A Comparative Analysis of Pre- and Post-Mergers' Profitability: Differential Realization of Financial and Non-Financial Institutions

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Abstract

In the financial and non-financial sector, merger has been traditionally used to either save a dwindling firm or expand the market opportunity of a striving organisation with the business intention of accruing larger profit. In this backdrop, the study is focused at dissecting and measuring the profitability of Pakistani financial and non-financial institution in the pre and post-merger periods. With a time frame of 2007-2011, the study investigates the profitability by considering return on assets (ROA), return on equity (ROE) and net profit margin (NPM) ratios of the selected institutions. Methodologically, the paired sample t-test was employed to understand the pre and post-merger situations and in addition the Pearson correlation was instrumental in evaluating the associations of variables, though that exposes the significant association among the variables. However, using the paired sample t-test, it became glaring there was insignificant difference in profitability for both financial and non-financial organizations in post-merger period.

Keywords: Mergers, Financial Sector, Non-Financial Sector, Profitability, Pre-Merger, Post-Merger and Pakistan.

Introduction:

The philosophical realization of mergers and acquisition is either to acquire the overall financial performance or to increase the value of shareholders. Pakistan has witnessed abundant mergers and acquisitions both in financial and non-financial sectors especially in the very recent past years to capture the growth potential. The theoretical motives behind mergers are to improve financial performance and value of organizational resources to generate more profit (Usman and Obaidullah, 2010).The impending opportunity to realize growth, expansion, unique

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capabilities, diversification, tax advantages and other benefits may be derived from merger and acquisition (Ahmed and Ahmed, 2014; Usman, Khan, Wajid, and Malik, 2012; Abbas et al. 2014).The mergers and acquisitions are comprehensively supportive to optimize the market growth in consortium with curtailing the production cost at large scale too (Kouser and Saba, 2011; Ashfaq, 2014).Mergers are supportive to overcome the problem of slow growth and contribute to achieve diversification, gain economies of scale and save taxes too (Usman, Khan, Wajid and Malik, 2012).

Mergers and acquisitions have become more popular not within the domestic but even in the globe by particularly mesmerizing the benefits of globalization, liberalization, technological advancement, competitive business personalities and cultures (Ahmed and Ahmed, 2014; Leepsa and Mishra, 2012; Usman, Mehboob, Ullah and Farooq, 2010; Rashid and Naeem, 2016).Usman, Khan, Wajid and Malik (2012) pointed that mergers help organizations to be a part of globalization. Fatima and Shehzad (2014) elaborated that technological advancement; enforced organizations to acquire or merge with each other but in some extent, mergers eliminate the business competitions among organizations (Kouser and Saba, 2011).

The financial performance of a single company may be strengthening by connecting with the company having tremendous record of high growth (synergy). The synergetic aspect of growth is the key attribute of mergers and acquisitions that ultimately improve the firms operating performance (Usman et al. 2012).Five types of merger provide a path to achieve the possible source of gains. The merger in which the nature of operations between the merger and merge is different from one another called as conglomerate merger. Researchers concluded that it helps to diversify the risk of an organization (Ashfaq, 2014). Horizontal merger is the combination of two organizations even not as a competitor producing similar kind of products and services for their customers in the same market. In Pakistan usually organizations merge horizontally to achieve economies of scale and efficiency (Lipczynski and Wilson, 2004; Ashfaq, 2014). Ahmed and Nadeem (2015) also pointed that horizontal merger positively increase the efficiency and effectiveness of the organizations. It also increased the market share and help organizations to explore and identify the new market opportunities for their businesses (Rashid and Naeem, 2016).Market-extension merger, enhance the business market and helps organization to cope a larger set of customers (Ahmed and Ahmed, 2014). Vertical merger exist between two organizations producing at different level with in same supply chain for one specific product. It ensures the availability of raw materials;

reduce the inventory cost of operations and wastage. When the organizations want to access the bigger set of customer and to earn high returns (profits), they merge with other organizations dealing with the products that are related to each other and operates in the same market, such merger is called product-extension merger.

Mergers and acquisitions have five stages at beginning the first wave of mergers was occurred in 1897-1904. In this era, only those companies merged who wanted to dominate the business of other organizations. Mostly horizontal mergers occurred in the heavy manufacturing industries. Most of the mergers that were visualized in this phase did fail because they could not achieve the desired performance. The next era of merger starts from 1916 to 1929 and in this phase, the business sectors were going to merger. The second wave of mergers taken place was main horizontal or conglomerate in nature. It resulted in the collapse of the stock market in 1929 and the great dispersion. In the period from 1965-69, mostly conglomerate merger took place. Such mergers were financed by different equity and investment banks. The third wave of mergers is over for the separation of conglomerates. The fourth wave of mergers (1981-1989) excluded the anti absorption laws. The fifth wave of mergers occurs in 1992-2000, in which mostly telecommunication and banking sector organizations were inspired and entered in merger and acquisition.

