AN EMPIRICAL ANALYSIS OF PRE AND POST MERGER OR ACQUISITION IMPACT ON FINANCIAL PERFORMANCE: A CASE STUDY OF PAKISTAN TELECOMMUNICATION LIMITED

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ABSTRACT: The research of this study is to define the objectivity of merger and acquisition impact in pre and post scenario of the event. The study has played with two parts, the first part of the study implement regression model with the help of accounting ratios of profitability and long term financial position ratios with score of bankruptcy. The second part of the study just analyzes the pre and post financial ratios and its trend over the period of time. The time period taken for the selected company PTCL is from 2003 to 2009, which covers the event. The results of first part of the study has shown that profitability and long term financial position of the company is producing a strong positive impact on the firm score of bankruptcy. The second part of financial ratio has seen that after acquisition the profitability of has declined significantly and it has affected the score of the bankruptcy i.e. Z-Score. The overall long term financial position is neither improved nor declined. It has shown a constant trend over the period of time in which the data is taken. It has been conclude that performance of PTCL has not improved over the period of time.

KEYWORDS: PTCL, Acquisition, Merger, Regression, Profitability, Long Term Financial Position, Bankruptcy, Z-Score

INTRODUCTION

In the world of business, merger and acquisition is a business reengineering technique mostly used to achieve expansion, monopoly, market governance, obtaining competitive advantage, diversifying business portfolio and if rendered it to the definition, used to obtain synergy (Gupta, 2012). The phenomenon is quite simple in terms, making two or more entities in a single entity is called merger or acquisition (Weaver, 2001) (Afza & Yusuf, 2012). Merger and Acquisitions is considered as a complex decision for expansion of business and perceived as source of improved efficiency, Hubris (can be called winner curse), Agency Problem and over or under estimation of expected value in acquisition or merger (Abbas, Imran, & Saeed, 2014). There are so many certain sources of gains i.e. strategy, economy of scale, economy of scope, extended advantages and some other qualitative or quantitative measures as expressed in (Weaver, 2001). In modern world merger or acquisitions are force of expanded economy, improved competition, increment in shareholder wealth and risk reduction (ARSHAD, 2012).

The figure-1 draws, the number of deals of merger and acquisition worldwide from 1985 to 2014. The number of deals has increased therefore, if it is analyzed in a manner of trend, it can be easily inferred that number of deals till year 2007 is increasing and after that it has a declining trend.
again. The declining trend cannot be underestimated because it is not much significant (statistics-mergers-acquisitions, 2004).

Figure 1

![Announced Mergers & Acquisitions: Worldwide, 1985-2014e](image1)

Figure 2

The figure-2 has the same trend for Asia-Pacific region. The numbers of deals of mergers and acquisitions have increased by the time (statistics-mergers-acquisitions, 2004). According to Competition Commission of Pakistan, since 2007 total number of joint ventures numbered 14, acquisition of shares transactions are 344 and total number of mergers are 71 (Media Coverage Press Releases Uncategorised :: Mergers & Acquisitions). According to Karachi Stock Exchange (KSE) total numbers of merged companies are 126. There was an inclining trend in number of deals among listed companies onward year 2000 and again in a declining trend after 2005 and 2006 (Merged Companies) as shown in figure 3.
Figure 3. Analytical view of above figures makes it easier to assimilate the deals of merger and acquisition transactions with the Worldwide or Asia Pacific Transactions. The same trend is followed in Pakistan. The total numbers of transactions are low but the results are similar to the world trend. According to the financial consolidation report (Babar, et al., 2006). Financial economists reached the inference that how the firms are affected by financial distress and affects performance of the corporate; the long term financial distress affects the cost of bankruptcy (Opler & Titman, 1994). The optimal capital structure has benefit of tax saving but advantages of tax subsidies may increase the cost of bankruptcy. The cost saving from debt increases leverage (Kalaba, Langetieg, Rasakhoo, & Weinstein, 1984).

Introduction to the Company
In 1947 the beginning there was no concept of PTCL in Pakistan rather a department “Posts and Telegraph Department” exists which is used for communication. In 1962 a department was established “Pakistan Telephone and Telegraph department” replacing the first one in those days the service was provided by the organization as a state owned entity later on in 1991 the government took the decision to privatize the PTCL in 1994 govt. issued vouchers which are convertible in to shares then govt. work on it and in 1996 shares are given to people holding vouchers (Histoy of PTCL, 2002). In 2005 government decides to fully privatize the PTCL and sold the shares to Etisalat which led to country wide protests and strikes by the PTCL workers. They disrupted many connections of public sector buildings then military overtake the control of exchanges and arrested many workers put them in jails. All of this ended up with a 30% increase in the salaries of workers (Introduction and History of PTCL, 2014).

