams (1968) and Kluckhohn (1951) are of the opinion that people may use values as a standard or criteria to evaluate the actions, events and people in their surroundings. That is why understanding the very concept becomes essential.

Different scholars have defined values differently. But, the definition given by Rokeach (1973) is more comprehensive. He defines value as “a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence”. From this definition, it is apparent that values are the basic convictions of an individual that contain an element of judgment which means that what is good, desirable or right to him. Furthermore, these convictions carry the attributes of ‘content’ and ‘intensity’. The ‘content attribute’ says that a specific mode of conduct is important and the attribute of intensity specifies the extent of its importance (Robbins and Sanghi, 2006). A sheer agreement also exists among scholars (Rokeach, 1973, Williams, 1968, and Kluckhohn, 1951) that the concept of value is abstract in nature. Values, basically are the beliefs that one holds and that are tied to one’s emotions and ideas. Schwartz (1992, 1999, 2006) believes that values are those motivational constructs that trigger people to achieve desired ends.

As stated above, values may also serve as a criteria or the standard by which people evaluate several things such as the actions, events and people. These standards are held by every individual but in an ordered hierarchy based on the relative worth of each standard (Kluckhohn, 1951; Morris, 1956; All port 1961; Rokeach, 1973; Kohn, 1969; Feather, 1995; Inglehart, 1997). This ranking is known as the value system (Robbins and Sanghi, 2006; Kreitner and Knicki, 2007). Thus every individual possesses numerous values with a unique and varying extent of their importance. It means that a value that is of immense importance to a person might be unimportant to another (Schwartz, 1992; Schwartz, 1994; Schwartz, 2006).

Rokeach (1973) conducted a survey entitled the “Rokeach Value Survey” (RVS) to identify and categorize human values. This survey was comprised up of two different sets of questions on values and each contained eighteen individual items. One of these sets was labeled as Terminal Values which refers to the “end states of existence”. The terminal values represent the goals that an individual strives to achieve. The other set was named as an Instrumental values which refer to the choice of behaviors one opts to achieve the terminal values. These values serve as means by which terminal values can be achieved.

Following Rokeach, many scholars have conducted studies on human values. However, Schwartz is most prominent among them (Malbasic and Brcic, 2012). Schwartz (1992, 2005, 2006, 2012), from his researches, coined a perspective which was named as “The values theory”. This theory identifies ten basic universal values: i) self-direction, ii) stimulation, iii) hedonism, iv) achievement, v) power, vi) security, vii) conformity, viii) tradition, ix) benevolence x) and universalism. Each of these values is characterized by the distinct motivational goals;

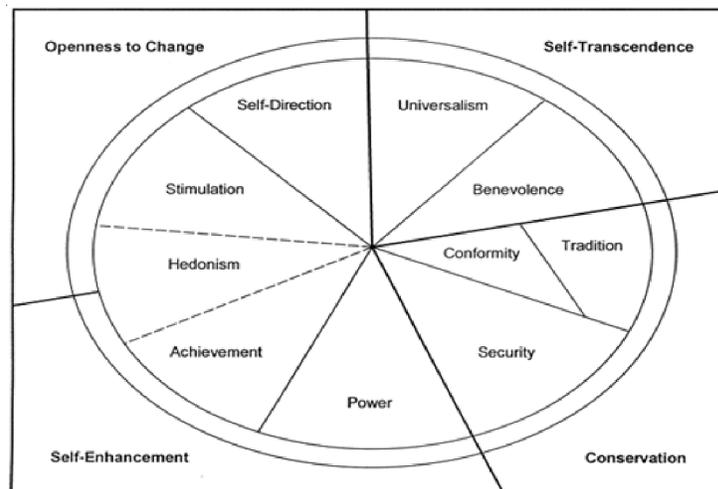
- The self-direction represents a preference to independent thoughts and actions. The people with this value are choosing, creative and exploring.
- The stimulation connotes one’s preference to challenging life, excitement and newness.
- Hedonism is an individual’s preference to seek pleasure and intense satisfaction for his/her own.
- Achievement denotes one’s inclination towards personal success by exhibiting a high degree of competence in accordance with social standards.
- Power depicts an individual’s desire of status and prestige in his / her social settings. People with this value want control and dominance over other people over the resources.
- Security represents one’s desire of a safe, harmonious and stable society. People with this dominant value desire safety of themselves and for their relationships.

- Conformity represents one's desire to limit or restraint the actions, intentions and the impulses that can harm others or violate social norms.
- The motivational goal of 'Traditions' is to accept, respect and show commitment towards the customs, ideas and traditions of any culture or religion.
- Benevolence is the desire to preserve and enhance the well-being of all those with whom one frequently interacts.
- Universalism represents the desire to understand, appreciate, respect, tolerate and protect all the people and nature that surround one.

In addition to identifying these values, the value theory given by Schwartz (1992; 2005; 2006) also explains the structure of these values with the help of a circular diagram divided into four basic parts or quadrants naming as self-transcend, self-enhancement, openness to change and conservation.

Figure 1:

The Value Theory (Adopted from Schwartz, 1992)



The theory further says that the circular arrangement of values represents the motivational quantum; the closeness and distance of these values in either of the direction around the circle show the similarity and differences in motivational goals of each. The closer the values, the more similar they are in their motivational goals; the distant the values, the more antagonists their underlying motives (Schwartz, 1992, 2005, 2006). On the basis of similarity of motives, values are grouped in four broader categories. Characteristics of each are discussed below;

Table1.

Values and their Characteristics

Values	Characteristics
Self-Transcendence	Honesty, equality, forgiveness, humbleness and social justice, openness, cooperation
Self-Enhancement	Authority, pleasure, social power desire for wealth
Openness to change	Independence, curiosity, variety in life, excitement, harmony with nature, openness to change.
Conservation	Reserve, Ambition, recognition, self-image, social order, respect for traditions, helpfulness ,hospitality

Conflict Management Styles:

The literature on conflict is huge. The term ‘Conflict’ has been defined by many authors in many ways. For instance, Corvette (2007) views conflict as incompatibility between individuals. Robbins and Sanghi (2006) view it as a state of clash or disagreement between two parties. Krietner and Knicki (2007) are of the opinion that conflict is an individual’s perception that his interests are being opposed or set back by others. But, the most comprehensive definition yielded from the conflict literature was given by Wall and Calister (1995, p. 517), according to them, “conflict is a process in which one party perceives that its interests are being opposed or negatively affected by another party.”The word process in this definition clarifies that conflict is comprised up of many stages and the word ‘perceive’ in this definition implies that the sources or causes of conflict can be real or imaginary (Krietner and Knicki, 2007).

Conflicts are pervasive and inevitable phenomenon at work places. Conflicts may foster or impede organizational productivity (Robbins and Sanghi, 2006). Therefore, these must be dealt properly in order to maintain congenial environment within the organization. This endeavor of dealing conflicts is known as conflict management and is usually one of the prime responsibilities of the managers (Wall and Calister, 1995). Some of the researchers in conflict management field use the term “style” for handling conflicts (Rahim and Bonoma 1979). Nonetheless, Thomas and Kilman (1974) argue that it is an individual’s response to conflict. According to Moberg and Philip (2001), the term conflict management style refers to the specific patterns of behavior that one employs when addressing or handling various conflict situations.

Blake and Mouton (1964) introduced a conceptual model / scheme of categorizing the conflict management styles on the basis of two dimensions: concern for people and concern for production / productivity. They classified conflict approaches or styles into five major types, i) Forcing (high concern for productivity and low concern for people), ii) withdrawing (low on both dimensions of concern for people and concern for productivity), iii) smoothing (low concern for productivity and high concern for people), iv) sharing (moderate concern for both, productivity and people), v) problem solving (high concern for both, productivity and people). Thomas (1976) extended this scheme by arguing that the approaches to conflict situations are determined by two factors; the level of assertiveness employed by a party during conflict and ii) the extent of a party’s cooperation to the other party.

Rahim (2002) elaborated the characteristics of five major conflict management styles based on two dimensions (the party’s concern for self and others). According to him;

- The integrating style of managing conflict involves; information exchange, openness, quest for alternatives,

recognizing the differences in order to find the solutions of problem or issues that are acceptable to both parties to conflict.

- The avoiding conflict management style denotes the failure of a party to satisfy the self-concerns and the concerns of other.
- In dominating style, one party goes out all in order to satisfy the self-concerns and objectives; as a result ignores the concerns and expectations of the other party.
- The obliging style is characterized by the attempts that a party makes to minimize the differences and to focus the commonalities in order to satisfy other party.
- Compromising style is associated with reaching a mutually acceptable decision; both parties give-up something for other party.

The characteristics of conflict management styles identified by Rahim (2002) are summarized as;

Table 2:

Characteristics of Conflict Management Styles

Conflict Management Styles	Characteristics
Integrating	information exchange, openness, quest for alternatives, recognizing differences, finding solutions of problems, cooperating, harmony, social justice
Avoiding	Apathy, withdrawal, avoidance, traditional, social order.
Dominating	Power, authority, self-centeredness, selfishness
Obliging	Concern for others, harmony, care, affection

The compromising style of managing conflict is characterized by a moderate concern for self and others. But, Pruitt (1983) argues that 'compromising' is not a style but a strategy. He argues that individuals apply this strategy in almost every conflict situation when they are

left with no option but compromise. Views of Friedman, Currall and Tsai (2000) are akin to the arguments of Pruitt (1983).

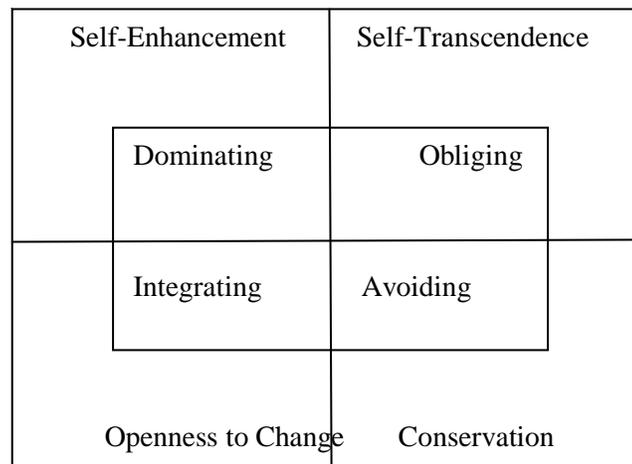
Conceptual Framework

Framework of this study stems from value theory coined by Schwartz (1992, 1994, 2005, 2006). This theory highlights the importance of values in understanding human behaviors. Following this, many scholars, by their studies have authenticated this notion. For instance, Moriss et al. (1998), studied the impacts of cultural values (high context culture and low context culture) on conflict management styles and found that conflict management styles are the functions of cultural values. They also highlighted that avoiding style is mostly preferred by people from high context cultures (China and India). Whereas, people from low context cultures (USA) follow competing style. Another study by Ohbuchi, Fukushima and Tedeschi (1999) investigated conflict orientations of individualists (Americans) and collectivists (Japanese). They found individualists following assertive style and collectivists with more inclination towards avoidance. They further argue that individualists are more oriented towards goal orientation; whereas, collectivists prefer interpersonal relationships.

Kozan and Kamil (2002), on the basis of human values identified four subcultures (Traditionals, Power Seekers, Stimulation Seekers and Egalitarians). This study also investigated the influence of these subcultures on conflict management styles. They found that the avoiding style of managing conflict is preferred by traditionalists, competing style by power seekers and accommodation style by egalitarians. Hence, it can be assumed that one's preferred style of managing conflicts has links with one's values. Keeping this assumption in mind; we traced a pattern of similarities among value clusters and conflict management styles which is summarized in the table below;

Table 3:*Commonalities among Values and Conflict Management Styles*

Values	Conflict Management Styles	Similarities
Self-Transcendence	Obliging	Honest, Caring, Harmony, and social justice
Self-Enhancement	Dominating	Desire for power, Domination, Desire to control others. Self centeredness.
Openness to Change	Integrating	Cooperation, Accommodating others and openness.
Conservation	Avoiding	Practical, Structured, Professional, Traditional, and self-respect.

Figure 2:*Conceptual model of the relationship between Values and Conflict Management Styles*

Based on the patterns of similitude discussed in table 3, it can be assumed that the concepts of values and communication are interrelated. This relationship is further elaborated in Figure 2. This figure shows four quadrants. Each of these quadrants is further divided into another. The outer most quadrants represent values and

the inner ones represent conflict management styles. These quadrants are labeled and grouped on the basis of similarities discussed above.

Major Hypothesis 1:

There exists a significant positive relationship among the values and conflict management styles.

Sub Hypotheses:

H1: *There exists a significant positive relationship between the self-transcendence value cluster and obliging style of managing conflicts.*

H2: *There exists a significant positive relationship between the conservation value cluster and avoiding style of managing conflicts.*

H3: *There exists a significant positive relationship between openness to change value cluster and integrating style of managing conflicts.*

H4: *There exists a significant positive relationship between self-enhancement value cluster and dominating style of managing conflicts.*

Major Hypothesis 2:

Values are predictors of conflict management styles.

Methodology

The aim of this study is twofold. It not only traces the relationship between the values and four conflict management styles (Integrating, Obliging, Avoiding and Dominating)¹, but also focuses

¹-Based on the arguments of Pruitt (1983), and Friedman et al. (2000) that 'compromising' is a strategy not a style; compromising was excluded from analysis.

whether values can be used as a criterion for predicting conflict management styles or not? Thus, the study follows a blend of exploratory and causal designs.

Survey is the most frequently used mode of observing individual behaviors in social sciences (Babbie, 1993: 256-257) and questionnaire is the most commonly used tool of data collection in such surveys (Sekaran, 1999:257; Yin, 1994:6). This study in alignment with previous researchers (Volkwein& Kelli, 2000; Friedman et al., 2000; Ohiwerei & Omo-Ojugo, 2008; Ongori, 2009; Schwartz, 1992, 2005, 2006, 2012) followed survey method for approaching respondents and used questionnaire as a tool for data collection.

Participants and Procedures

Initially, 500 individuals were approached and given the survey instruments by following convenience sampling technique. It is a type of **non-probability sampling** which involves the **sample** being drawn from that part of the population which is close to hand (Boxil et al., 1997: p.36). That is, a sample population is selected because it is readily available and convenient (Powel, 1997: p.68). It is a most frequently used sampling approach in social sciences (Babbie, 1993: p. 256-257; Sekaran, 1999: p.257; Yin, 1994:p. 6; Zikmund, 2004: p.342).