In Pakistan the merger and acquisition enters in its fifth wave after 2000, as the result of free trade polices promoted by the world trade organizations (WTO). In addition, the agreement between Asian countries had also contributed towards the increase of free trade policies between countries (Ashfaq, 2014). As a result organizations consolidate their operations with other organizations to attain the efficiency and effectiveness among competitors. Govt. and regulatory bodies also encouraged organizations to merge with each other. Based on historical information available at Pakistan Stock Exchange (PSE) total events of merger occurred from the period of 1995-2016 are total of 129, by taking a big number of financial sectors of 73 and non-financial 56 merging events.

Review of Literature on Non-Financial Mergers and Acquisition

Different researchers studied the impact of merger and acquisition on the non-financial sector of Pakistan. Usman, et al. (2012) identified that merger has no significant impact on the performance of manufacturing companies in Pakistan. Ashfaq (2014) also examined the impact of M&A on the post-merger financial performance in the non-financial sector of Pakistan. By applying the absolute and relative methods the results of his research revealed that merger has no positive impact on the profitability of non-financial organizations. Ahmed and Ahmed (2014) concluded that merger affects different companies differently and it insignificantly improves the financial performance of manufacturing companies in Pakistan.

Usman, Khan, Wajid and Khan (2012) analyzed the operating performance of merged companies in the textile sector of Pakistan. They calculated the post-merger and projected performance by examining the data of 5 non-financial events merged during the year 2001-2005. The post-merger result of their findings is not significantly different from the previous researches conducted by Usman et al. (2012), Ahmed and Ahmed (2014) and Ashfaq (2014). Whereas, the projected performance in the post-merger period is better as comparative to its pre-merger period. In addition, it is concluded that merger in the non-financial sector of Pakistan is not successful as it does not achieve the desired results. Rashid and Naeem (2016) also calculated similar results by examining the impact of mergers on the corporate financial performance in Pakistan merged during the year 1995-2012. OLS regression analysis and empirical Bayesian estimation method are used to calculate the effect of merger on the profitability, liquidity and leverage position of the corporate firms.

Al-Hroot (2016) observes financial performance of merger in Jordanian industrial sector. He identified that the insignificant result occurs due to change in the nature of business organization operations. Mahesh and Prasad (2012) investigated the impact of M&A on the financial performance of Indian airlines companies. They identified M&A have no impact on the profitability of airline companies. Sharma (2013) examines the post-merger performance of metal industry, by analyzing the performance of 9 companies merged during the year 2009-2010. Results suggest that merger in a long run helps to increase the leverage and liquidity position of metal industry but overall it declines the profitability of companies.

Laabs and Schiereck (2010) analyzed the sample of 230 organizations takeovers during the period 1981-2007 in the automotive industry. They conclude that in short run the organizations gain but in long run organizations diminish. Mantravadi and Reddy (2008) and Ramakrishna (2008) also evaluated that the non-financial organizations perform better in their post-merger period relative to pre-merger period.

Sathishkumar and Azhagaiah (2014) in India by studying the sample of 39 firms also analyzed the impact of M&A on the profitability of manufacturing industry. Results show positive improvement in the profitability of post-merger period and it reveals that manufacturing firms more effectively utilize their resources after merger and acquisition to earn profits. Ahmed, Raza, Amjad and Akram (2011) identified a positive improvement in the profitability of non-financial institutions in the year 2008-2009. Conyon, et al. (2000) also examined the impact of merger and acquisition on the profitability and remuneration in UK manufacturing industry. Results indicate that the profitability of manufacturing firm increased in their post-merger period as well it helps to increase employees pay level. Kruse, Park, Park and Suzuki (2007) studied the operating performance of 69 non-financial merged organizations. They find that the merger improves the performance of non-financial organizations in their post merger period. Demirbag and Tatoglu (2007) investigated the post-mergers performance of non-financial organizations. They considered three components of operating performance, ROI, NPM and research productivity. They identified that the productivity of firms decline in post-merger period. Whereas net profit margin increased in the post-merger period as compare to its pre-merger period. Kumar and Rajib (2007) evaluated the comparison between the profitability of merged organizations and non-merged organizations. Findings show that profitability of non- merged organizations is significantly higher than the firms that are involved in mergers and acquisition. Pazarskis, Vogiatzology, Christodoulou and Drogalas (2006) studied the sample of 50 Greek firms and they identified that mergers decreased the operating performance of manufacturing organizations.

Review of Literature on Financial Mergers and Acquisition

Many of researcher argued that merger has no significant impact on the profitability of financial institutions. Abbas, et al. (2014) investigated that merger negatively influence the profitability of banks in Pakistan. Haider, Shoaib and Kanwal (2015) also identified the unenthusiastic impact of merger on the different profitability ratios as calculated by taking the sample of different financial banks operating in Pakistan. From their research, they also stated that success of merger in banking sector depends upon its proper planning and execution.