Etisalat of the UAE and Pakistan Telecommunications Company Ltd (PTCL) have agreed to continue talks over Etisalat’s acquisition of a 26% stake in PTCL. The sale was called off after Etisalat failed to meet the 28 October deadline for payment of the outstanding USD2.34 billion, but the two parties now hope to salvage the deal. A series of meetings will now be held to discuss outstanding issues. (PriMetrica, 2005). In 2006 Pakistan has brokered one of the country biggest deal of privatization i.e. 26% Management Share of Country largest telecommunication company limited (PTCL) been sold out for some about US$ 2.6 billion to a Dubai based Telecom Company Etisalat. (Jamal Shah, Rashid, Ullah, & Ahmed, 2009).
Objective of the Study
The objective of the study is to explore the impact on the score of bankruptcy, profitability and long term financial position. It has to explore the financial ability of the firm by inducing the event.

Significant of the Study
Most of the research has been done in the sector of banking in Pakistan. Some studies have been performed in the field of manufacturing. There was a significant gap to cover the service sector of Pakistan. The study implies to the service sector no fully but partially.

LITERATURE REVIEW

In past years number of studies has been conducted on the topic of merger and acquisition, precisely measuring profitability, leverage impacts, shareholder’s wealth and it is also paid emphasis on efficiency of mergers and acquisition. Mergers and acquisitions are considered as a strategy to gain profitability, avoid insolvency, improving asset quality and maximizing return on assets and equity (ARSHAD, 2012). (Oleyede & Luqman Adedamola, 2012) Conducted a study in food, beverages and manufacturing sector. The study applied ratio analysis with paired sample t-test and inferred that there was a significant effect in ROA, and in conglomerate sector there was significant impact on profitability but very small impact produced in manufacturing sector. Post merger profitability, liquidity, asset management, leverage and cash flows were not improved in post merger scenario; the study was conducted with the help of ratio analysis only for one sample, Royal Bank of Scotland (Kemal, 2011). CAPM (capital asset pricing model) and GARCH analyses suggested that acquirer will perform better in longer run (Maditinos, Theriou, & Demetriades, 2009). Financial statement analysis among 10 listed banks in Karachi stock exchange with 15 financial ratios calculated the performance of pre and post merger analysis in Pakistan. The results were compared with the help of sample paired t-test and inferred that there is no significant impact of merger on financial performance of banks merged between years 2006 to 2011 (Abbas, Imran, & Saeed, 2014). The operating performance has significantly declined along with the shareholder wealth after the transaction of merger has performed. The study tested performance of 3 banks with the help of ratio analysis between the years 2007 to 2010 (Kayani & Javed, 2013).

The main reason in declining of performance in corporate sector is determined by (Gupta, 2012). Merger has played a positive impact on cost and profit functions. The cost efficiency was rose from 93.83% to 94.15% but profitability was declined -5% after merger and acquisition in banking sector of Pakistan. The study used stochastic frontier analysis for data analysis to prove the significance of study (Afza & Yusuf, 2012). (ARSHAD, 2012). Risk based ratio have not produced any significant impact on the spread of the banks. The study found that merger has reduced perceived risk of merging and improved performance of the banks after merger. The study used 2020 daily bid spared from NASDAQ, bid ask spread was used as dependent variable, and multivariate analysis was used to calculate the risk and financial performance of the banks (Toledo, 2004). With the help of a sample of 7 from listed banks of Pakistan, hypothesis were created to investigate the impact of liquidity, profitability, investment and solvency has impact on merger or
not. The only ratio of liquidity remained positive and the rest of the ratios produce a negative impact on the merger (Shakoor, Nawaz, Asab, & Khan, 2014). Financial ratios have can only play impact if they are compare on the same point of time, it they are no they must be analyzed with univariate or multivariate type of analysis (Monroe, 1973). Geographic expansion has modest impact on profit efficiency and bankruptcy, the research suggests that some organizations can cope with the distance but there is no optimal scope of geographic expansion (Berger & DeYoung, 2001). Bankruptcy judgment is based on estimated sales and profit; they produce an impact on the indirect cost of the bankruptcy. Although it was concluded that the direct cost affects bankruptcy more effectively than indirect cost (Kwansa & Cho, 1995).