A total of 300 (N = 300) individuals returned the survey instrument. Hence, the response rate was 60%. This sample of 300 ((198 males, 102 females))included 181 (60 %) university students and 119 (40%) individuals from other walks of life (teachers, bankers, doctors and administrators etc.).4% of the respondents were” 20 years of age, 75% of participants were aged between 21-30 years, 20 % were aged between 31-40 years and6% of the sample were of above 41 years of age. The sample was comprised up of Urdu Speaking (21%), Pashtoons (29%), Baloch (10%), Brahvi (5%), Persian (07%), Sindhi (5%), Kashmiri (3%), Punjabi (16%), Saraiki (2%) and others (2%).

Instruments

Portrait Value Questionnaire (PVQ)

The PVQ by Schwartz et al., (2001) was used as a part of the study to determine the predominant values of respondents. It has forty items with a six point likert scale (Not like me at all, Not like me, A little like me, Like me, Very much like me). The reliability statistics for the major four clusters/ dimensions of the values were reported as; self-transcendence ($\alpha=.797$), conservation ($\alpha=.862$), openness to change ($\alpha=.751$) and self-enhancement ($\alpha=.773$). Factor analysis of PVQ as summarized in the following table indicates satisfactory factor loadings and sampling adequacy($KMO = .895$).

Table 4:
Factor Analysis of PVQ

Dimensions	Items on Scale	α	Factor Loading Range	KMO
Self-Transcendence	10	.797	0.632-0.879	.895
Conservation	13	.862	0.554-0.897	
Openness to Change	10	.751	0.717-0.846	
Self-Enhancement	07	.773	0.596-0.861	

Organizational Conflict Inventory

A 28 items scale, entitled Rahim's Organizational Conflict Inventory (ROCI-II) by Rahim (2002) with a 7 point scale ranging from Strongly Disagree to Strongly Agree was used to gauge the individual conflict management styles of respondents. The respondents were asked to recall as many recent conflict situations as they possibly can before answering the items on scale. The style wise reliability measures of the items on scale were obtained as; integrating ($\alpha=.823$), obliging ($\alpha=.79$), avoiding ($\alpha=.76$) and dominating ($\alpha=.715$). ROCI's factor analysis shows sufficient sample adequacy ($KMO = .832$) and satisfactory factor loadings ($> .30$).

Table 5:
Factor Analysis of ROCI-II

Dimensions	Items on Scale	α	Factor Loading Range	KMO
Integrating	07	.823	0.517-0.792	.832
Obliging	06	.790	0.614-0.833	
Avoiding	06	.760	0.706-0.801	
Dominating	05	.715	0.598-0.846	

Results

Every statistical technique assumes certain assumptions. For instance, normality of data is one of the significant assumptions of almost every statistical technique. We, a priori of heading towards hypotheses testing, tested this fundamental assumption by determining skewness and Kurtosis of major study variables. As a rule of thumb, the value of skewness and kurtosis should fall within the range of ± 2 . The reported values of skewness-kurtosis of all major variables indicated that the distributions of these variables are normal. After checking normality, matrix plots of these variables were drawn to detect outliers. But no significant outliers were found. Scatter plots were also drawn to determine the linearity of variables. the obtained outputs verified the linearity of variables.

Two major hypotheses were articulated for testing. The first hypothesis claims about the existence of a statistically significant and positive relationship between the value clusters and conflict management styles. Pearson Correlation analysis was run to test this hypothesis. The results of correlation analysis along with the means and standard deviations of values and conflict management styles are summarized in Table 6.

Table 6:
Correlation Analysis

Variables	Mean	SD	1	2	3	4	5	6	7	8
1) Obliging	4.989	.89724	1							
2) Avoiding	4.8312	.99974	.225**	1						
3) Integrating	5.7689	.08763	.378**	.345**	1					
4) Dominating	4.4327	1.0973	.190**	.132**	.022	1				
5) Self-Transcendence	5.8761	.72344	.609**	.136	.356	.115	1			
6) Conservation	4.4963	.91321	.572	.698**	.558	.129	.194**	1		
7) Openness To Change	4.3727	.75862	.284	.127	.701**	.294	.168**	.287**	1	
8) Self-Enhancement	4.0122	.97820	.128	.298	.059	.697**	.224**	.301**	.232**	1

N=300, ** Correlation is significant at the 0.01 level (2-tailed).

The reported means and standard deviations of Conflict Management Styles are: Obliging 4.8429(.89724), Avoiding 4.8312(.99974) Integrating 5.7689(.8763), and Dominating 4.4327 (1.0973). The rank order (highest to lowest) analysis of the means of conflict management styles divulges that Integrating is the most employed style of respondents. Obliging style is the second most used style of conflict management. Avoiding style is ranked third and dominating is the least preferred conflict management style of respondents. Whereas, the means and standards deviations of value clusters are: Self-Transcendence 5.8761 (.72344), Conservation 4.4963(.91321), Openness to Change 4.3727(.75862) and Self-Enhancement 4.0122(.97820). The rank order of the means of value clusters reveals that Self-transcendence is the most dominant value of respondents. Conservation, openness to change and self-enhancement are ranked second, third and fourth in the hierarchy of respondents' values.

Table 6 also reveals the presence of a statistically significant and positive relationship between the conflict management styles and the value clusters. The obliging style of conflict management and self-transcendence value cluster were found positively correlated with each other ($r = .609, p < 0.01$). The Conservation value cluster and Avoiding style of conflict management were also positively related ($r = .698, p < 0.01$). And a significant positive correlation was also observed between Openness to change and Integrating style of conflict management ($r = .701, p < 0.01$). Lastly, a statistically significant and positive relationship was also reported between Self-enhancement value cluster and dominating style ($r = .697, p < 0.01$). No

relationship of any kind, other than the hypothesized was found among values and conflict management styles. This verifies that all assumed relationships are real.

The second major hypothesis of this study states that one's conflict management styles can be predicted on the basis of his/her dominant values. Simple Linear Regression analysis was run to test this hypothesis. Results of regression analysis are summarized in table 7.

Table 7:
Regression Analysis

Model	Standardized β	R ²	t	Sig.	F	Sig.	Durbin Watson
Model 1	0.609	.370	10.456	0.000	109.32	0.000	2.1334
Model 2	0.698	.487	8.273	0.000	68.45	0.000	1.9974
Model 3	0.701	.491	9.764	0.000	95.34	0.000	2.0197
Model 4	0.679	.461	9.872	0.000	97.46	0.000	2.1997

In Model 1, self-transcendence is taken as predictor variable and obliging style of managing conflicts as response or dependent variable. Statistics in Model 1 verify that self-transcendence can significantly predict obliging style of conflict management ($\beta = .609$, $t = 10.456$, $p < 0.05$) with the power of causing significant proportion of variation in obliging style ($R^2 = .370$, $F = 109.32$, $p < 0.05$). Thus, based on these evidences, it can be said that the people whose dominant values lie in self-transcendence value cluster would follow obliging conflict management style. In Model 2 Conservation is regarded as a predictor variable and avoiding style of conflict management as dependent variable. Results show that avoiding style can be significantly predicted by conservation value cluster ($\beta = .698$, $t = 8.273$, $p < 0.05$). Conservation also explains a sizeable amount of variation in avoiding style ($R^2 = .487$, $F = 68.45$, $p < 0.05$). These results lead us to the conclusion that the avoiding style of conflict management can be predicted on the basis of conservation value cluster.

Model 3 considers openness to change as independent and integrating style as dependent variable. The impact of openness to change upon integrating style is also significant ($\beta = .701, t = 9.764, p < 0.05$) with a noticeable variation ($R^2 = .491, F = 95.34, p < 0.05$). Thus, those who possess values that fall in openness to change value cluster would follow integrating style of conflict management. Lastly, Model 4 takes self-enhancement as explanatory variable and dominating as dependent. The impact of self-enhancement value cluster on dominating style is also significant ($\beta = .679, t = 9.872, p < 0.05$) with the power of explaining a visible proportion of change ($R^2 = .461, F = 97.46, p < 0.05$) in it. Hence, it can be rightly claimed that individuals whose dominant values are self-enhancement, they opt dominating style while managing their conflicts.

Last column of table 7 exhibits that the values of D-W statistics lie in acceptance region and that all models are free of auto correlation problem. Thus, we conclude that values are significant predictors of individual behavior.

Discussion and conclusions

Early scholars (Allport 1961; Bond et al., 2004; Hofstede, 1980; Inglehart, 1997; Kohn, 1969; Kluckhohn, 1951; Kozan & Kamil, 2002; Morris, 1956; Morris, 1956; Malbasic and Brcic, 2012; Norton, 1978; Rokeach, 1973; Saphiere, Mikk, & DeVries, 2005; Schwartz, 1992, 2005, 2006, 2012; Tanen, 1986) have claimed that values underpin attitudes and behaviors. Researchers (e.g. Kozan & Kamil, 2002) have used values as a criterion for predicting social organization (cultures) of individuals. But, empirical research on the impacts of values on specific individual behaviors was very little. Keeping this gap in consideration, we started reviewing prior studies that related values with individual behaviors (see for instance Kamil & Kozan, 2002, Moriss et al., 1998, Ohbuchi et al., 1999) and found an analogy of characteristics among value clusters and conflict management styles. Therefore, we focused this study on exploring and examining the relationship between these constructs that is the value clusters (self-transcendence, conservation, self-enhancement and openness to

change), and conflict management styles (Integrating, Obliging, Avoiding and Dominating).

Two major hypotheses were posed for testing. The first hypothesis (with four sub hypotheses) claimed that values and conflict management styles would be positively related. And the second major hypothesis supposed that values would predict conflict management styles. These hypotheses were built on the basis of certain commonalties highlighted by the findings of Kozan and Kamil (2000) and Rahim (2002). Correlation and regression analysis were run for hypotheses testing. Both hypotheses received considerable support from results. Correlation analysis revealed that the hypothesized notion of positive relationship between value clusters and conflict management style is statistically significant. The strength of all relationships is greater than .50 ($r > .50$) which verifies that all associations are real and not by chance. These results are in line with the findings of Kozan and Kamil (2002).

This study brings forward several facts. First, results confirm that people whose dominant values fall in the self-transcendence quadrant of values follow obliging style of conflict management. It is due to that fact that self-transcendent people care for other; they value harmony and prefer social justice. This is why they are helpful to others and try to accommodate the concerns of others. Second, the individuals whose dominant values lie in conservation value cluster tend to be avoiding. They are reserved by nature, are coy, prefer social order and try to avoid encounters. Therefore, they prefer to avoid conflict situations. Third, self-enhancement people on the other hand are very authoritative; they want to gain control of the situations they are the part of and of other people involved in these situations. Their desire to overwhelm others leads them to be dominating while managing conflicts. Lastly, open people are very ambitious by nature. They are welcoming by nature and want to harmonize with others. These characteristics are akin to integrating style. That is why openness to change is found positively related to integrating style.

These findings lead us to the conclusion that each pair of values and conflict styles: i) self-transcendence and obliging, ii) conservation and avoiding, iii) self-enhancement and dominating iv) openness to change and integrating is characterized by similar characteristics. Thus, we reinforce the beliefs of early researchers and theorists (Hofstede, 1980; Luthans, 2005; Robbins and Sanghi, 2006; Rokeach, 1973; Schein, 1985; Williams, 1970) that values are the standards which can be used to understand and predict the attitudes, behaviors and actions of human beings in their native settings.

To sum up, it can be asserted that values and conflict management are interdependent phenomena and are similar domains of discourse. A statistically significant relationship between these constructs can be used as a guide to understand the extent of connection between these. Moreover, this study also highlights the power of values to predict different behavioral outcomes.

Some of the potential limitations of present study include the particular sample, data type and measurement technique. A sample of 300 was collected from Quetta the capital city of Baluchistan province in Pakistan. This region differs from other provinces on the basis of its unique values, cultures and traditions. Therefore, the findings of this study may not be generalized. Hence, we recommend replicating same study with a larger sample and scope. Further, cross sectional data was used in the study; future studies may be conducted by following a longitudinal design. The self-reported/administered instrument is another limitation. This self-reporting may not correspond to the actual behaviors of respondents; therefore, observation method may be applied to explore the actual behaviors. Managers, during recruitment and selection processes may use values as a criterion for predicting job related behaviors. Future studies may also be undertaken in order to ascertain the impacts of values on different job related behaviors such as performance, citizenship and counterproductive behaviors.

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IMPROVING STUDENTS' WRITING ABILITIES THROUGH SPECIFIC GOAL SETTING AND TEXT-BASED APPROACH

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Abstract

In recent years, the compelling concern that has engulfed university teachers in Pakistan is their students' ineffective writing compositions. Students, in their freshmen years, do not acquire the proficiency in English writing they require to thrive in university, at work, or in personal practice. To address this short coming and imply an efficacious pedagogical practice for teaching writing to students in their early years of university, the researchers carried out an action research to implement Goal Setting Theory that claims to spur motivation and incorporating Text-based approach for teaching to foster students English writing skills. The researchers analyzed sixty five documents of students' paragraph writing before and after instructional design and evaluated these documents by weighted rubrics for over all cohesion and coherence. It is concluded that students writing literacy increased substantially when they were given specific task of writing a paragraph instead of enhancing their overall writing performance. The findings showed that students writing literacy increased substantially when they were given specific task of writing a paragraph through emulation instead of being asked to enhance their overall writing performance.

Key Words: Action Research, Text-based Approach; Goal Setting Theory, Document Analysis

JEL Classification: Z 000

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English has not only become the first international language in the past few decades, but it has also spread across the world significantly including Pakistan. It enjoys the highest status and has been occurring as a symbol of prestige to all domains of power in Pakistan since its independence in 1947 (Rahman, 2002). Because English has come to the surface as the international language for business, education, disquisition, and scholarship, consequently, according to Shamin (2008), the government of Pakistan has introduced English language as a medium of instructions from Grade 6. On the other hand, Warsi (2004) observes that even though students study English for about 6 – 8 years in Pakistan, they are unable to efficiently communicate in English. He also indicates that especially in instances where the students use English as their third language (L3), they lack in four major linguistic skills of listening, speaking, reading and writing. As a matter of fact, the English teaching in Pakistan has not provided students with the much needed communicative competence.