Ahmad and Nadeem (2015) also argued that for the successful execution of merger it is identified that organizations collect all the necessary information before going in the process of M&A. Oloye and Osuma (2015) stated that M&A ensures the stability and profitability in the banking sector. The financial performance of Nigerian banks is better in post-merger period relevant to pre-merger period.Pathak (2016) examined the impact of merger on the banking sector of Nepal merge during the period from 2004-2013. Results revealed that merger totally failed to improve the profitability of banks in Nepal. Fatima and Shehzad (2014) also identified overall an insignificant impact on the profitability of banks in Pakistan merged during the year 2007-2010. Kemal (2011) measured the impact of merger on the financial performance of Royal Bank of Scotland in Pakistan. The results suggest that merger fails to improve the profitability of banks in Pakistan

Moctar and Xiaofang (2014) conducted a research to analyze the impact of M&A on the financial performance of West African banks. Three basic variables were used. Results conclude that merger increase the performance of banks in long run. Masud (2015) identified that merger impact different organization differently also the result of merger varies with the time. Gathuka and Njeru (2016) studied the financial performance of 14 commercial banks merge during the period 2000-2011 in Kenya. Result reveals that M&A improve the financial performance of commercial banks. Ahmed and Ahmed (2014) examined the effect of M&A on the financial performance of 11 banking institutions in Pakistan merge during the year 2006-2010. Three years per- and post-merger data was used to analyze the impact of merger on the profitability, liquidity, assets quality and leverage. It is found that merger has an in significant effect on the profitability of banks in post-merger period.

In the study by Kushme, Kwazhi and Imam (2015) of deposit money of banks in Nigeria, they found that the profitability and EPS of banks increase in the post-merger period. Shakoor et al. (2014) identified that in Pakistan M&A does not vacillate the profitability of banks in the post-merger years. Singh (2015) studied the impact of post-merger financial performance of ICICI banks. Results conclude that merger has no impact on the performance of ICICI banks in its post-merger period relative to pre-merger period. Joshua (2011) examines the impact of M&A on the efficiency of banks in Nigeria. He stated that M&A has a positive impact on the efficiency of banks. Huian (2012) finds insignificant impact on the profitability of banks in Romania. Gupta (2015) also investigates impact of M&A on the financial performance of banks in India. By taking sample of two events, merger of ICICI with The Bank of Rajasthan and the merger of HDFC with Centurion Bank of Punjab. Results indicate that overall merger increase the financial performance, profitability and efficiency of banks. Badreldin and Kalhoefer (2009) identified the impact of M&A on banks in Egypt during the period 2002-2007. They found that merger increased the ROE and that significantly improves the profitability of banks. Different researcher identified a general increase in the profitability of banks. Joash and Njangiru (2015) analyzed the impact of merger on the financial performance of banks in Kenya. They also concluded that merger increased the value of shareholders and the profitability of banks.

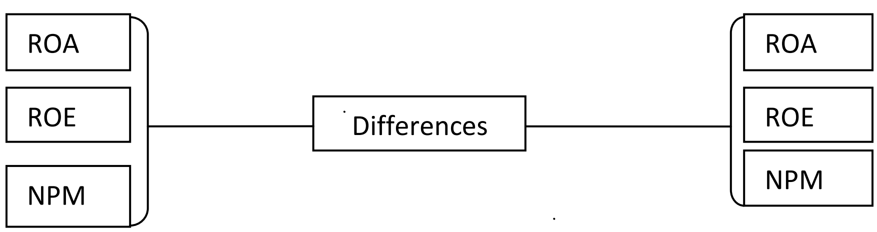
Research Question

How does a merger influence the profitability of pre-and post-merged companies in financial and non-financial sectors?

Schematic Framework

Different profitability ratios like Return on total assets (ROA), Return on total equity (ROE)and Net profit margin (NPM) as per the State Bank of Pakistan's are use to identify the significant changes occurred in pre- and post-merger five years period of the financial and non-financial merged companies in Pakistan during the year 2007-2011. The pre- and post-merger profitability of the companies were calculated by using three main ratios ROA, ROE and NPM. Researcher has picked under mentioned referred variables to strengthen the philosophy of measurement of profitability from different research articles: ROA (Usman et al. 2012; Kemal, 2011; Ahmed and Ahmed, 2014; Usman, Khan, Wajid and Malik, 2012; Fatima and Shehzad, 2014 and Singh, 2015), ROE (Abbas et al. 2012; Ashfaq, 2014; Moctar, 2014; R and Parsad, 2012; Usman, Khan, Wajid and Malik, 2012; Fatima and Shehzad, 2014; Usman et al. 2012; Ahmed and Nadeem and Kemal, 2011) and NPM (Gupta 2015; Maheshand Parsad, 2012; Usman, Khan, Wajid and Malik, 2012) for merged organizations in their pre-and post-merger five years' is calculated. The graphical representations of approaches used in this research are given below.