Low profitability ratios in restaurant industry have impact on bankruptcy. But the firms having larger liquidity ratios can lead the bank towards bankruptcy more quickly. Thus the companies should adopt less debt financing to avoid bankruptcy (Gu, 2002). (Casey, McGee, & Stickney, 1986) Investigated that if there is a change in preceding years of bankruptcy than the assets not secured against the collect oral can play a major role. The profitability can directly impact the firm behavior tending towards bankruptcy. Economic recession can directly impact the cost of bankruptcy and insolvency (Bernanke, 1981). On average the companies which are in financial distressed have debt/asset ratio equal to 35.1% and the companies which are performing poorly are weak as compared to their competitors (Opler & Titman, 1994). Analysis has suggested that geographical expansion of the company can lead to financial efficiency but with the help of close monitoring and up to the mark decision making (Berger & DeYoung, 2001).

**RESEARCH METHODOLOGY**

The aim of the study is to infer the impact of acquisition on the cost of bankruptcy. The study will use certain ratio as independent and bankruptcy as dependent variable with the help of regression analysis the conclusion will be drawn. The only company Pakistan Telecommunication Limited is taken one sample study the technique is selective. The selection is made because the said organization was previously government owned and it has been privatized. The PTCL privatization is and an acquisition by Etasalat, the telecommunication company of UAE (United Arab Emirates).

**Variables:**
The study takes two independent variables and one dependent variable. Independent variable includes profitability and long term financial position and bankruptcy model as dependent variable.
Model:

Profitability
- Operating Profit Margin
- Net Profit Margin
- Return on Asset
- Return on Equity
- Return on Investment
- Price earnings Ratio

Long Term Financial Position
- Debt to Equity Ratio
- Total Debt to Total Asset
- Capitalization Ratio
- Long-term Debt to Networking Capital
- Interest Coverage Ratio

Bankruptcy

Hypothesis
The objective of the study is to determine the impact of profitability and long term financial position impact on bankruptcy.
The hypotheses are

- $H_{00}$: Profitability has no impact on bankruptcy.
- $H_{a1}$: Profitability has significant impact on bankruptcy.
- $H_{02}$: Long term financial position has no impact on bankruptcy.
- $H_{b1}$: Long term financial position has significant impact on bankruptcy.
- $H_{c0}$: Acquisition has no improved performance of the company.
- $H_{c1}$: Acquisition has improved performance of the company.

Instrument
In order to investigate the proposed hypothesis secondary data will be used to determine the results. The financial statement will be used from 2003 to 2009 to infer results. The test is performed with the help of regression analysis. The test is conducted in two phases to calculate the difference of acquisition of PTCL. The first test is conducted before acquisition of PTCL and second is conducted after the occurrence of event. Regression results are conducted with the help of Excel 2007. The derived regression equations are as follow:

$$Z = \beta_0 + OPM\beta_1 + NPM\beta_2 + ROA\beta_3 + ROE\beta_4 + ROI\beta_5 + \epsilon_0$$

eq(1)

$OPM$=Operating Performance Margin

$NPM$=Net Profit Margin

$ROA$=Return on Asset

$ROE$=Return on Equity

$ROI$=Return on Equity
\[ Z' = \beta_0' + DTE\beta_1' + TDTE\beta_2' + CAP\beta_3' + LDNWC\beta_4' + IC\beta_5' + \epsilon_0' \] eq(2)

DTE=Debt to Equity Ratio  
TDTE=Total Debt to Total Equity  
CAP=Capitalization Ratio  
LDNWC=Long term Debt to Net Working Capital  
IC=Interest Coverage

Financial ratios are used to check the financial position of the firm. The health of the firm is measured with the help of different categorical ratios i.e profitability, leverage, financial position, capital ratios, cash ratios and asset quality. Current study will take profitability and long term financial position of PTCL.

The financial ratios include, Profitability (operating income margin, net profit margin, return on asset, return on equity, return on investment) and Long term financial position (Debt to equity, total debt to total asset, capitalization ratio, long term liabilities to networking capital, interest coverage ratios).