It has also been advocated by the university English teachers that the writing proficiency level, including efficient and economical use of words and style, of students entering the university after the attainment of at least six years and in some cases around thirteen years of English education is not up to the standards. Similarly, the college lecturers estimate 50% of senior school students do not possess the quintessential writing skills required in college (Achieve, Inc. 2005). However, Warsi (2004) exhorts that second language acquisition is crucial. At the same time, National Commission on Writing (2004, as cited by Graham, 2007) unveiled the fact that business organizations in America have set an annual budget of \$3.1 billion for their employees' to help them write better.

In fact, teaching and learning in higher education revolves around students' writing (Hyland, 2011). Monroe (2003) also upholds the notion that efficacious writing is the centrifugal force that keeps students focused in higher education. Thus, rendering from the theory of Goal Setting and Task Performance by Dr Lock and Latham (1990), the researchers will examine how the goal setting and task performance impel university students in Pakistan to achieve mastery in their writing task. In addition, the researchers will also illustrate the students' longitudinal self-efficacy through Goal Setting Theory and Text-based

Approach using document analysis. Finally, the recommendations for prospective research and its association with the classroom practice will be addressed.

Purpose of the Study

The purpose of this investigation is to not only foster university students' writing literacy through Goal Setting and Text-based Approach but also to provide a new impetus to English teaching. Therefore, the study had the following aims and objectives:

- i) To determine students' writing competence in their freshmen year.
- ii) To probe students' cognizance of specific text peculiarities such as text organization (the requisite and discretionary actions), cohesiveness (sentence structure, tone, mechanics and transitions) and coherence (topic sentence, content and concluding sentence).
- iii) To determine the congruity of Text-based Approach for foreign language learners.

Based on the above aims and objectives, the following questions were addressed for the present study:

- a) To what extent are the Pakistani university freshmen proficient in academic writing?
- b) To what extent Goal Setting Theory and Text-based Approach is effective in developing students' English writing skills?
- c) How does the Text-based Approach assist students in bringing out the required writing skills?

Literature Review

According to Diamond and Graham (1999; 2006b) writing is a powerful tool that can help achieve variety of goals. It also facilitates writers to persuade their readers (Graham & Perin, 2007). In a similar

vein, through writing, writers set their identity and mark their style to persuade or dissuade their readers (Hyland, 2011). Adolescents who struggle to be competent in this area are more likely to suffer in academics where writing is a yardstick to assess their progression (Graham, 2006b). Perhaps these less able writers also fail to keep themselves abreast with the modern world where email writing usurped telephonic communication (Graham & Perin, 2007). In spite of the growing prominence of writing in academics and workplaces, adolescents do not seem to be successful in meeting the writing demands at university and work. National Assessment of Educational Progress (2002) as cited in Persky, Daane and Jin (2003) also proclaims that many youngsters struggle to keep up with the requirement of writing competency crucial to meet the standards of their academic grade.

This fast increasing eminence of English writing and adaptation of ‘writing across the curriculum’ (WAC) throughout the world during the past decade has witnessed substantial renewed impetus. However, Pakistan as a multilingual country encounters substantial challenges when it comes to English language learning among students. Moreover, it has been indicated by university teachers that the students are unable to attain the writing proficiency, including precision, cohesion, coherence and stylistics even after thirteen years of English education. According to Mansoor (2003) despite the over emphasis on English language teaching, there are many hurdles such as supply of English teachers, the knowledge of latest pedagogies for English teaching and availability of English text books that need to be overcome for obtaining the desired result. Hyland (2011) claims that the academic literacy students develop in their university years decides their future ability to work. Hence, to examine university students’ English writing capabilities, paragraph writing is an essential skill to acquire. As Kaplan (1966) claims that paragraph structure of every language is distinct and peculiar and understanding this unique structure is pivotal to learn that language. In English speaking countries, it means direct instructions in mother tongue that subsequently made them the part of academia. On the other hand, L2 and L3 writers bear the burden of learning the skills that helps them join the new language community along with the troubles of integrating with the international academic community as well. Notwithstanding

the freedom of choosing language, PhD students also write their doctoral theses in English when studying abroad (Wilson, 2002).

Goal Setting Theory - Theoretical and Conceptual Framework

Keeping complexity in view, it is more realistic to set short term goals for not only teachers but also for students, hence, paragraph writing is the ideal choice. Lunenburg (2011) strengthen the concept of complex but attainable goals by stating that individuals who are provided with specific, difficult but attainable goals perform better than those given easy, non-specific, or no goals at all. Goals that exhibit individuality and attainability are proved to be successful in elevating progression than general perspective goals. The act of writing itself is a goal-directed thinking process, guided by the writers own growing network of goals (Flower & Hayes, 1981). Bandura (1986, 1988) canvasses how the effects of goals are also reciprocal to increase one's belief on his/her own capabilities and test them to its relegated levels. Research shows that students strive to achieve goals they set out for themselves (Schunk, 1990). Also, self-efficacy is substantiated when students perform their tasks while keeping tabs on the goal progress because progress shows them that they are becoming skillful (Bandura, 1986; Locke & Latham, 1990).

Schunk (1990) believes that there is a direct correlativity exists between goal setting and self-efficacy. Setting realistic, challenging and attainable goals and strive to achieve them elevates the perception of self-efficacy in students. This elevated self-efficacy, in turn, leads them to set more goals for future. American leaders have long been stressing every individual of their nation to be responsible for their own learning (Zimmerman, 1990). The goal of the EFL teachers should, therefore be, to ensure self-efficacy of students – one way of attaining this self-efficacy is through employing an approach which sees language as a functional and efficient device for communication in a similar concept posited by Halliday & Hassan (1976). Therefore, in addition to the Goal Setting, an approach for teaching is also required that can give the language learning a pragmatic sense.

Text-based Approach

Concordant to the concept of a functional and efficient device for communication, an approach or a method is required that would not only make students familiarize with the variety of texts that serve the communal and communicatory objectives of the society but at the same time would also help students illustrate how the language functions to give the specific subject matter a semantic and pragmatic worth. Thus, the aim here is to not only make the text grammatically correct but also to show how tactfully language should be used to communicate its overall purpose contextually. So, the ideal way to conform to these requirements is to teach writing with an instructional programme that deals with syntactical, semantical and pragmatical aspects of the subject matter. Thus, with goal setting as a directional programme, teachers take up Text-based approach to design their instructional programme. “This approach requires students to explore a range of different text types, to consider the communicative purpose of the texts and discover how these purposes are realized through text structure, discourse and grammatical features” (Nicole, 2009, p. 2). Text-based Approach, also called ‘Genre-based Pedagogy’, has diverse characteristics and focuses three dimensions to make text meaningful and purposeful: conceptual, textual and social dimensions. Different text types have different conceptual, textual and social dimensions and students must comprehend these features to attain the writing mastery (Nicole, 2009). Robert Kaplan (1966) put forward contrastive rhetoric to understand the organisational pattern of the specific text type. Students deconstruct the model text and reconstruct text types of their own choice as well as making themselves independent and resourceful. These independent and resourceful learners develop the ability to actively search the required relevant information when needed and overcome the obstacles such as inconsistent teachers, complicated text and uncomplimentary study conditions that oppose their progress (Zimmerman, 1990).

Zimmerman (1990) pointed out that Benjamin Franklin improved his writing skills by emulating exemplary text types. Text-based approach may seem to have just entered as the latest teaching pedagogy but in effect it is being successfully used over centuries. Over and above, writers also need to keep the audience in mind. As Nunan (2003) defined that discerning writers always incorporate

audience perception with their own expression. In effect, teachers have an additive responsibility to teach students writing according to both audience and text based (Johns, 1986). Thus, Text-based Approach seems to be congruous for second and third language pedagogy.

Action Research

Action research helps practitioners to practically look into their own work and assess 'where they presently are' and 'where they would like to be'. Action research is not doing research on others but to do research on self to find out the technique or method through which one can solve problem at hand. Hence this method of self-evaluation can best be used by teachers to evaluate the writing progress of their students. As Bradbury and Reason (2001) explain that it provides researchers an ideal platform to work closely in search of solution to exigent concerns. It not only provides practical solution to the concerned people but also expedites the process by bringing action, reflection theory and practice together. Action research provides practical answers to the real problems arising from day to day professional practice and not from those that might be in fashion in some learned discipline (Altrichter, Feldman, Posch & Somekh, 2008). According to Brydon-Miller, Greenwood and Maguire (2003) various researchers reported action research as the most congruent, popular and propitious method of finding solution to the problems arising in university classes. It is the responsibility of the teachers to use this method either individually or collaboratively to overcome the prevailing problems in their classes or educational institutes and in the process develop themselves, to best, personally and professionally.

Setting

This research was conducted at the Institute of Business Management (IoBM); a private Business and Management University in Karachi, Pakistan. The Bachelor of Business Management (BBA) program at IoBM has one Academic English course prerequisite for three Business English compulsory courses. The academic English Course is designed to enhance students' writing as well as their critical reading skills. Each course is completed within the time period of one semester, equaling to twenty-four teaching sessions – each teaching

session comprising 1 hr. 30 min. Collaborative Action Research was conducted by two teachers teaching Academic English course after identifying the problem that existed in students' writing literacy.

Process for Collaboration

Collaborative action research is only possible if all the stakeholders that are collaborating have a central interest. Therefore, when people work in collaboration, they do not only make changes in the society and in an organization but they also change personally through reflecting on their own experiences and on the experiences of their collaborators (Brydon-Miller, Greenwood, & Maguire, 2003). It is a fundamental part of any collaborative action research that collaborators should sit and reflect on one another's problems. The same was done by the collaborators in this research.

The two researchers collaborated in the following manner:

- After receiving the initial data, they conducted a meeting in which they decided to use Text-based Approach to teach their students paragraph writing along with the directional programme of Goal Setting.
- They chalked down an outline of how the Text-based Approach was to be used
- They met after every session to discuss any problem that they encountered and ways to overcome them
- They decided to introduce various worksheets that would facilitate the Text-based Approach
- The first fifteen minutes in every session were to revise whatever activity they had planned for their respective classes.
- Identical lesson plans were made to help them teach identically

Methodology

Sample

Since the aim of this study is to analyze the writing capabilities of university students, therefore, the sample consisted of students belonging to two sections of Academic English class with 29 students in one section and 36 in the other. The academic writing capabilities of the students were diverse due to disparate educational systems in Pakistan – one being the local Matric System and the other one being

Cambridge International System. Over and above, the difference also existed in their practice of English language, for some Pakistani students, it may be L2 while for others it may be L3.

Design

Collaborative action research was used to measure the students' progress and also the effectiveness of pedagogical practices implemented. The basic concept of action research lies in the philosophy of pragmatism. Pragmatism works in two ways: firstly, according to Baskerville and Myers (2004) this is achieved through knowing the purpose of the research; it should be thoroughly understood theoretically. Secondly, action research can only be conducted if there is a practical action in the problem setting (Baskerville & Myers, 2004). Keeping in mind the pragmatism of action research, two teachers teaching Academic English collaborated to look into the corresponding problem of their students' incoherent writing. The goal that motivated the teachers was to improvise a strategy to teach students coherent paragraph writing within two weeks. Since "Goal Setting is the underlying explanation for all major theories of work motivation" (Lunenburg, 2011, p. 1), the goal that motivated students was to obtain good grades in paragraph writing.

Diagnostic Test

The action research cycle was triggered by the identification of students' inability to write in a well-structured and coherent manner. The problem was gauged by giving students a paragraph writing task in their first Academic English class. The time allotted to them was 45 minutes. It was observed that most of the students completed this task within 30 minutes.

A comparative text analysis was conducted on these paragraphs with the help of weighted rubrics to collect data and deduce an action plan for the students under investigation. The implementation of the initial data provided us with the following observations:

- **Topic Sentence:** The students had no idea of a topic sentence.
- **Content:** Since the topic is related to the topic sentence, in absence of a topic sentence, the students' writings were divergent.

- **Sentence Structure:** Students' writing reflected limited control over sentence structure that includes word choice, style, tone and transitions. However, there were very few errors in subject-verb agreement.
- **Mechanics:** Students' writing revealed sufficient control over spellings with few errors in grammar and punctuation. It was clear though, that some of the students did not know the difference between a paragraph and an essay. Majority of the students were unaware of the difference between the block and indented formats of written work. The students did not have a very clear idea of techniques employed to write a title.
- **Concluding Sentence:** Students' writing showed either no concluding sentence or discordant concluding sentences

Instructional program

The resulting incoherence in students' written expression helped the teachers to deduce a strategy to overcome this problem. The aforethought strategy included Text-based Approach to teach students paragraph writing. Richards (2006) explained that this approach is implemented through five phases.

Phase 1: Building the Context

Here the students are introduced with the model text which will be studied - selected as the course objectives dictate.

Phase 2: Modeling and Deconstructing the Text

The students, with teacher's guidance, study the structural pattern as well as the language feature of the model under study

Phase 3: Joint Construction of the Text

The students start to build their own models of text type

Phase 4: Independent Construction of the Text

The students now build text types independently

Phase 5: Linking to Related Texts

The students in this phase are able to link what they have learnt in other texts. Since this approach requires learners to first deconstruct the model texts followed by constructing their own texts and while doing so they become self-efficacious (Nicol, 2009). The instructors had four sessions – six hours to teach paragraph writing effectively. The text based activities were divided in the following manner:

1st Session: To execute Text-based Approach efficaciously, students were given three paragraphs on diverse topics and were asked to canvass their communicative purpose and its execution through text structure and grammatical features. The instructors helped the students to conceive the difference between a paragraph and an essay; they apprehended the techniques of writing a title and were able to distinguish between the indented and blocked formats. The students were also instructed about the appropriate length of a paragraph.

2nd Session: This session was dedicated to teaching of the topic sentence. The students were asked to take out the sample paragraphs given in the 1st session and to underline the topic sentence in each paragraph. They assimilated the concept of a topic sentence with the help of worksheets in which they were instructed to rewrite the given topic sentences so that they encapsulate the whole idea of a paragraph. The students were also given three topics upon which they were to produce their own topic sentences. These were checked in the class and the weaknesses were discussed with the students.

3rd Session: Students were once again asked to revisit the paragraphs given in the 1st session and to analyze and comprehend the sentence structure of the sample paragraphs, keeping in mind the use of transitional words, phrases and sentences. To facilitate the learning process, the students were given worksheets in which they had to fill in the missing transitional words, phrases, and sentences. The students were told to produce supporting sentences for the three topic sentences they wrote in the 2nd session. The supporting sentences for one paragraph were checked in the class and the

feedback was given to the students, whereas, the other two topics were to be done as homework.