Fig. 1: Schematic Diagram



Research Design and Methodology

To comprehend the differences between pre- and post-merged companies' profitability the relevant financial data was retrieved from the annual reports of the sampled institutions downloaded from companies' respective website and State Bank of Pakistan. To compute broader differences in pre- and post-merged companies' profitability, five year's pre- (-1,-2,-3,-4 and -5) and five years' post- (+1,+2,+3,+4 and +5) financial results computed for financial and non-financial companies. The particular merging year omitted from comparative analysis. To ascertain comprehensive differences in pre- and post-profitability, the paired sample t-test was applied. The paired for financial and non-financial companies made by considering recent post-merged year +1 with recent pre-merged year -1 while, +2 with -2 and so on and so forth.

Population, Sample and Sampling Technique

To infer comprehensive statistical results the total number of mergers held during 2007 to 2011 both in financial and non financial sectors are considered the whole population for this study. The researchers have collected available financial information from 6 mergeree with 4 merged financial institutions and 4 mergeree with 4 merged companies in non-financial sector during the study time. The companies were selected in the sample on the available and convenient data sources.

Table # 1: List of Selected Companies in Financial and Non-Financial Sectors in Pakistan during 2007-2011

Financial Merged Companies		
Name of Mergeree	Name of Merger	Year of Merger
The Royal Bank of Scotland Ltd	Faysal Bank Ltd	2011
Atlas Bank Ltd	Summit Bank Ltd	2011
My Bank Ltd		
Orix Investment Bank Ltd	Orix Leasing Pakistan Ltd	2009
PICIC Commercial Bank Ltd	NIB Bank Ltd	2008
Pakistan Industrial Credit and Investment Corp. Ltd (PICIC)		
Non-Financial Merged Companies		
Shaheen Cotton Mills Ltd	Shahzad Textile Mills Ltd	2010
Automotive Battery Company Ltd	Exide Pakistan Ltd	2009
Pakistan Slag Cement Industries Ltd	Zeal Pak Cement Factory Ltd	2008
Suzuki Motorcycles Pakistan Ltd.	Pak Suzuki Motor Company Ltd.	2007

Source: self generated

Measurement of Profitability

The motive of the current study is to examine the impact of merger on the profitability of financial and non-financial organizations in their pre- and post-merged period. Following accounting, ratios were used for the measurement of profitability. The proxies for profitability have considered the following ratios.

ROA= Net Income after Tax/ Total Assets

ROE= Net Income after Tax/ Total Equity

NPM= Net Income after Tax/ Total Sales/Revenue

Discussion and Analysis

To comprehend the philosophical attribution of pre- and post merged phenomenon the initial phase of the discussion carries to explore the association among variables. The association among variables, both for financial and non-financial organizations the Pearson correlation was applied.

Table # 2: Financial Organizations Pre- and Post-Merger 5 Years Means Correlations

		ROE Pre	ROE Post	ROA Pre	ROA Post	NPM Pre
ROA Pre	Pearson Correlation	.846	.579	1		
	Sig. (2-tailed)	.071	.306			
	N	5	5	5		
ROA Post	Pearson Correlation	.646	.881*	.140	1	
	Sig. (2-tailed)	.239	.048	.822		
	N	5	5	5	5	
NPM Pre	Pearson Correlation	.869	.806	.657	.647	1
	Sig. (2-tailed)	.056	.099	.228	.238	
	N	5	5	5	5	5
NPM Post	Pearson Correlation	.745	.935*	.276	.990**	.710
	Sig. (2-tailed)	.149	.020	.653	.001	.179
	N	5	5	5	5	5

**. Correlation is significant at the 0.05 level (2-tailed).*
***. Correlation is significant at the 0.01 level (2-tailed).*

In the table above the correlations between the financial organizations pre-merger five years mean and post-merger five years mean of profitability ratios is calculated. Findings show that the financial pre-merger ROA and ROE has a Pearson correlation of 84.6% and their significance level is calculated as 0.071 which shows significant results at 90% interval and insignificant at 95%. The Pearson correlation between the pre-merger financial ROA and post-merger financial ROE is 57.9 % and their significance level is calculated as 0.306 that is insignificant at 90% and 95%. Financial ROA in post-merger years has a 64.9 % of Pearson correlations with financial ROE in pre-merger periods and the significance level of these both calculated as 0.239, which shows insignificant results and the performance of financial organizations in pre-merger year is insignificant. Whereas in post-merger period the financial ROA and ROE has a Pearson correlation of 88.1 % and significance level calculated as 0.048 that is reveals significant results in post-merger year at the interval of 90% and 95%. Financial ROA pre- and post-merger has a Pearson correlation of 14.0% and the significance level is 0.822, conclude that ROA has an insignificant results in its pre- and post-merger period. Correlation between the pre-merger financial NPM and ROE is to be calculated 86.95% and the significance level is 0.056 which shows significant results at 95% interval and insignificant at