RESULTS AND DISCUSSIONS

The study has conducted two regression models to conclude the impact of profitability to bankruptcy score and long term financial position to bankruptcy score. Profitability ratios has good impact on the risk of bankruptcy. R square defines the significance of model fitness. The value of R^2 is .73 which identifies the 73% fitness and producing impact on the dependent variable of the study. Adjusted R^2 is .64 define 64% as depicted in table 1 and table 2, fitness after excluding the variables which seems to be remains constant. It is clearly depicted in the graph-1 that overall profitability ratios have a declining trend. After acquisition the impact product by the event has significant. The results are opposite to the study of manufacturing sector analysis of Pakistan (Ahmad & Ahmad, 2014). The profitability of the firms were improved but in case of PTCL the profitability of is declined significantly. The profitability of the bank, Royal Bank of Scotland in study (Kemal, 2011) was improved after acquisition of RBS by Faisal Bank of Pakistan but profitability of PTCL has declined after acquisition. The results are aligned with (Abbas, Imran, & Saeed, 2014), the profitability of the banks involved in acquisition was effected and declined. Standard chartered bank of Pakistan lost its efficient after indulgent in acquisition process. Standard Chartered bank of Pakistan acquired Union bank of Pakistan and lost profitability ratio results significantly (Karim, Ameed, & Ayaz, 2011) and alignment to the current results of the study. The profitability after merger or acquisitions has declined to -.05% as suggested by (Afza & Yusuf, 2012).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Regression Statistics</th>
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<tbody>
<tr>
<td>Multiple R</td>
<td>0.786</td>
</tr>
<tr>
<td>R Square</td>
<td>0.73995</td>
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<tr>
<td>Adjusted R Square</td>
<td>0.64397</td>
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<tr>
<td>Standard Error</td>
<td>0.23310</td>
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<td>Observations</td>
<td>7</td>
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</table>

<table>
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<th>Table 2 ANOVA</th>
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</table>
Long term financial position defines the capital structure implementation of the firm. The regression analysis of long term financial position with score of bankruptcy has shown R2 fitness 75% and adjusted R2 to 65% as depicted in table 3 and table 4. By means of long term position of the firm is producing as significant impact on score of Z-Model. After acquisition of PTCL total debt to equity ratio has increased, the ratio is a caution to the increment in debt on the company against equity. Total debt to asset ratio is sustaining after the event, before the event it was declining. Capital ratio is showing the same trend as like total debt to total asset. Interest coverage ratio has produced the same trend before and after the event the same trend is followed by long term debt to net working capital, referred to graph-2 and graph 3. The results of PTCL is same like...
Table 3: Regression Statistics

<table>
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<td>Multiple R</td>
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<tr>
<td>R Square</td>
<td>0.751739</td>
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<tr>
<td>Adjusted R Square</td>
<td>0.650435</td>
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<tr>
<td>Standard Error</td>
<td>0.131378</td>
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<td>Observations</td>
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Table 4: ANOVA

<table>
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<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance</th>
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<td>4.0105</td>
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<td>0.01726</td>
<td>0.01726</td>
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<tr>
<td>Total</td>
<td>6</td>
<td>2.089396</td>
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Graph 2: Long Term Financial Position (1/3)

- Debt Equity Ratio
- Total Debt To Total Asset Ratio
- Capitalization Ratio

Acquired By Etisalat

<table>
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<tr>
<th></th>
<th>Jul-03</th>
<th>Jul-04</th>
<th>Jul-05</th>
<th>Jun-06</th>
<th>Jun-07</th>
<th>Jun-08</th>
<th>Jun-09</th>
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<tbody>
<tr>
<td>Debt Equity Ratio</td>
<td>0.244</td>
<td>0.209</td>
<td>0.078</td>
<td>0.095</td>
<td>0.091</td>
<td>0.089</td>
<td>0.082</td>
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<tr>
<td>Total Debt To Total Asset Ratio</td>
<td>0.389</td>
<td>0.410</td>
<td>0.342</td>
<td>0.382</td>
<td>0.373</td>
<td>0.466</td>
<td>0.473</td>
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<tr>
<td>Capitalization Ratio</td>
<td>0.022</td>
<td>0.012</td>
<td>0.073</td>
<td>0.087</td>
<td>0.083</td>
<td>0.082</td>
<td>0.076</td>
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RECOMMENDATIONS

The study is conducted by using only one company of service sector; it can be conducted on the service sector of Pakistan. The study has used quantitative method of research; it can also include a qualitative variable with the current model of study. The data stream taken for the study is just 7 years it can be enhanced and improved method of testing can be implemented.

References


ISSN 2053-4086(Print), ISSN 2053-4094(Online); Impact Factor: 7.77