4th Session: Feedback was given on the homework that the students were asked to do. The students were once again told to take out the sample paragraphs provided to them in the 1st session. They were asked to underline the concluding sentences of the paragraphs. Information regarding the concluding sentence was imparted to the students. In addition, they were given worksheets in which they had to write a concluding sentence for given paragraphs. The students were then asked to write a concluding sentence for the three topics that they had worked upon in 2nd and 3rd session. The concluding sentences were checked in the class and at the end of the 4th session, the students had three complete paragraphs, written according to paragraph writing rules.

5th Session: The students were instructed to imply the techniques of composing an academic paragraph and were informed that this task would be evaluated and graded.

Keeping in mind Nunan (2003) feedback is to be given continuously to the students in form of comments or a small summary so improvements can be made accordingly and independently; the same was done throughout the instructional programme.

Instrument

Documentary analysis was used to find out the effectiveness of teaching instructions and the students' writing before and after instructional programme. As discussed by the comparison between the paragraphs written pre Text-based Approach instructional programme and those written post Text-based Approach instructional programme, helped the teachers measure their own as well as the performance of their students. It aided teachers to evaluate the extent to which their goal was achieved. Hence, the comparative analysis helped teachers to get an in-depth analysis of their teaching methodology and captured student response.

The rubrics which measured improvement in the topic sentence, the content, the sentence structure, the mechanics and the

concluding sentence were used to assess the paragraph writing of the students. The instructors assessed the above mentioned parts of the paragraphs by allotting the following scores:

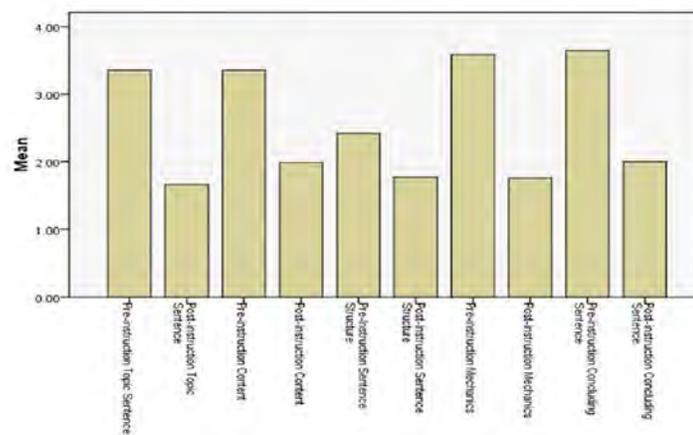
- 1 - Exemplary
- 2 - Proficient
- 3 - Marginal
- 4 - Unacceptable

By using these scores for the criteria, the teachers were able to measure the difference that exists in the writing skills of the students, pre Text-based instructional programme and post Text-based instructional programme.

Results

The results were very encouraging for the teachers as there was a stark difference between the students' paragraph writing skills pre Text-based instructional programme and post Text-based instructional programme. Graph 1 shows the improvement in students' work.

Graph 1- illustrating the mean difference that exists in the various parts of students' paragraphs pre Text-based instructional programme and post Text-based instructional programme instruction.



If we analyze the results holistically, the mean of pre-instruction written works of the students lies within the range 3(marginal) and 4 (unacceptable) except for sentence structure that lies within 2 (proficient) and 3 (marginal). The written work of the students improved after four sessions of text-based teaching. The writing that lay between 3(marginal) and 4 (unacceptable), both, moved towards 2 (proficient) in only four weeks' time.

Topic Sentence

Through the frequency table in Appendix A, we can easily assess that in classes where not even one student previously wrote exemplary topic sentences after the Text-based instructions there were 34 students out of 65 who were producing exemplary topic sentences.

Content

When it comes to content, the students before the Text-based instructional program were not able write the content of the paragraph according to the topic sentence, therefore not a single student achieved the level of exemplary content writing and only five produced proficient content. On the other hand, after the Text-based instructions, 24 students out of 65 were able to write exemplary content.

Sentence structure

There was not much difference in the sentence structure results of the students and the instructions given did not change the results drastically.

Mechanics

Mechanics was an area where there was tremendous improvement, where pre-instruction only 01 out of 65 students was able follow all the mechanics, post-instruction 33 out of 65 students were writing using exemplary mechanics.

Concluding sentence

Students were able to grasp the idea of forming a clear concluding sentence. Only 01 student out of 65 was able to give a relevant

concluding sentence before implementation of the Text-based Approach. After the implementation of this approach, 22 students produced effective concluding sentence.

On the whole the four week experiment with Text-based Approach was successful.

Discussion

To address students' writing incompetence in a limited period of time, it was essential for the teachers to not only stimulate their interest to learn this complex skill but also to sustain that newly developed interest and progress. Hence, drawing on the foundational theory of 'Goal Setting and Task Performance' by Dr Locke and Latham (1990), it was examined how the specific goal setting and task performance influence the writing skills of higher education students in Pakistan. Pertaining to the specific Goal Setting Theory, the above results illustrate that the students when given a specific task of writing a paragraph along with the motivational goal of obtaining good grades, they enthusiastically achieved the task. As research has proved that specific goal setting motivates students towards learning (Locke & Latham, 1990; Bandura, 1986), therefore, another motivator for the students was the experience and sense of self-efficacy (Schunk, 1990) which was achieved through independent paragraph writing. The goal of writing an effective paragraph independently was an individual task that carried a level of complexity and attainability. Therefore, it fulfilled Schunk's (1990) criteria of goal properties. The Goal Setting Theory also worked for the teachers as they were able to obtain their goal of teaching students coherent and cohesive paragraph writing through the Text-based Approach. For the teachers these goals had individuality, proximity and complexity (Laock & Lathan, 1990).

Larson-Freeman (1983a, 1983b) points out that to make informed choices is a teacher's responsibility for effective teaching, therefore, in this research the teachers' decision to adopt the Text-based Approach worked effectively. Since texts used in Text-based Approach represent the individual structure or pattern of the language, which makes it important to understand that particular language pattern (Richards, 2006) the teachers were successful in obtaining fairly

cohesive and coherent paragraphs as the focus of Text-based Approach is to produce structured and sequenced texts. It was recorded that there was not much difference in the sentence structure results of the students' pre and post Text-based instructional program. The reason may lie in the fact that more time is required to teach effective sentence structure and the researchers only had four weeks to teach paragraph writing.

Continuous feedback in the form of comments (Nunan, 2003) played an important role in the progression of students' writing. The students were able to grasp the concept of various parts of a paragraph through sample writings and emulate the same. Furthermore, they were able to use correct mechanics and also the overall organization was standardized, hence, it can be concluded according to Nunan (2003) that the students had showed evidence of second language acquisition.

In the limited time of six hours of learning, students practiced paragraph writing by examining various models of paragraphs. Also, they interpreted coherence and cohesiveness of an effective written composition by deconstructing it in different categories such as a robust topic sentence, relevant content, appropriate mechanics and a concordant concluding sentence. In addition, students were given autonomy of completing the writing task independently through emulation.

Students took the challenge as they had the incentive of attaining good grades through their diligent work. Through regular writing practice and continuous progress feedback in classroom, students showed a considerable progress in their post-instructional programme writings.

Way forward

The teachers felt that the time duration was a hindrance and therefore sentence structure could not be given its due importance. More time was required to concentrate on the sentence structure. However, Text-based Approach was successfully implemented and research results prove that it can be used to teach other genres of English Language as well. Also, the same approach can be implemented to teach essay writing.

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Appendix – A
Frequency Table for Paragraph Writing

Rubrics Measurement	Topic Sentence		Content		Sentence Structure		Mechanics		Concluding Sentence	
	Pre- instru- cti on	Post- instru- cti on								
Exemplar y (1)	Nil	34	Nil	24	8	30	1	33	1	22
Proficient (2)	4	19	5	22	30	24	Nil	20	Nil	25
Marginal (3)	34	12	32	15	19	7	24	7	20	14
Unaccepta- ble (4)	27	Nil	28	4	8	4	40	5	44	4
	65	65	65	65	65	65	65	65	65	65

DIFFERENCES BETWEEN UNIVERSITY PROSPECTUS CLAIMED FACILITIES AND REAL PHYSICAL FACILITIES

Fareeda Ibad¹

Abstract

The study attempted to examine the existence of “real” physical facilities as against “claimed” physical facilities evident in the five business schools chosen for the purpose. The importance of physical facilities was explored in the context of the teaching and learning process. Document analysis of the business school prospectuses was done with a view to comparing “claimed” and “real” physical facilities. For the field observation, a self-structured instrument tagged as Checklist was developed on a 6 -point Likert scale. The study revealed that physical facilities were not highly adequate; however, efforts to provide physical facilities were evident in the learning context. The levels of availability and adequacy of physical facilities were moderate and in keeping with the policies of education planners in Pakistan tending toward not giving importance to this aspect of higher education.

Keywords: Physical facilities, teaching and learning, education infrastructure, university prospectus

JEL Classification: Z000

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Education, in today's world is an essential tool in the quest for empowerment, national development, and progress. Any nation lacking a stable philosophy and educational culture stands vulnerable to breaking down; however, nations with an eye to education development are destined to succeed. In this regard, higher education in a highly knowledge-driven economy can be viewed as a major propellant of economic competitiveness. It has become imperative for nations to enhance employment skills by ensuring quality teaching in their educational institutions, since societies are concerned about quality to a greater extent now than ever before. International and national rankings and public assessments are the subject of attention, making the measurement of teaching quality challenging. The implementation of evaluation mechanisms to identify and foster good teaching practices can succeed, if the environment of higher education institutions considers the availability and importance of physical facilities as contributing to the conduciveness of the learning environment, which in turn, would affect student achievement. Owoeye (2000) and Ajayi (2002) stated that school effectiveness and school facilities are positively related. Since the aim of the proposed study is to examine the relationship between university prospectus claimed facilities and real physical facilities, this study will seek to find answers to the following research questions:

1. Is there a difference between university prospectus claimed facilities and real physical facilities?
2. What is the quality of available educational facilities in the universities?
3. What is the level of adequacy of these facilities?

The findings will attempt to determine whether the effort to spread higher education is suitably matched by the presence of educational facilities to assist the progress of student achievement.

Literature Review

It is generally acknowledged that good education requires good facilities. In this context, Omotayo, Ihebereme and Maduawesi

(2008) stated that quality education may be ensured with the provisions of satisfactory physical facilities. A lack of the same would negatively affect the educational activities of the institution leading to a decline in the overall quality of higher education. This is true when looking at the available physical facilities in Pakistan's public sector educational institutions where there is a lack of even the most basic physical facilities, such as furniture. It is a fact that educational institutions in the rural areas lack even rudimentary facilities of student chairs and desks. A lack of computers and calculators as learning aids, force students to resort to mental calculations or pen and paper methods which hamper learning.

Khan (2012) believed that excellent facilities are the fundamental elements for quality education programs and valuable for achieving objectives and improving the quality of education. Lyons (2012) expounded an explicit relationship between educational results and the physical attributes of buildings in educational institutions. To this it may be stated that in the underdeveloped world there are institutions without walls and learning takes place out in the open.

In another study, Fuller (1986) proposed that the quality of education is determined by the quality of the instructional experience. In this context, Muviria (1985) supported that the quantity and quality of teaching resources affect the performance of students. Further on the link between facilities and achievement, Gogo (2002) advanced that the quality of education and the availability of necessary teaching and learning materials and facilities are inextricably linked together. The quality of learner performance and the quality of education may be affected by the inadequacy of facilities for learning (Ayot, 1984). The above findings are supported by Maundu (1987) that all learning institutions should be furnished with adequate and appropriate learning materials. Teacher productivity and effectiveness is possible only if appropriate facilities are provided (Muthamia, 2009). Maundu (1987) also stated that the extensive variation in academic achievement results from the role of instructional resources.

Having established that facilities are a powerful determinant in educational outcomes, the provision of instructional facilities cannot be over-emphasized. Akande (1985) was of the view that learning is possible through interaction with the environment. Environment alludes to facilities which assist the progress of the learning outcomes of students. These include textbooks, audiovisual aids, educational technology, size and arrangement of classrooms, furniture, display boards and white boards (Farrant, 1991; Farombi, 1998). In this context, it can be said that student achievement in State Board examinations is always reflected by students belonging to privileged educational institutions where there is an abundance of support from infrastructure and physical facilities, which enhance the quality of teaching and learning.

Facilities comprise an important determinant in the functioning of an organization because they largely decide the smooth functioning of the educational institution and their adequacy and availability determine efficiency and productivity (Oni, 1992). Ajayi and Ogunyemi (1990) reiterated that facilities contribute to an increase in overall academic achievement. Facilities are identified as important determinants contributing to student achievement. These include libraries, classrooms, buildings for study and accommodation, laboratories, recreational facilities and instructional material (Hallak, 1990). In another view of what constitutes facilities, IES (2006) maintained that all physical and material assets which include properties, such as buildings and important infrastructure which form the “built environment” may be deemed as facilities. It is further stated that resources used to deliver quality education may be termed as facilities. Omotayo et.al (2008) further extended the description of facilities to include textbooks, electricity, seating facilities, laboratory facilities, technical and vocational facilities, and computers which are essential if quality education is to be provided.

Earthman (2002) added another dimension to the importance of facilities when he maintained that facilities are necessary for quality

assurance purposes and stated that a positive correlation was found between the provision of facilities and high levels of student achievement.

The findings of researchers cited in the review all corroborate each others' outcomes, thus it appears that physical facilities play an important role in teaching and learning, as well as student achievement. This makes this research effort worthy of investigation.

Research Methodology

Research design

The study is exploratory in nature, as well as observational. This approach was used since the scope of the problem was unclear and not clearly defined. In addition, secondary research of review data available in the university prospectuses had to be examined. The research topic is new in the context of Pakistani higher education, therefore, the investigator expects to discover ideas and gain insights which would provide a better understanding of the topic. The study also generated the interest of the researcher since it deals with an aspect of educational quality hitherto largely unexplored in Pakistan where there is very little expenditure on education infrastructure. It is of late that the importance of physical facilities is being felt as contributing to student achievement. In the Pakistani scenario, according to Hayward (2009) as cited in Wikipedia (2013), the Higher Education Commission began a series of major upgrades in several areas of physical facilities, namely information and communication technology, research support facilities, laboratories, and a noteworthy digital library claimed to be the best in the region.