90% interval. Financial NPM pre- and ROE post has a correlation of 80.6% and significance level calculated as 0.099, which shows significant results at 90% interval. The correlation between pre-merger NPM and ROA is 65.7% and the significance level is .228. Whereas the correlation between NPM pre- and ROA post calculated as 64.7 % and their significant level is .238. Financial NPM in the post-merger period has a correlation of 74.5% with ROE pre-merger and the significance level is .149, which shows insignificant results at 95% and 90% interval. Financial NPM and ROE in the post-merger year has correlation of 93.5% and significance level calculated to be 0.020, which shows significant results at 90% and 95% interval. The correlation between NPM post-merger and ROE pre-merger is 27.6% and the significance level calculated as .653. The correlation between NPM and ROA in post-merger period calculated as 99.0% and significant level is .001. It reveals that the results are insignificant at 90% and 95% interval. The correlations between the NPM in its pre- and post-merger period is 71.0% and the significance level is.179. This shows insignificant results.

Table # 3: Non- Financial Organizations Pre- and Post-Merger 5 Years Means Correlations

		ROE Pre	ROE Post	ROA Pre	ROA Post	NPM Pre
ROA Pre	Pearson Correlation	.669	-.087	1		
	Sig. (2-tailed)	.217	.890			
	N	5	5	5		
ROA Post	Pearson Correlation	-.677	-.465	-.146	1	
	Sig. (2-tailed)	.209	.431	.815		
	N	5	5	5	5	
NPM Pre	Pearson Correlation	.819	-.129	.675	-.305	1
	Sig. (2-tailed)	.090	.836	.211	.618	
	N	5	5	5	5	5
NPM Post	Pearson Correlation	-.344	-.176	.370	.424	-.406
	Sig. (2-tailed)	.571	.777	.540	.477	.497
	N	5	5	5	5	5

*. Correlation is significant at the 0.05 level (2-tailed).

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

In above table the correlation between the pre-merger and post-merger five years mean of non-financial organizations is calculated. Findings show that the pre-merger ROA has a Pearson correlation of 66.9% with pre-merger ROE and their significance level is 0.217, which shows an insignificant result at 90% and 95 % interval. The Pearson correlation between the pre-merger ROA and post-merger ROE is -8.70% and the significant level calculated as 0.890 that is insignificant at 90% and 95%. ROA has a negative correlation with ROE. ROA in post-merger period has a -67.6 % of Pearson correlations with pre-merger ROE and the significance level is calculated as 0.209 which shows an insignificant results at 90% and 95% interval. In post-merger period the ROA and ROE has a Pearson correlation -46.5 % and their significance level is 0.431 that is shows insignificant results in post merger year at the interval of 90% and 95%. ROA in its pre- and post-merger years has a negative correlation of -14.6% and the significance level is 0.815, conclude that the ROA shows an insignificant results in its pre- and post-merger period. Correlation between the pre-merger NPM and ROE is 81.9% and the significance level is 0.090 which shows an insignificant results at 95% interval and significant at 90% interval. Pre-merger NPM has an -12.9% of correlation with post-merger ROE and significance level calculated to b 0.836. The correlation between NPM and ROA in pre-merger year is 67.5% and the significance level is 0.211. This shows that the performance of non-financial organizations in pre-merger year is insignificant. The correlation between pre-merger NPM and post-merger ROA calculated as -30.5 % and significant level is .618. Correlation between the NPM post- and ROE pre- is to be calculated -34.4% and the significance level is .571, which shows insignificant results at 95% interval and 90% interval. NPM and ROE has an -17.6% of correlation in their post-merger period and significance level calculated to be 0.777, which shows insignificant results at 90% and 95% interval. The correlation between NPM post- and ROA pre- is 37.0% and the significance level is.540. The correlation between NPM and ROA post-merger correlations between variable calculated as 42.4 % and significant level is .477. The correlations between the pre- and post-NPM is -40.6% and the significance level is 0.497.

Statistical Tests

Paired sample t-test is used to compare the profitability of financial and non-financial organizations in their pre- and post-merger five years period during the year 2007-2011. Meanwhile, the strengthen ability of correlation of selected variable is measured through Pearson correlation matrix.

Findings

The performance of financial and non-financial organizations measured with the help of paired sample t-test. The pre-merger mean of five years (-5,-4,-3,-2,-1) and post-merger five year (+1,+2,+3,+4,+5) is calculated for all sampled companies(10 merge and 8 merger) both from financial and non-financial sector merged during the year 2007-2011 is analyzed separately and given in tables.

Results of Financial Organizations

Table #4: Mean Difference, S.D and Significance Level of Financial Companies' Year 1

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	0.137	0.067	-0.070	-6.950	0.029	0.017
ROA	0.020	0.007	-0.013	-1.290	0.004	0.006
NPM	0.238	0.066	-0.171	-17.110	0.079	0.023

The calculated mean of pre-merger and post-merger profitability of financial organizations show negative significant results in year 1. The mean of ROE during the post-merger period is 0.067 and during the pre-merger period, it is 0.137. This shows an insignificant decrease of -6.950%. Whereas the paired sample S.D is 0.029 and the significance level of ROE is 0.017. This shows negative significant results. The ROA during the post-merger period is 0.007 and for its pre-merger period, it calculated as 0.020, which shows an insignificant decrease of -1.290% and the paired sample S.D of ROA is 0.004 and significance level calculated as 0.006. The NPM during the post merger period is 0.066 and for its pre-merger period, it calculated as 0.238. This shows an insignificant decrease of -17.110%. The paired sample S.D is 0.079 and the significance level of NPM is 0.023. Based on the above results it concluded that the merger has a negative significant impact on the profitability of the financial organizations.

Table # 5: Mean Difference, S.D and Significance Level of Financial Companies' Year 2

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference In % Age	Paired Sample S.D	Significance Level
ROE	0.1390	0.0848	-0.0542	-5.42	0.0789	0.2630
ROA	0.0174	0.0069	-0.0105	-1.05	0.0111	0.1570
NPM	0.4374	0.0558	-0.3816	-38.16	0.3404	0.1110

The performance of financial organizations deteriorated in post-merger period as compared to its pre-merger period. The mean of ROE during the post-merger period is 0.0848 and during the pre-merger period, it is 0.1390. This shows an insignificant decrease of -5.42%. Whereas the paired sample S.D is 0.0789 and the significance level of ROE is 0.2630. This shows insignificant results. The ROA during the post-merger period is 0.0069 and for its pre-merger period, it is 0.0174, which shows an insignificant decrease of -1.05% and the paired sample S.D of ROA is 0.0111 and significance level calculated as 0.1570. The NPM during the post-merger period is 0.0558 and for its pre-merger period, it calculated as 0.4374. This shows an insignificant decrease of -38.16%. The paired sample S.D is 0.3404 and the significance level of NPM is 0.1110. Results conclude that in year 2 financial organizations has an insignificant impact on the profitability of financial organizations.

Table # 6: Mean Difference, S.D and Significance Level of Financial Companies' Year 3

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference In % Age	Paired Sample S.D	Significance Level
ROE	0.0413	0.0172	-0.0241	-2.41	0.1407	0.8750
ROA	0.0088	0.0010	-0.0078	-0.78	0.0270	0.6010
NPM	-0.0703	0.0052	0.0755	7.55	0.4755	0.7720

The mean of ROE during the post-merger period is 0.0172 and during the pre-merger period, it is 0.0413. This shows an insignificant decrease of -2.41%. Whereas the paired sample S.D is 0.1407 and the significance level of ROE is 0.8750. The ROA during the post-merger period is 0.0010 and for its pre-merger period it is 0.0088, which shows an insignificant decrease of -0.78% and the paired sample S.D of ROA is 0.0270 and significance level calculated as 0.6010. The NPM during the post-merger period is 0.0052 and for its pre-merger period, it calculated as -0.0703. This shows an insignificant increase of 7.5%. The paired sample S.D is 0.4755 and the significance level of NPM is 0.7720. The performance of financial organizations deteriorated in the post-merger periods as the time pass.

Table # 7: Mean Difference, S.D and Significance Level of Financial Companies' Year 4

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.1841	-0.2866	-0.1025	-10.2500	0.5497	0.7340
ROA	-0.0195	-0.0020	0.0175	1.7500	0.0577	0.5880
NPM	-0.1380	-0.1554	-0.0174	-1.7400	0.4502	0.9430

In year 4 the mean of ROE during the post-merger period is -0.2866 and during the pre-merger period it is -0.1841. This shows an insignificant decrease of -10.25%. Whereas the paired sample S.D is 0.5497 and the significance level of ROE is 07340. The ROA during the post-merger period is -0.0020 and for its pre-merger period it is -0.0195, which shows an insignificant increase of 1.75% and the paired sample

S.D of ROA is 0.0577 and significance level calculated as 0.5880. The NPM during the post-merger period is -0.1554 and for its pre-merger period, it calculated as -0.1380. This shows an insignificant decrease of -1.740%. The paired sample S.D is 0.4502 and the significance level of NPM is 0.9430. The results reveal that the merger has an in significant impact on the profitability of the financial organizations.

Table # 8: Mean Difference, S.D and Significance Level of Financial Companies' Year 5

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference In % Age	Paired Sample S.D	Significance Level
ROE	-0.3065	-0.1999	0.1066	10.6600	0.7763	0.8010
ROA	-0.0150	-0.0161	-0.0011	-0.1100	0.0506	0.9670
NPM	-0.2408	-0.0327	0.2081	20.8100	0.3137	0.2770

The mean of ROE during the post-merger period is -0.1999 and during the pre-merger period it is -0.3065. This shows an insignificant increase of 10.66%. Whereas the paired sample S.D is 0.7763 and the significance level of ROE is 0.8010. The ROA during the post-merger period is -0.0161 and for its pre-merger period it is -0.0150, which shows an insignificant decrease of –0.110% and the paired sample S.D of ROA is 0.0.0506 and significance level, calculated as 0.9670. The NPM during the post-merger period is -0.0327and for its pre-merger period calculated as -0.2408. This shows an insignificant increase of 20.81%. The paired sample S.D is 0.3137 and the significance level of NPM is 0.2770. With increase in the time, the performance of the financial organizations decreased in post-merger period. In addition, it shows insignificant results.