Five well-reputed business schools were selected for the study. These business schools enjoy favorable HEC university rankings. The researcher used field observation based on a 20 point checklist which provides background data useful for corroboration, and document analysis which is grounded in a local setting and useful for exploration. According to Wolcott (2002) as cited in Hatch (2002) data analysis allows researchers to make sense out of qualitative data through the use of their intellectual capacities. These methods served to assess the evidence of real physical facilities as claimed by the

university prospectus. This small-scale study is interpretive since there is the personal involvement of the researcher investigating taken-for-granted facilities in the observed business schools in Karachi.

Observed business schools

All five business schools are located in District South of Karachi comprising areas of Clifton, Defence Society and Korangi. Primarily all five are business schools offering degrees in the Management Sciences; however, they offer other programs in other disciplines, such as Computer and Information Sciences, Media and Arts, and Engineering. As regards HEC rankings (2013), all five have been placed in the top 25 category. All five schools have their own campuses with two schools located on purpose built campuses. The fee structure, although claimed to be economical in some cases, was found to range between Rupees 65,000 to Rupees 85,000 per semester (Full Load). All the business schools had internship and placement departments facilitating students in their quest for internships and jobs.

Research tools/data collection instruments

The objectives of the study were achieved by a two-fold process.

First, an analysis of the prospectuses of five business schools was done to gather information regarding physical facilities provided as part of the educational infrastructure. The prospectuses were for the years 2012-2013 and were obtained from the observed university offices.

Second, a checklist comprising 20 items ranked on a 6-point Likert scale was used to gauge physical facilities through on-the-ground physical observation. The findings from the above processes provided information regarding “claimed” physical facilities and “real”

physical facilities. The items chosen for the checklist were based on prospectus claims, as well as what the researcher observed.

Ethical considerations

In order to avoid researcher bias during the physical observation of facilities, the researcher meticulously checked all items on the checklist before assigning a number on the scale. An assistant helped to record the data during this process.

Findings and Discussion

The field observation of physical facilities on the campuses of the five observed business schools included in the study, and the examination of their prospectus documents for 2012-2013, brought forward the real state of affairs in regard to physical facilities. The findings amply supported the findings of previous researchers that physical facilities are important for the teaching and learning process, and probably impact student achievement. This aspect was not a part of this research, however, it pointed out directions for future research in this area in the context of Pakistan where no research on the subject is adequately known to the investigator. To answer the first research question whether there exists a relationship between university prospectus based facilities and real physical facilities, it appears that there is a relationship because the prospectus is used to position the brand, that is, the particular university and also as a tool to advertise its services to the community by providing education. Attempts to provide real physical facilities were abundantly evident in the field observation of the campuses. To answer the second and the third research questions, the findings are presented here for all five observed business schools labeled 1 to 5.

1. Business School One prospectus is somewhat modest in its claims regarding physical facilities as the claims are limited to buildings,

computer technology, library, and transportation facilities. Passing reference is made to other areas listed on the checklist, with the exception of research and faculty which have been given a lot of attention and claimed as superior. However, field observation of physical facilities found it adequate in 13 out of the 20 areas mentioned on the checklist. It was inadequate in 1 area, i.e. Medical facilities which were not mentioned in the prospectus. Research and teaching methodologies which were claimed to be superior in the prospectus were found to be moderately adequate as were the sports facilities and administrative support.

2. Business School Two prospectus claims in the areas of faculty and IT were found adequate and matched the field observation. The prospectus claimed the curriculum to be in keeping with HEC guidelines and following British and American university practices. Transportation, medical, internship, sports and co-curricular facilities received some attention in the prospectus. In the field observation no facilities were found inadequate. Equal numbers of physical facilities were found to be marginally adequate and moderately adequate, of which research, teaching methodologies counseling, training job placement, administrative support, seminar activity and security arrangements received no attention in the prospectus but were moderately adequate.

3. Business School Three was the only one of the five in the study where the faculty was found to be highly adequate, although the prospectus did not claim as such. However, buildings, cafeteria and sports facilities were found inadequate, thereby reflecting that all-round development of students was not a priority for the institution. The latter two were not mentioned in the prospectus. Training was another weak area, as well as counseling, library, and administrative support. Library services were online only, as found through the prospectus review and field observation. In all other areas, the physical facilities were moderately adequate or adequate and in considerably fewer areas than Business Schools One and Two. Prospectus claims

in most areas were missing and it appeared that these were not important enough to be included in the prospectus. It is worth mentioning that there was no campus in the real sense, but three or four buildings had been procured to conduct academic activities.

4. Business School Four excelled in the areas of sport facilities, administrative support, seminar activity and security arrangements. The prospectus reported laboratory, library, cafeteria, transportation, internship, research and sports facilities, however, no coverage to important the areas of faculty, teaching methodologies, and curriculum was given in the prospectus. Research, library, cafeteria, and training facilities were found somewhat adequate in the field observation. All other resources were either moderately adequate or adequate, being of a lower level than the previous three institutions.

5. Business School Five was found lacking in all areas; however, prospectus claims were otherwise. It was not found inadequate in any area in spite of the fact that the prospectus failed to mention curriculum, research, teaching methodologies, training, internships, job placement, seminar activity and transportation facilities. Nearly all the facilities were either marginally adequate or moderately adequate. No facilities were found adequate or highly adequate in comparison with the other four business schools leading this investigator to assume this institution to be a small-sized endeavor. The prospectus itself was an excellent quality marketing tool.

The following table shows the points scale of the five business schools:

Business School	Inadequate	Somewhat Adequate	Marginally Adequate	Moderately Adequate	Adequate	Highly Adequate	Total
1	-	2	6	16	65	-	89
2	-	2	24	32	15	-	73
3	3	2	9	20	35	6	75
4	2	4	3	16	35	24	84
5	-	8	24	32	-	-	64

Limitations

The study is limited in its scope by the time constraint during the field observation of the institutions since officials were not comfortable with in-depth examination of IT/computer facilities, library facilities, administrative support, and curriculum areas. The researcher was asked to complete the field observation in the time allocated by the institution's administration. In addition, there was paucity of data available for the literature review.

Conclusion and Future Directions

The document analysis and field observations of the prospectuses and physical facilities on the campuses of the five business schools suggest that first of all, there is definitely awareness of the importance of physical facilities in the minds of education institution owners. Secondly, varying degrees of efforts to provide physical facilities were evident. Thirdly, physical facilities were not found highly adequate in any institution. Fourthly, it may be assumed that expenditure for the provision of physical facilities varied from institution to institution. Finally, provision for research, teaching methodologies, curriculum, training, seminar activity and job placement did not receive the amount of importance that they merit.

To conclude, it may be stated that the level of availability and level of adequacy of educational facilities appear to be moderate since the investigator is of the view that there is no philosophy of education infrastructure design in the minds of Pakistani higher education planners. The institutions within the purview of this research belonged to the private sector and whatever level of educational facilities came to light is somewhat commendable. If the Pakistani scenario is to be taken into account, the low allocation to education spending does not allow for development of physical facilities in state institutions tending toward state-of-the art. It is recommended that a further study should be conducted including all universities recognized, listed, and chartered by the HEC to gauge the real position of physical facilities in the context of Pakistani higher education keeping an eye on the area of faculty and the contribution of physical facilities towards university rankings.

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GENDER DIFFERENCES IN SELF-ESTEEM AND PEER RELATIONS AMONG UNIVERSITY STUDENTS

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Abstract

The main objective of this study was to explore the differences in peer-relations and self-esteem across the gender among the university students. Further, to examine the degree of level and relationship between peer-relations and self-esteem among the students. Male and female university students (N = 100) from Government College University and Agriculture University Faisalabad were engaged for the study sample. All the participants completed the Index of Peer Relations and Index of Self-Esteem. The findings revealed that male students were high on self-esteem and on peer relations as compared to female university students. Limitations and suggestions were also discussed at the end of the study.

Keywords: Self-esteem, Peer-relations, Gender, Students.

JEL Classification: Z000

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Introduction

Peers gradually play a vital role in the life of the youth during adolescence. Throughout this period, adolescents initiate to develop attachments which are more warming, special and more persistent as compared to the early years of their life. In many ways these relations are critical components of social, emotional and cognitive development. These relations create an atmosphere of mutual acceptance and self-regard in which they exercise and adopt social skills required for future success (Brown, 2004, p. 371).

Self-esteem is “a person’s appraisal of his or her value” (Leary & Baumeister, 2000, p. 2). This is generally regarded as a composite phenomenon and it is considered with positive development of the youth. Developmental Psychologists argued that the adolescence is specifically a growing period of the foundation of self-esteem. Rosenberg, Schooler and Schoenbach (1989, p. 1008) described self-esteem as “the totality of an individual’s thoughts and emotions regarding self”. Several developmental studies have explored that self-esteem plays a vital role in encouraging mental and physical health. Moreover, it also prevents behavioral and emotional problems such as aggression and delinquent behavior. (DuBois, Burk-Braxton, Swenson, Tevendale, & Hardesty, 2002, p. 1581 ; DuBois, Burk-Braxton, Swenson, Tevendale, Lockerd, et al., 2002, p. 829; Trzesniewski et al., 2006, p. 384).

The significant positive relationship between self-esteem and peer-relations is essential for long learning process and professional growth of the adults in every society (Sluijsmans et al. 2001, p. 167). Many studies highlighted the rising support for the healthy presence of these two constructs in the adolescent development (Hoover & Carroll, 1987, p. 184; Falchikov & Goldfinch, 2000, p. 293, and Langan et al. 2005, p. 24). There is a growing body of literature fostering the significant relationship between peer-relations and self-esteem in adolescents (Greenberger, Chen, Tally, & Dong, 2000, p. 213).

The significance of peer-relations for different phases of adolescent development has broadly been acknowledged. Many studies have revealed that peers have a strong consequence on the

accomplishment of dynamic developmental tasks in that period of life like autonomy, independence and building up positive self-concept. Koestner and Losier (1996, p. 471) have stated that there is a positive relation between autonomy development and attachment to friends while Fletcher, Darling, Steinberg, and Dornbusch (1995, p. 304) have described that adolescents who act proficiently in their attachments also act more independently in other social perspectives. Sincere and mutual relationships provide an equal opportunity to share activities, experiences, and emotions (Noom, Dekovic, & Meeus, 2000). This mutual cooperation gives young people confidence in their goals and actions.

As discussed above in the importance of the relationship between peer-relations and self-esteem, this research is based on Bowlbys' (1982, p. 67) attachment theory. This theory underlines that during infancy period, the children begin to develop cognitive models of relationship with their parents and other close members of the family. These lovable, competent, effective and truthful relations satisfy the biological, social, emotional and security needs of the growing children. According to attachment theory, in later life they are ready to explore the new environment and learn more social skills for better adjustment. This current study is an endeavor to examine the level of relationship between peer-relations and self-esteem across the gender in the perspective of attachment theory.

Peer-Relations

Peer-relations and friendship play a vibrant role in the healthy and balanced growth of adults. Kirchler, Palmonari and Pombeni (1993, p. 131) have described the dynamics and the assembly of a peer group comprises of the members of the same age having similar interests and recreations.

Tangible social relations are the main features of adolescence because most of the time the adults participate in the activities of the same interest without any observation. They make new contacts and reinforce the standing connections. Brown (1990, p. 79) pointed out that the members of peer group share their thoughts, sentiments and feelings with one another. They agree and disagree on different

opinions about the social, moral, political and other issues of the same interest. This situation of acceptance and friendship increase self-esteem and well-being (Parker & Asher, 1993, p. 615). The significance of peer-relations in the process of socialization throughout the early childhood and all over the adulthood is broadly recognized.

Peer-relationship and friendship has extraordinary value for better psychological and emotional adjustment during adolescence. Adults who have some difficulties in developing and sustaining the peer-relationship are vulnerable to violent and hostile behaviors (Newcomb, Bukowski, & Pattee, 1993, p. 111). Woodward and Fergusson (2000, p. 241) have also explored the occurrence of low academic success and joblessness among adults in their future life. However, numerous studies indicated the positive inferences of high ratio of academic achievement (Risi, et al, 2003, p. 355; Wentzel, Barry, & Caldwell, 2004, p. 198), and high self-esteem and optimistic self-image among adults (Azmitia, 2002, p. 181).

Self-Esteem

Self-esteem is considered as the most standard construct in psychology. It is used as a predictor, outcome and mediating variable in researches (Marsh, 1986, p.1229). Rosenberg (1965, p. 71) stated that self-esteem is the positive and the negative assertiveness of an individual about the self. It is the estimated value of a person about his or her optimistic and pessimistic abilities (Roessler, 1978, p. 155).

This aptitude has a great significance in the temperament of an individual for his daily functioning. Taylor and Brown (1988, p. 198) have discovered the positive significant relationship between self-esteem and social support. The positive effects of this association like academic achievement, well-being, decision making and self-efficacy are highly correlated with each other. There are many related words to explain the meanings of self-esteem like self-worth, self-respect, self-acceptance, self-appraisal, self-love, self-satisfaction and self-confidence (Wells & Marwell, 1976, p. 105). Self-esteem is the degree of optimism of an individual in which he/she believes (Blascovich & Tomaka, 1991, p. 147). Adults who sustain the positive self-concepts about their personalities with higher self-esteem enjoy

a stable psychological functioning in all fields of life (Dixon Rayle, 2005, p. 757).

Self-Esteem and Peer-Relations

There is a growing concern of social researchers regarding the significant role of peer- relationship and self-esteem for the psycho-social development during adolescence. Bandura (1997, p. 45) underlined the significance of peer-relations as an intoxicating power in the escalation and justification of cognitive abilities and social skills. The positive correlation between self-esteem and peer-relations has an overall encouraging impact on the social and academic learning environment (Hartup, 1983, p. 152). The lower level of self-esteem and poor peer-relationship has negative consequences for the adults (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005, p. 331). Due to this precarious condition, there is a tendency of maladjustment and aggression among adolescents (Berger, 2007, p. 114). A balanced approach of these two constructs leads the adults towards strong mental health while in the opposite direction they can face various psycho-social and emotional problems at present and in the future (Nishina, Juvonen, & Witkow, 2005, p. 42).