Table # 9: Combined Mean Differences, S.D and Significance Level of Pre- and Post-Merger Financial Companies Five Years

Variable	Pre-Merger Mean	Post-Merger Mean	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.0347	-0.0635	-0.0288	-2.88	0.08076	0.471
ROA	-0.0327	-0.0006	0.0321	3.21	0.09003	0.469
NPM	0.0452	-0.0121	-0.0573	-5.73	0.22792	0.604

The calculated result of combined mean of pre-merger five years and combined means of post-merger five years show insignificant decrease. The combined mean of ROE during the post-merger period is -0.0635 and during the pre-merger period it is -0.0347. That shows an insignificant decrease of -2.88%. Whereas the paired sample S.D is 0.08076 and the significance level of ROE is 0.471. The ROA during the post-merger period is -0.0006 and for its pre-merger period it is -0.0327, which shows an insignificant increase of 3.21 and the paired sample S.D of ROA is 0.09003 and significance level calculated as 0.469. The NPM during the post-merger period is 0.0452 and for its pre-merger period, calculated as -0.0121. This shows an insignificant decrease of -5.73. The paired sample S.D is 0.22792 and the significance level of NPM is 0604. Based on the above results it is concluded that the merger has an insignificant impact on the profitability of the financial organizations. Overall merger deteriorated the ROE, ROA and NPM of financial organizations in its post-merger period.

Results from Non-Financial Sector

Table # 10: Mean Difference, S.D and Significance Level of Financial Companies' Year 1.

Variable	Pre-Merger Mean Year 1	Post-Merger Mean Year 1	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	0.0058	0.048	0.0422	4.22	0.19147	0.689
ROA	0.1447	-0.0035	-0.1482	-14.82	0.27686	0.363
NPM	-0.0111	0.0183	0.0294	2.94	0.12047	0.659

In non-financial organization the calculated mean of pre-merger and post-merger financial ratios show insignificant results. The mean of ROE during the post-merger period is 0.0480 and during the pre-merger period, it is 0.0058. That shows an insignificant increase of 4.22%. Whereas the paired sample S.D is 0.19147 and the significance level of ROE is 0.689. The ROA during the post-merger period is -0.0035 and for its pre-merger period, it is 0.1447, which shows an insignificant decrease of -14.82%. The paired sample S.D of ROA is 0.27686 and significance level is calculated as 0.363. The NPM during the post-merger period is 0.0183 and for its pre-merger period, it is calculated as -0.0111. This shows an insignificant increase of 2.94%. The paired sample S.D is 0.12047 and the significance level of NPM is 0.659. Overall ROE and NPM increased in post-merger period.

Table # 11: Mean Difference, S.D and Significance Level of Financial Companies' Year 2

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	0.1151	0.1076	-0.0075	-0.75	0.20306	0.946
ROA	0.0494	0.0254	-0.024	-2.40	0.10803	0.687
NPM	0.0105	-0.8055	-0.816	-81.60	1.60408	0.384

The mean of ROE during the post-merger period is 0.1076 and during the pre-merger period, it is 0.1151. That shows an insignificant decreased of -0.75%. Whereas the paired sample S.D is 0.20306 and the significance level of ROE is 0.946. The ROA during the post-merger period is 0.0254 and for its pre-merger period, it is 0.0494, which shows an insignificant decrease of -2.40%. The paired sample S.D of ROA is 0.10803 and significance level calculated as 0.687. The NPM during the post-merger period is -0.8055 and for its pre-merger period, calculated as 0.0105. This shows an insignificant decrease of -81.60%. The paired sample S.D is 1.60408 and the significance level of NPM is 0384. Finding reveals that the merger has an insignificant impact on the profitability of the non-financial organizations.

Table # 12: Mean Difference, S.D and Significance Level of Financial Companies' Year 3

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.0256	0.1041	0.1297	12.97	0.2093	0.303
ROA	0.0076	-0.0025	-0.0101	-1.01	0.13189	0.888
NPM	-0.0241	-0.8857	-0.8616	-86.16	1.76919	0.402

For year 3, the mean of ROE during the post-merger period is 0.1041 and during the pre-merger period it is -0.0256. That shows an insignificant increase of 12.97%. Whereas the paired sample S.D is 0.2093 and the significance level of ROE is 0.303. The ROA during the post-merger period is -0.0025 and for its pre-merger period, it is 0.0076, which shows an insignificant decrease of -1.01%. The paired sample S.D of ROA is 0.13189 and significance level calculated as 0.888. The NPM during the post-merger period is -0.8857 and for its pre-merger period, it calculated as -0.0241. This shows an insignificant decrease of -86.16%. The paired sample S.D is 1.76919 and the significance level of NPM is 0.402. Results show an insignificant decreased in the profitability of non-financial organizations.

Table # 13: Mean Difference, S.D and Significance Level of Financial Companies' Year 4

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.2027	-0.0505	0.1522	15.22	0.60232	0.648
ROA	0.0097	0.0117	0.002	0.20	0.11028	0.974
NPM	-0.1627	-0.5931	-0.4304	-43.04	0.88238	0.401

The mean of ROE during the post-merger period is -0.0505 and during the pre-merger period it is -0.2027. That shows an insignificant increase of 15.22%. Whereas the paired sample S.D is 0.60232 and the significance level of ROE is 0.648. The ROA during the post-merger period is 0.0117 and for its pre-merger period, it is 0.0097, which shows an insignificant increase of 0.20%. The paired sample S.D of ROA is 0.11028 and significance level calculated as 0.974. The NPM during the post-merger period is -0.5931 and for its pre-merger period, it calculated as 0.1627. This shows an insignificant decrease of -43.04%. The paired sample S.D is 0.88238 and the significance level of NPM is 0.401. With the passage of time, the profitability of non-financial organizations shows insignificant results in its post-merger period.

Table # 14: Mean Difference, S.D and Significance Level of Financial Companies' Year 5

Variable	Pre-Merger Mean Year	Post-Merger Mean Year	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.2998	0.0915	0.3913	39.13	0.51472	0.226
ROA	-0.0475	-0.002	0.0455	4.55	0.07231	0.297
NPM	-1.0598	-0.2051	0.8547	85.47	1.64568	0.375

The mean of ROE during the post-merger period is 0.0915 and during the pre-merger period it is -0.2998. That shows an insignificant increase of 39.13%. Whereas the paired sample S.D is 0.51472 and the significance level of ROE is 0.226. The ROA during the post-merger period is -0.002 and for its pre-merger period it is -0.0475, which shows an insignificant increase of 4.55%. The paired sample S.D of ROA is 0.10803 and significance level is calculated as 0.687. The NPM during the post-merger period is -0.2051 and for its pre-merger period it is calculated as -1.0598. This shows an insignificant increase of 85.47%. The paired sample S.D is 1.64568 and the significance level of NPM is 0.375. This is because organizations in non-financial sectors are facing loss in their pre-merger period and after merger profitability of organizations decline and it shows insignificant results.

Table # 15: Combined Mean Differences, S.D and Significance Level of Pre- and Post-Merger Non-Financial Companies Five Years

Variable	Pre-Merger Mean	Post-Merger Mean	Difference	Difference in % age	Paired Sample S.D	Significance Level
ROE	-0.0814	0.0601	0.1415	14.15	0.15388	0.109
ROA	0.0328	0.0269	-0.0059	-0.59	0.09494	0.896
NPM	-0.2494	-0.4942	-0.2448	-24.48	0.71156	0.485

The calculated result of combined mean of pre-merger five years and combined means of post-merger five years show insignificant decrease in the non-financial sector of Pakistan. The combined mean of ROE during the post-merger period is 0.0601 and during the pre-merger period it is -0.0814. That shows an insignificant negative increase of 14.15%. Whereas the paired sample S.D is 0.15388 and the significance level of ROE is 0.109. This shows that ROE in post-merger year is insignificant as compare to pre-merger period. The ROA during the post-merger period is 0.0269 and for its pre-merger period, it is 0.0328, which shows an insignificant decrease of -.59%. The paired sample S.D of ROA is 0.09494 and significance level calculated as 0.896. The NPM during the post merger period is -0.4942 and for its pre-merger period, calculated as -0.2494. This shows an insignificant decrease of -0.2448. The paired sample S.D is 0.15388 and the significance level of NPM is 0.109. Based on the above findings conclude that the merger does not increased the profitability of organizations in its post-merger period and the non-financial organizations perform better in their pre-merger periods.

Conclusion

By analyzing results, researcher identified that mergers in the financial and non-financial sectors of Pakistan during the year 2007-2011 did not achieve desired results in their five years post-merger period. In financial sector, it shows negatively significant results in first year after merger but as the time passes the profitability of organizations decreased in post-merger period. Many reasons are highlighted earlier by different researcher about the failure of merger in financial sector of Pakistan. The main reason observed is that the organizations may lose the trust of their customers and in return, they are not able to increase the source of their funds to enhance their capital (Abbas et al., 2014a). In addition, they lack the confidence of their shareholders. Whereas in the non-financial sector it is observed by, analyzing the above results that merger does not improve the profitability of non-financial organizations in its post-merger period. It shows insignificant results. The profitability of non-financial organizations negatively improved in post-merger years. The findings of this study provide the information and developed an understanding about the importance of merger events in financial and non-financial institutions to different stakeholders like creditors, investors, bankers, researcher and employees (Ahmed and Nadeem, 2015).

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