Gender Differences in Self-Esteem and Peer-Relations

Numerous past studies indicated the presence of high self-esteem in male as compared to female (Kling, Hyde, Showers and Buswell, 1999, p. 481). The results have also revealed that males are high during the adolescence period on self-esteem and peer-relations due to the sociable aspect of their personalities from their counterparts. Kearney-Cook (1999, p. 48) examines that male adolescents have progressive feelings regarding self-concept and durable social ties than female adolescents. A study about gender differences regarding self-esteem and mental health in adulthood reveals the results that the female has a low level of these two domains as compared to male (Bolognini, Plancherel, Bettschart, and Halfon, 2002, p. 237).

Many researchers have raised the question about the differences in peer-relations in the perspective of gender (Maccoby, 1998, p. 45; Rubin, Bukowski, & Parker, 1998, p. 647). In the formation of

peer-groups for the purpose of friendship and social activities, male and female are quite opposite due to personality traits, mannerisms and aptitudes (Caspi & Roberts, 2001, p. 53; Roberts et al., 2008, p. 383). Normally males have close interaction and collaboration with all the group members as compared to females (Fabes, Martin, & Hanish, 2003, p. 925). Similarly the male organizes large groups for communication and reciprocal collaboration than the female (Ladd, Dan, & Anna, 2008, p. 117). It has been established that the male intermingle more frequently with each other in the group and in public as compared to the female (Martin & Fabes, 2001, p. 439; Fabes, Martin and Hanish, 2003, p. 927).

Hypotheses

Keeping in mind the previous literature the following hypothesis are formulated:

- H1.** Peer-relations will be high in male university students as compared to Female university students.
- H2.** Self-esteem in male university students will be high as compared to female university students.

Purpose of the Study

Self-esteem and Peer-relations are very significant constructs and have a meaningful position among young adults. Therefore, the principal purpose of this research article was to find out the gender differences in peer-relations and self-esteem among the university students as well as to investigate the relationship between peer-relations and self-esteem.

Method

Sample

The sample of this study was comprised of one hundred university students (N= 100) registered in different graduate and postgraduate degree programs. Both male (n= 50) and female students (n=50) were included in the sample and the age range of the participants was between 22 to 30 years. The present study hired the survey

design whose purpose is to collect detailed and honest information from the participants of the study.

Instruments

Index of Peer Relation

Index of Peer Relations (IPR) (Hudson, 1982, p. 64) was administered to the sample for data collection. This scale has 25 items. In this study the IPR used as 5-point Likert-scale. The response choices including: 1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = a good part of the time; 5 = all of the time.

The Cronbach's alpha (α) reliability for this scale is 0.88 ($\alpha = .88$).

Index of Self-Esteem

For the purpose of data collection about self-esteem the Index of Self-Esteem (ISE) (Hudson, 1982, p. 72) was used. The ISE has twenty-five items adopting the 5-point Likert-scale for scoring. Hudson (1982) found the coefficient alpha (α) reliability 0.93 ($\alpha = .93$) but in this study the reliability (α) is 0.70 ($\alpha = .70$). The response choices including: 1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = a good part of the time; 5 = all of the time. High score direct low level of self-esteem.

Procedure

The survey method was implemented in this current study and purposive sampling technique was used for the purpose of data collection. The data were collected from a sample of only one hundred university students from Faisalabad. All the students were approached during the free periods and break time. Before administering the instruments, permission was taken from the administration and some instructions were given to the participants. Following the ethical issues, the participants were given a briefing about the objectives and the signification of the study. Then informed consent was taken from all the participants. Demographic information sheet was also applied.

Results

This study was set out to examine the gender differences in self-esteem and peer- relation among university students. Descriptive statistics followed by alpha reliability was measured. Person correlation and *t*- test were used to test the hypotheses.

Table 1.

Descriptive statistics, Alpha reliability coefficients, and zero-order correlation among study variables (N = 100)

Variables	<i>a</i>	<i>M</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>	<i>r</i>
Self-Esteem	.70	64.69	8.89	42	90	
Peer Relations	.88	59.45	16.17	27	94	.42*

**p*<.01

The results showed that both variables have satisfactory alpha reliability. Zero-order correlation indicated that self-esteem has a positive relationship with peer relations among university students.

Table 2.

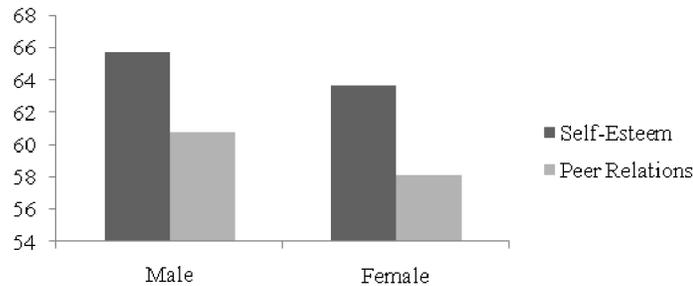
Mean, standard deviation and t-values for male and female adolescents on self-esteem and peer relations among university students(N = 100)

Variables	Male (n = 50)		Female (n =50)		<i>t</i> (98)	<i>p</i>	95%CI		<i>Cohen'sd</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
Self-Esteem	65.72	8.91	63.66	8.86	1.15	.05	1.47	5.59	.23
Peer Relations	60.78	15.77	58.12	16.61	.82	.00	3.77	9.09	.26

Table 2 shows the mean, standard deviation and *t*-values for male and female adolescents on self-esteem and peer relations among study variables. Results revealed that male students significantly scored high on self-esteem and peer relation as compared to female university students.

The figure shows gender differences in self-esteem and peer relations among students. The results indicated that male were high on self-esteem and peer relations as compared to female students.

Figure 1.
Gender differences in Self-Esteem and Peer Relations among university students (N = 100)



Discussion

The growth of self-esteem begins at the early developmental stage of a child's life. This process is generally affected during adolescence. During adolescence and adulthood, peer-relations have a significant role in increasing and decreasing the self-esteem. Steinberg (1999, p. 67) precisely described that strong peer-relations are the essential contributors to the adult's high self-esteem. Others studies explained that the role of parents' support and healthy relationship with other close relatives are significantly linked with high self-esteem among adults (Buri, 1987, p. 585; Cashwell, 1995, p. 86). With regard to adolescence, earlier investigations of self-esteem growth have produced unpredictable results. Numerous studies have described an increase in self-esteem (Huang, 2010, p. 258; Mullis, Mullis, & Normandin, 1992, p. 55; Pullmann, Allik, & Realo, 2009, p. 33; Twenge & Campbell, 2001, p. 331), while other studies have stated that self-esteem does not change (Chubb, Fertman, & Ross, 1997, p. 117; Young & Mroczek, 2003, p. 591) or even decrease (McMullin & Cairney, 2004, p. 82; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002, p. 427). Several longitudinal studies advocate that self-esteem increases during young adulthood (Galambos, Barker, & Krahn, 2006, p. 355; Huang, 2010, p. 254; Orth, Trzesniewski, & Robins, 2010, p. 652).

The results reveal that there is a significant positive relationship between peer relations and self-esteem (i.e. table 1). The

current findings are in line with previous research (Fan, 2008, p. 56; Bolger, Patterson & Kupersmidt, 1998, p. 1177). Positive association with each other is necessary for individuals during their different life stages. The role of the Peers has vital significance in all developmental stages of personality. Therefore durable peer relations may lead to high self-esteem or in other words high self-esteem may lead to strong peer relations.

The 1st hypothesis “male university students will be higher on self-esteem as compared to female university students” is supported in the present research. A person’s sense of self concept has variety of beliefs in his childhood. The process of socialization sets the patterns of thinking and feelings of both sexes. Males and females have distinctive concepts about each other. Pipher (1995, p. 120) investigated the female issues of self and body images in a classic way. This thinking pattern leads them from some psycho-social and emotional problems. Social, religious and moral values have a stunning impact on the self-esteem of both sexes. Males have less effect as compared to females due to personality traits (Baumeister & Hutton, 1989, p. 564).

Numerous results of meta-analysis about the gender differences have underlined that the males have a high level of self-esteem and well-meaning peer-relations among themselves as compared to the females (Kling, Hyde, Showers and Buswell, 1999, p. 489). The males have more freedom and liberty, physical strength, refined capabilities and skills as compared to their counterparts also affect the self-esteem and peer-relations. Biernat and Manis (1994, p. 16) described the differences in mental and physical abilities of male and female. On the basis of physical strength and fast athletic abilities the males are more powerful and have more speed than females. These evidences lead to low self-esteem in the female (Biernat & Manis, 1994, p. 17).

The 2nd hypothesis “male university students will be higher on peer-relations as compared to female university students” is supported in the current investigation. Two Culture Theory (Maccoby, 1998, p.67) explains the gender differences in peer-relations in different cultures. There is a unique difference in the playing styles of male and female. This attitude creates a distinctive way of life regarding their

social environment (Maccoby, 1998, p.71). Males and females have some similarities in their various behaviors but there exists some dissimilarity too.

Male talk and maintain close contacts with one another broadly and focus themselves on ignoring the concerns of others than the female. Males are also more assertive than females in conflict situations (Maccoby, 1998, p. 48; Maltz & Borker, 1982, p. 205). Besides this males also participate in challenging jobs and take risks (Thorne & Luria, 1986, p. 180).

Conclusion

This study does not represent the first and final attempt to examine the relationship between self-esteem and peer-relations among the university student. In this study, we have investigated the question, is there is any significant or non-significant relation exists between these two constructs with gender difference? On the basis of the findings of this current research, there are two key points that can be used for the conclusion of this research paper. The findings disclose that there is a positive significant relationship between self-esteem and peer-relations. The findings also uncover the gender differences that male students are high on self-esteem and peer relations as compared to the female university students on these two variables.

Limitations and Suggestions

Like other correlational studies, this research also encountered some limitations. Firstly, the sample of this study consisted of only one hundred students from two universities and did not represent the whole population analytically. Due to this reason of small sample size, the findings limited the ability to generalize the results. The results can be generalized by increasing the sample size. Secondly, the sample was collected from only two universities which also affected the ability to generalize this study. To avoid this issue, sample should be taken from other universities. It is also suggested that other independent and dependent variables i.e. Self-efficacy, Self-control, Academic Motivation, Academic Stress, Psychological Well-being and Academic Achievement can also be included with these two constructs to examine the association and impact among each other.

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THE EFFECTS OF PRICE LIMITS ON CONTROLLING STOCK MARKET VOLATILITY: A CONTROVERSIAL ISSUE

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Introduction

Human beings have a tendency to react to events or news. The behavior of being happy or sad leads them to take action in different manners. Some act in a rational way whereas others react in hastiness which contributes to good or bad consequences. Behavioral finance deals with the combination of economics and human psychology which analyzes how and why investors react to news or events. Market participants' decisions are based on the new information, which affects the market environment. This behavior forms the way for the trend of hot stocks which create market bubbles.

To protect the market environment from extreme situations which may lead to market crash, regulators introduced controlling mechanisms named "*circuit breakers*" in equity and futures market. Circuit breakers come in various forms and "*price limits*" are one of these forms. Price limits are exchange-authorized restrictions which are considered to be an effective tool in controlling extreme volatility of financial market and price oscillations of securities when the market is under stress. Price limits are widely used all around the world and significant segment of world's capital markets is influenced by price limits. Price limits halt trading activity for a limited period in order to calm investors and provide time in which market participants can reassess the new information. Investors can make new decisions to avoid their losses according to the new information. In spite of the existence of circuit breakers, stock market has crashed many times which has led to discussions in policy circles about the application and the effectiveness of trading limits.

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Over the last two decades, a lot of research has been done on whether price limits can provide informational and cooling-off period to panicked investors or not. Financial researchers find that price limits do not control market instability and spill over the volatility on subsequent days, delay the price of a stock from coming back to the equilibrium level, interfere with trading activity and have a magnet effect which causes the stock prices to hit price limits. These issues are considered to be severe cost rather than a benefit. The negative issues about the effectiveness of price limits has led to a debate between the proponents and the opponents on whether price limits are an effective tool in controlling volatility or not. Most of the existing literature does not provide any concrete agreement in resolving this controversy.

The key goal of this review is to ascertain whether price limits are an effective form of circuit breakers or just an imposition of exchange regulators. Section I illustrates the history of stock market crash and the evolution of circuit breakers and their forms, mainly price limits. Section II illustrates the debate between proponents and opponents on the usefulness of price limits and examines the benefits/costs of price limits and why regulators think they would be a good mechanism in controlling volatility. Section III concludes with the main findings and lays out extensions that could add importance to the field.

Historical Event of Stock Market Crash

In 1929, the US stock exchange hit an all-time high as individual shareholders borrowed on margin to advance in stocks while banks had heavily invested in stocks. On 29th October, the stock market crashed by 11.5%, bringing the Dow Jones Industrial Average (DIJA) 39.6% off its high². Securities and Exchange Commission (SEC) was formed following the stock market crash; the Glass-Steagall act was passed³. The Federal Deposit Insurance Corporation (FDIC) was set

² The reasons for the stock market collapse were: overvalued stocks, low margin requirements, and aggressively increased interest rates by Fed on broker loans and poor banking structures. Overall, 14 billion dollars of capital vanished during the stock market crash.

³ Glass-Steagall act restricted commercial banks from participating in investment banking activities.

up in 1933, to protect individual bank accounts for up to \$100,000. In 1987 in USA, 19th October was named “**Black Monday**”, the day on which stock market crashed and Dow Jones Industrial Average (DIJA) fell by 508 points or 22.6% which was the biggest one day drop up to that point⁴(Schwert, 1989). Roll (1989) explained that out of 23 stock markets 19 turned down by 20%. This October 1987 crash was the first major worldwide crash and is a prime illustration of panic in stock markets⁵. During 1987 crash, 0.5 trillion dollars of wealth was vanished. After the 1987 crash, many questions rose regarding the causes of market crash and different ideas were established to redesign the market microstructure in order to protect the financial market from high stock market volatility (Phylaktis, Kavussanos, & Manalis, 1999). Therefore, financial market crashes around the world followed by this increasing trend in volatility of stock returns seek the attention of regulators, investors and academics (Bildik & Elekdag, 2008).⁶ It was in the wake of this crash that regulators in the US sought to create mechanisms that would reduce market volatility and circuit breakers were launched.

Origin of Circuit Breakers

In 1988, the US Government’s Task Force Report, New York Stock Exchange (NYSE) and the Chicago Mercantile Exchange (CME) imposed different policies and rules to control volatility in stock returns. These rules introduced circuit breaker mechanism, which required trading halt on both stock exchanges, (NYSE) and (CME), for one hour, should the (DIJA) fall more than 250 points in day, and halts for two hours should it fall more than 400 points. These policies were meant to sanction an orderly shut-down and subsequent orderly opening of trading in order to make the market more disciplined. Therefore, the concept of circuit breakers was introduced and supported by members of Brady Commission, who believed that these

⁴This was a drop of 36.7% from its high on 25th August 1987 when the Dow hit a record 2722.44 points.

⁵ The reasons for the stock market crash were: no liquidity and the stocks were overvalued. Another reason for the stock market crash according to financial analysts was the software problem of program trading of derivatives securities and index futures.

⁶After this major crash, new margin requirements were commenced in order to lower the volatility of stocks, index futures and stock options. New computer systems were brought in to increase the effectiveness of data management, productivity and accuracy (Lauterbach & Ben-Zion, 1993).

tools would mitigate the impact of stock market movements to protect the market infrastructure from damage (Presidential Task Force on Market Mechanism, 1988).

The main aim behind regulatory policies is that when the stock market is crashing, due to panic or other irrational reasons, circuit breakers should be activated. These circuit breakers help maintain market discipline by halting or slowing down trading activity. Similarly, when stock prices on next trading day are falling from a particular amount from the preceding day's closing price, circuit breakers can help stop chaotic stock price movements. Therefore, stock traders can get sufficient time to re-examine the conditions and reinstate confidence in market prices and make rational decisions in order to reduce the stock market volatility (Harris, 1998; Kim & Rhee, 1997).

Circuit breakers were introduced and implemented by the exchanges in effort to protect the market and investors from future extreme market situations (Ackert, Church, & Jayaraman, 2000). NYSE implemented trading limits as a circuit breaker after October 19, 1988 but they are occasionally activated (Goldstein & Kavajecz, 2004). However, in October 1997, Asian market crashed and other political events like September 11, 2001 brought additional attention to bear on the efficiency of trading limits instruments which were modified again by the NYSE in 1997 (Chen, Rui, & Wang, 2005).

Types of Circuit Breakers

To control the volatility of stock market, different types of circuit breakers were introduced to make the markets efficient and disciplined. *Trading halts* is used when prices have moved or will about to move by some pre-specified amount. Trading restarts after some time interval. *Price Limits* entail all trade prices to be within a given price range. If traders are reluctant to bargain prices within the limited range, trading will stop. *Transaction taxes* restrict trading by taxing it. *Margin requirements* and *position limits* restrict the size of positions that traders can accumulate. Finally, *collars* restrict access to computerized order submission systems. These mechanisms help in restraining trading activity one way or another (Harris, 1998; Moser, 1990). Up till now many amendments have been made in order to make circuit breakers more effective in controlling the market environment

(Belcher, Ma, & Mallet, 2003). According to Kim et al. (2008), the basic argument in support of circuit breakers was that these regulatory tools provide an opportunity to the investor to assess normal information in times of high uncertainty. Circuit breakers can be in the shape of price limits or trading halts and which types of circuit breakers are better is still ambiguous.

Price Limits

The most commonly used form of circuit breakers is price limits and the empirical literature is centered on this. Price limits are exchange-authorized restrictions on trading in order to maintain the volatility level when market is under stress. This is the most commonly used circuit breaker which can aid the stock market from crashing due to panic behavior of investors (Kim & Yang, 2008). Price limits are mostly daily price limits and are based on percentages like +5% (cap) and -5% (floor). When market participants are unwilling to confine prices within the price limit range and if the stock price hits the limit, trading will stop for that particular security. Although daily price limits allow investors to trade at the limit price they are also given the choice of not trading as they can get time to reevaluate the market information (Kim et al., 2008). According to Kim and Yang (2008), price limits normalize the “*magnitude*” of the change in price that can happen for a given stock during a single trading session.

Types of Price Limits

As the price limits also have two types. One type is *tick size rule* and another type is *trading session limit rule*. Tick size rule specifies the least acceptable price change from one trade to another. Tick size fluctuates with the security price. It explains the change in the stock price in terms of amount. Tick sizes and tick values are components of the contract requirements for all financial markets. Futures markets frequently have particular tick sizes, but stock markets have a tick size of 0.01, which is equal to \$0.01 for US stock markets (Tooma, 2005). Whereas, trading session price limit rule determines the most permissible percentage change in stock's price during any trading session.

Implementation of Price Limits

Daily price limits are imposed on many financial asset markets. In the US future markets, price limits have been the common behavior of commodity futures contracts since 1925, however, now they are implemented on financial futures contracts as well. In Asian and European equity markets, price limits are most common circuit breaker. They are implemented in Japan, Korea, Malaysia, Netherlands, Spain, Austria, Belgium, France, Italy, Switzerland, Taiwan and Thailand (Tooma, 2005). Hence, a major portion of the world's capital markets is influenced by price limits mechanisms (Kim & Limpaphayom, 2000). The price limits in major stock markets range from 5% to 60%. In Austria, Egypt, Finland, France, Luxembourg, and Portugal and in Korea price limit is $\pm 15\%$. In Belgium, price limit is $\pm 5\%$ to 10% , China and Turkey, $\pm 10\%$, Japan $\pm 10\%$ - 60% , Malaysia -30% (downside limit only), in Taiwan price limit is $\pm 7\%$ whereas in Thailand, its $\pm 30\%$ (Tooma, 2005).

The Effectiveness of Price Limits, a Controversial Debate

Major financial market crisis in last two decades was due to exaggerated volatility in the returns on financial assets. This inflated volatility was found to be the main interest of participants and regulators. The reason behind this 'excessive' volatility in the returns on the stocks was due to the unexplained factor which was found in the "*uncertainty of the future real dividend*" (Phylaktis et al., 1999). To understand the causes of volatility factor, regulators imposed price limits on financial assets. According to regulators of exchange, price limits are necessary factor in controlling the "excessive speculation and mob psychology" on pricing process of the stock (Phylaktis et al., 1999).

Greenwald and Stein (1991) also believed that if price limits had been imposed at the time of market crash in 1987, prices would not have fallen as drastically. The cause of 1987 market crash was the panic behavior of the traders due to lack of information, which caused extreme volatility. Since the primary role of circuit breaker should be to re-inform market participants, circuit breakers would have been the perfect remedy.

According to market regulators, price limits and trading halts provide an opportunity to market participants to access normal information transmission when there is instability in stock prices. Most of the world's stock markets have some obstructing tools to normalize trading activity in order to make security prices be traded close to their fundamental value (Nath, 2005). Hence, to control the excess volatility in stock prices, price limits are active in stock exchanges worldwide.

The mechanisms of price limits are a central matter in the study of monetary market microstructure, which have attracted the attention of traders, regulators and academics. Many discussions and amendments have been made in policy circles to prevent volatility factor by using price limits on stock indices. Despite the strong presence of price limits worldwide, there is insufficient information and research available regarding the effectiveness of price limits on volatility (Bildik & Elekdag, 2004).

Researchers have studied the effect of price limits as a circuit breaker in different stock exchanges mainly in the U.S. futures and non-U.S. equity markets in order to ask two main questions (Tooma, 2005):

- I. Do price limits really help in reducing market volatility?
- II. Do they ease the investor's overreaction?

Proponents claim that during major price changes, price limits and trading halts help in breaking down the transmission of information between traders and the exchange (Phylaktis et al., 1999). Proponents also advocate that price limits can act as a partial replacement for margin requirements because price limits potentially bound the information accessible to the losing party and inform the losing party about the degree of its losses at the time it is essential to make the daily payment (Nath, 2005). Proponents also argue that trading limits may reduce credit risk and decrease unfavorable trading strategies by clearly recognizing the markets which have a limited ability to absorb massive one-sided order flow (Brady Commission, 1988; Nath, 2005). The main aim of price limits is to lessen the major loss of financial assurance by offering investors a facilitating time to

settle down, reassess the market condition and evaluate new information.

Do Price Limits Offset “Panic” and “Overreaction” in Financial Markets?

Advocates of trading limits illustrate many advantages of having such rules in market place (Nath, 2005). According to the regulators, the main reason for implementing price limits is their two main attributes that is, “*informational hypothesis*” and “*overreaction hypothesis*”. These two factors of price limits make the prices of the stock revert to equilibrium level as price limits guard traders from their own carelessness in decision making process after the event or news (Nath, 2005). Thus, by implementing trading limits, markets participants get some time in which they streamline their goals and, if required, change their actions (Nath, 2005).

Informational Hypothesis

In informational hypothesis, the volatility and true equilibrium price is determined by market information where all traders have access to and practice new information. In the existence of price limits, if the equilibrium price of stock exceeds the current day’s price limit band, the price will hit the limit (cap or floor) on a trading day and trading will stop for that day, and remain halted unless the stock price starts moving back towards price equilibrium level. Hence, new price limits would be set in subsequent periods in order for the price to move towards equilibrium without changing any stock returns. These price movements of stock towards equilibrium price ensure the strong correlations of stock returns (Phylaktis et al., 1999).

Overreaction Hypothesis

Phylaktis et al. (1999) described the overreaction hypothesis by considering a market with a different structure, where traders do not have access to new information and are unable to process it. When new information appears, traders have a tendency to overreact to the new information and act irrationally. The reason for this panic behavior is to cover their positions and buy or sell orders, if the new information is good or bad. This behavior causes the stock prices to

react unpredictably. Since patterns of stock prices are irregular, price limits are activated and tend to hit the price limits. These price limits offer additional time to investors to assess new information and reformulate a new trading approach. Therefore, for the period of assessment, market calms down which results in less volatility when the stock price is on hold. This period is known as a “*cooling-off period*”. Nath (2005) explained the concept of overreaction hypothesis by stating that stock prices were often directed in the wrong trend and would eventually reverse when the communication between specialists and traders was brought into sync.

On the other hand, opponents claim that price limits are a severe cost exceeding benefits. The main issues related to effectiveness of price limits are “*volatility spillover*”, “*delayed price discovery problem*”, “*trading interference*” and “*magnet effect*”. Opponents also believe that price limits have no effect on volatility and induce more problems which affect the environment of the stock market and behavior of the market participants.

Do Price Limits Facilitate Price Discovery Process?

The first issue which was raised against the price limits by opponents is whether price limit slow down the price discovery process. Opponents state that price limits hang on the stock prices to reach their equilibrium level when the stock price hit the limit. Opponents named this first issue “*delayed price discovery hypothesis*” which was the most common objection against price limits. Price limits do reduce volatility on the day when stock price hit the limit but on the other hand price limits simply delay the price adjustment process (Nath, 2005). Price limits are basically the upper and the lower bands of stock prices and trading usually halts when the stock prices hit the limits until the limits are revised on a trading day. This scenario creates interference with the price discovery process which prevents the stock from reaching their equilibrium price for that day and makes the stock wait for a subsequent trading period, usually the next day, to continue toward its true price. As the price limits are triggered, stock prices experience price continuation after the limit hit day rather than coming back to the equilibrium level (reversals) proving that price limits delay the prices in coming back to their equilibrium level which leads to the fact that price limits examine price reversals in the context of over reactive behavior (Ma et al.,

1989a, b). Hence, opponents of price limits consider them a severe cost (Kim & Rhee 1997; Lehman, 1989).

Do price limits restrain stock price volatility?

The second issue regarding the effectiveness of price limits is whether they really control stock price volatility. Opponents believe that price limits may restrain volatility on the day when stock hits the price limit. After the limit-hit day, because of limit hit moves, price limits can induce volatility to spread out for longer time period and simply “*spill over*” into subsequent days. This is known as volatility spillover hypothesis (Kim & Rhee, 1997; Nath, 2005).

Do price limits interfere with trading?

Another issue which is found in the implementation of price limits in market system is “*do price limits interfere with trading?*” Opponents consider this factor a costly drawback of price limits. They believe that price limits cause hurdles to the clearing mechanism. This hurdle in trading mechanism is named a trading interference hypothesis. When the stock prices hit the limits; price limits halt the trading which makes the stock less liquid and cause intensified trading activity on the subsequent days. Thus, on the following days, frantic investors buy or sell their stocks at unfavorable costs or patient investors wait for a few days to reach the prices at the equilibrium level which help in correcting the order imbalances. Therefore, in both cases, trading volume will be on higher side on the following day of price limit-hit days and make traders unable to either liquidate or take up their positions in order to hedge and control risk in their own accounts books efficiently (Kim & Rhee, 1997; Lauterbach & Ben-Zion, 1993; Nath, 2005).

Do stock prices move towards limit-prices? (Magnet Hypothesis)

Another main issue surrounding price limits is whether stock prices move towards price limits. Price limits can increase trading volume and price variability due to the expectation of upcoming trading limits, which in turn, advances the execution of market participants’ trading activity. This advanced execution of trading, which causes the traders to approach the price limits is termed the magnet effect and

has a tendency to be “*self-fulfilling*” (Kim, 2001; Subrahmanyam, 1994). According to Nath (2005), market participants would run to cover their positions through active trading as they were fearful of being locked into adverse positions. Consequently, “*the fear of potential illiquidity in their positions*” would cause them to rush into the market, which would increase the volume on one side of the market and thus accelerate the stock prices to move towards a price limit which is known as “*magnet effect hypothesis*”.

With respect to different studies done on circuit breakers and their mechanisms, opponents find price limits a severe cost rather than a benefit. As price limits are activated, price volatility increases rather than reducing as price limits postpone the price discovery process, and shrink the market liquidity and cause market efficiency to deteriorate (Kim & Rhee, 1997; Lauterbach & Ben-Zion, 1993). Opponents believe that price limits are just an imposition of rule given by stock exchange officials which have severe effects (Kim, 2001). Moreover, opponents of price limits also state that, in thinly traded securities, trading limits could be used as a manipulative tool by “*big hands*” in order to make abnormal profits (Nath, 2005) as big hands can move forward a stock price to its daily limit for some sessions. This could magnetize many uninformed traders by giving them the false impression that price could keep on hitting price limits. This act done by big hands sitting in the stock exchanges could increase volatility as a result (Phylaktis et al., 1999).

Circuit breakers, with all their multi-dimensional intricacies, have made investment researchers curious after they were introduced and unfortunately there is no consensus on their effectiveness. Up till now, most studies have not been helpful in resolving this matter (Tooma, 2005). Price limits can have substantial effects upon stock markets. Their effectiveness can only be checked when the market is in extremely volatile condition. Is this effect good or bad for the market? This will remain a question because trading limits only work in extreme condition; and without extreme volatility it is not viable to validate the effects on the market (Harris, 1998). Thus, whether these outcomes are positive or negative is still debatable.

The reasons for little evidence on the effectiveness of price limits on market volatility are unsatisfactory because there is no proper

method to discover the effects. It is pointless to analyze the effects of price limits on market volatility when the market is restricted by price limits, because price movements would be trimmed at the price limit. Therefore, extreme volatility goes undetected due to censored data, and most measures of volatility are underestimated and/or ambiguous (Kim, 2001).

Regulators need to have more information regarding the effectiveness of circuit breakers in order to make optimal decisions about whether to apply circuit breakers or not. If regulators really need to apply these at the time of any uncertain event, they should know which form of circuit breakers should be used (Tooma, 2005).

Conclusion

Current financial and economic chaos has elevated a demand for more rules and regulations for stock markets in national and international domains. These regulations, in turn, have led researchers to carry out more studies on regulatory mechanisms like circuit breakers in order to observe their effectiveness in different stock exchanges around the world especially price limits. Both empirical and theoretical studies are not conclusive about the results on the effectiveness of price limits and provide very little assistance.

The literature on price limits has had experimental and theoretical studies to its great help; but the results, unluckily, are not authentic as it should be. The reasons for the inadequate outcomes are scarce data and the absence of several convincing different methods for volatility. Hence, these experimental studies which are associated to each other do not provide considerable assistance.

After reviewing price limits, it is believed that in order to control the market environment and secure the market participants from irrational decision making process, price limits can be a good tool in emerging markets as price limits provide reassessment time to the investor and aid them in making any irrational decision.

On the other hand, opponents say that price limits have severe effects too and this makes them a costly mechanism, if triggered. Opponents believe that price limits are just an imposition by regulators and have nothing to do with market efficiency. They believe that stock

price limits hinder the trading activities, cause the volatility to spill over on subsequent days, harm the price discovery process and have a magnet effect. Therefore, regulators should be careful in implementing price limits in order to secure the market from volatility and impose them only when there is a need.

Finally, after assessing the literature on price limits, it is also believed that price limits have a higher prospective of presenting answers concerning the little understood consequences of circuit breakers. In Pakistan, no study has been done. Hence, price limits give us an opportunity to study Pakistan's financial market in order to observe its mechanisms both hypothetically and empirically, as no direct theoretical work exists on how price limits may condense market manipulation like when market should implement price limits and what best possible price band should be used.

Acknowledgment

I would like to say special thanks to Professor Dr. Farooq Chaudhry from Philadelphia University. This work would not have been achievable without his assistance and guidance.

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REFRAMING THE PATH TO SCHOOL LEADERSHIP: A GUIDE FOR TEACHERS AND PRINCIPALS

Nancy Lobo¹

Bibliographic Reference

Bolman, L. & Deal, T. (2010). *Reframing the path to school leadership*. California: Corwin.

Reframing the Path to School Leadership is designed and written for school principals and teachers who are in their first year of work. The purpose of this book is to serve as a mentor by providing insights into the work that principals and teachers do, particularly in their first year, and to enable them to become better leaders. The style of writing is interestingly different from most books on leadership and administration as it presents the various themes in the form of dialogues. This, needless to say, makes it easy for reading. It is cleverly written to include a series of dialogues between a new principal and a veteran principal and between a novice teacher and an experienced teacher. These conversations present the challenges that the new principal and novice teacher face and how they are mentored by a veteran principal and well experienced teacher respectively. Into the dialogues, Bolman and Deal have carefully willed in many situations that a new principal and a novice teacher are likely to face in their first year, and at the same time provide solutions to each of these situations. Each situation is an opportunity for readers to reflect on their own experiences. And to make it all the more focused, at the end of every section or frame, as they are often referred to, the authors sum up the themes in academic genre.

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Lee G. Bolman & Terrence E. Deal are the co-authors of the book and this is the second edition, which they claim in their introduction to be 'stronger in many ways' (p. 8) from the first edition. The first edition was first written in 1993 but not having seen or read a copy of it, it is difficult to comment on the improvements. Both Lee G. Bolman & Deal are well known scholars and writers and have written many books and articles together and individually. Reframing the Path to School Leadership reflects the knowledge and experiences of both the authors.

One the front cover of the book is a pretty picture of a pathway through a wood, not a forest, symbolizing the pathway that leads to becoming a better leader, whether it be as a principal or a teacher. And this is exactly what the book aims to do. However, the pretty picture is enclosed in a frame, capturing the concept of the frames within which different themes are presented. Not only is the cover attractive, glossy and smooth to the touch, the size and shape of the book makes it easy to carry around. It is a paperback and does not weigh much. The content of the book is only 124 pages and the font is a 12 with a 1.5 lined spacing. The paper used is smooth and white and so the black print of the words and a few diagrams makes the script clear. So, not only is the book comfortable for the eyes, but as the language is simple and easy it encourages readers to read on. And what adds to the charm of reading this book is the way the themes are designed into different sections. The writers and their publishers must surely have thought about all these aspects to be able to attract readers to this book. However, having said all this, it does not undermine the content of the book in terms of its practical and academic value.

The book is divided into seven parts, each part has, at an average, two chapters, one being about the principal's situation and

the other is about the teacher's. In each chapter the reader learns about a situation in Pico School through a little description and a conversation between the mentor and mentee. In the case of the principal, who is Jamie Rodrigues, the mentor is Brenda Corners, a principal in a neighbouring school. Brenda and Jamie met as they were leaving a meeting at the county office. A casual conversation led Brenda to volunteer herself as a mentor and sounding board. The other mentee is a young/novice teacher Joan Hilliard, whose aim in life was to become a teacher. For some reason, she was unable to do so after her college and worked in a brokerage firm. She learned to work amongst adults in stressful situations and thought that her skills will help her in dealing with children. In the second part of the book, she realizes the folly of such an assumption and is overwhelmed by the discipline problems in class. Also woven into the story is the character of her boyfriend who is not very supportive and creates the emotional stress in her life. Joan's mentor is Margaret Juhl, an experienced teacher in the school.

Though it may seem there are only these four main characters, there are others who play an important part in contributing to the plot of the story. One of them is Jamie's predecessor, Phil Bailey. Though he is finally seen towards the end of the 'story', he is an important presence, as he is constantly referred to when staff compare the New Principal to him. It is only when the symbolic gesture of having a farewell party for Phil leads to a welcome for Jamie, that the 'ghost' is finally settled and Jamie feels that the torch is finally passed on to him. It is the advice of Brenda and the role played by Phillis Gleason that actually leads to this event.

Phillis is the School secretary, and in the very first chapter she is portrayed as being helpful to Joan, yet 'critical' of Jamie through her comment about the previous principal. This makes Jamie wonder about the kind of power that people like her and the custodian have over the school. This sets the scene and style of writing where the

main characters are made to think and wonder about behaviours and issues that relate to their work and practices.

There are many other staff members like Phillis, who contribute towards the various themes as they play their part in the various situations weaving in and out of the lives of the main characters during their first year at Pico School. All these characters are so real that the reader can identify not only with the main character but can think of colleagues who behave in similar manners. This contributes towards reflective practice where the reader is constantly analyzing behaviors and situations.

The characters, though important, is not the essence of the book. It is the themes which are discussed through the situations described and identified at the end of each part in a scholarly fashion by the authors. These are valuable insights into leadership in a school. The book is divided into seven parts and there is a theme for each part. The themes that Bolman and Deal identify and explain at the end of each part, or frame as they are sometimes referred to, showcase their expertise. Bolman's expertise in organizational behavior and Deal's study and understanding of culture enable a blend of concepts in many themes. This is truly a book superbly coauthored.

The first theme or frame presented is entitled "A Pair of Rookies. There are three chapters to this part. Chapter one describes the first day for Joan in Pico School where she faces rudeness from one staff and helpfulness from another. Interestingly the rude behavior is a result of the person's dislike of the new principal. Such contrasts do exist in reality, and its helps to focus on the different people who help in the process of fitting in and settling down and those who create hurdles in the process, even if it is done unintentionally. The new principal's first staff meeting is described. Importantly the first address from him generates mixed reactions from the staff. Surprisingly the one person who does speak up publically is Margaret, who says, "Shouldn't you get to know this school and how we do things before

you preach about how we should teach?’ (p. 18). These lines send home an important message for any one aspiring to become principal, or for that matter anyone taking on any kind of leadership position, that they should be sure of their facts before speaking up and not jump to conclusions, particularly if one is new to that environment. By the end of this part, both Jamie and Joan find mentors, who right from the very start offer helpful suggestions. Mentors are important for ‘getting off on the right foot—or correcting missteps’ (p. 26). Other advice given by Bolman and Deal is to be aware that one will be tested as Jamie was by the staff and Joan by her students; being attentive to clues and signs which provide valuable understanding of the environment; to look for people, who will guide, like storytellers, priests and mentors; and to connect to the grapevine.

In part two Jamie demonstrates how a new principal should learn about and understand the political topography of his/her school, at the same time connect to certain important staff members. Side by side, Joan identifies the main student who causes behavior problems in her class and connects to him by providing him the pastoral care that he so needs and solving her classroom management problems at the same time. The mentors continue to play their part. Bolman and Deal continue to provide valuable suggestion on slowly but purposefully understanding the ‘lay of the land’, ‘building relationships with key players’ and learning how to ‘soothe and learn from the opposition’ at the same time dealing with differences and conflicts (pp. 54 & 55). Negotiation therefore becomes an important process in the political process.

Leadership Lesson III is about building relationships and empowering oneself and others. Bolman and Deal advice on spending time with people, particularly those who disagree or seem distant is not always easy to follow when the demands of a school day can keep a teacher or principal so busy that they have no time even for themselves. It is, of course, easier to avoid people in the work place who say things that hit home. Despite this, one needs to build

relationships and a good way to do so is by empowering such people. This implies a relationship built on trust.

The Structural Frame is an interesting part focusing on the existence of a structure and the problems within it. For example, the superintendent, an advocate for decentralization, had asked every school to establish a faculty-parent council. Joan is elected as the first chairperson of the council set up for Pico School. Her effectiveness is hindered by the presence of the principal at the meetings. He undermines what she says and she does not say anything because she doesn't want to usurp his authority. This is described as a 'classical structural problem' by Margaret, who then mentors Joan on what to do. Joan's resignation brings her into contact with Jamie, who by then had been advised by Brenda on the need for developing clearer roles for all concerned. Having a structure and determining the different roles of various people involved is important when setting up something new. The authors use the example of the family structure to explain the importance of roles so as to avoid confusion and having two people do the same job. The CAIRO technique suggested in this section was a new learning. It stands for roles played by someone who needs to be consulted, approve decisions, informed about the decision, responsible and not involved in the decisions. It is a simple way of determining roles by drawing a matrix for the various tasks and a diagram is given to enhance the reader's understanding. The authors focus on the need for structure and clarity of roles and goals in this section.

Though the fifth part is not the last part of the book yet it describes the end of the year celebration and the need for closure for Jamie. As mentioned earlier he was often compared to his predecessor, part of the reason for this was that the staff was not able to find closure as Mr Bailey had refused a farewell party. Once again Brenda wisely advises Jamie on the best way to get this done. With much reservation Jamie attends the party wondering what the staff will say

about him. He does not do too badly on a humorous first annual report card and he is particularly warmed by the summary recommendation of 'deserves promotion to second-year principal' and the staff singing a song for him. The symbolic and cultural activities for the staff at the end of the year and at the start of the next academic year is fused in this section. The writers do this beautifully and the reader can only enjoy the emotions of happiness felt by the different characters. The symbolic way of Jamie thanking Brenda adds to the beauty of this section. Interestingly the writers compare the need for ceremony and symbolism to military practices of pomp and celebration. The historic events of a school should be celebrated and one can clearly remember the number of schools in Karachi which have celebrated their centenary, and even more than 100 years, with pomp and ceremony.

The next section expresses the need for values, ethics and spirit as a teacher and as a principal. Chapter 11 is not an easy read. The story seems to move fast over a period of time like a semester and Joan's problems with her boyfriend seems to play a part. There is a new mentor for this situation who refers to the difficulties he faces in maintaining the balance between work and married life. Joan is left to figure out what she needs to do. Chapter 12 picks up the theme of values in a conversation between Jamie and Margaret. The dilemma of dealing with a teacher named Ted, who flounders in the classroom but needs the job because he is a single parent, is a dilemma for Jamie, who as a principal needs to maintain high standards for his school. This leads to a discussion of the role of the principal as a spiritual leader who 'radiate(s) the fate so others don't lose heart' (p. 130). It is but natural to think of concepts in humanistic approach to leadership and management where a balance has to be maintained between client and employee. It would be easier to say that the client comes first, but then the question arises about what one needs to do with the employee who is not up to the mark. Given the focus today on professional development for staff, one can only advise a principal like Jamie to provide such opportunities for Ted. Bolman and Deal's solution is

not really a clear cut answer and if Jamie were to follow it he would need to solve it on his own whilst considering his own values.

Passing the Torch is the last section of the book. At the end, the torch passes from Brenda to Jamie who after six years in Pico School will mentor a new principal in a neighbouring school. Brenda has retired and has settled in another state. Margaret passes on the torch to Joan who is also described as taking a new teacher under her wings. Though this is an expected ending for the stories of Jamie and Joan, it is with great sadness yet joy that one reads about the death of Margaret from cancer. She leaves a legacy and that is seen in how the staff and students react to her death. Even Roscoe, the troublesome student that Joan had to deal with, speaks at her memorial. An oak tree is planted in her name and symbolically she is still with the school through the staff and students who continue to remember her and follow in her footsteps. It is the 'circle of life' at its best.

It is hard to find sufficient words to express appreciation for the way with which the two authors, Bolman and Deal, make concepts in school leadership easy to understand. The language is simple and the structure of the book makes difficult themes clear. Concepts related to culture and values, though easy can be quite boring to read about, but in the context of the stories and experiences of Jamie and Joan, it becomes interesting. Though the story is fictitious but the events and experiences described are so real that one feels that these characters and events actually exist in his/her own professional lives. The kind of dedicated teacher and mentor Margaret was, would make any teacher aspire to be like her and the kind of School Leadership we see emerging would inspire any new principal to develop and lead a staff towards providing education in an environment of learning and fun. Bolman and Deal have truly reframed the path to school leadership

Note: This is an unsolicited book review and has been carried out as a class assignment project. The original book is issued from the library at Note Dame Institute of Education, Karachi.

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(Research Section)

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for monographs and books.

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