An Analysis of Impact of Merger and Acquisition of Financial Performance of Banks: A case of Pakistan

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Abstract
This study is testing the impact of merger and acquisition of banks and provides insights about their role after merger on banks profitability. In this paper six financial ratios are used for analysis these ratios are profit after tax, return on asset, return on equity, debt to equity ratio, deposit to equity ratio and EPS. Ten banks are selected as sample for analysis which gets into merger from 2007-10. 3 year pre-merger and 3 year post-merger data points are taken for all the 10 cases and their averages are compared. In SPSS paired sample T-test is applied for analysis and findings shows that only at 5% level of significance only ROE is affected by the merger and acquisition and other ratios have no impact from this strategy.
Keywords: merger, impact, financial performance, Pakistan, acquisition

1. Introduction

With the rapid advancement in technology, the global business industry is also at the forefront of such changes. For the past couple of years, we have witnessed the introduction of new products in the market. Over-capacity indeed is the glaring issue here for the very basic of the Law of Demand & Supply seems to have been ignored entirely. In the face of this predicament, firms need to reinvent ways of coping with the harsh reality of the industry. Should production be cut or totally cease from operation and rely solely on robust branding, or be more market pro-active and buy-up fledgling competition to emerge as the "last-man-standing"? Economic advantage and competitive edge is the name of the game. Business combination is one proven and tested method by companies wanting to grow and gobble up a larger market share.

Merger is the combination of two or more entities by purchase acquisition whereby the identity of one of the entities remain while the others are being dissolved. The reasons behind the merger transactions are basically gaining market share, competitive advantage, increasing revenues and risk and product diversifications. With the global financial crises, it is noticeable that mergers and acquisitions have considerably increased. Corporations employed such combination not only for the sake of competitiveness but to maintain a firm foothold in the industry as well. This has led to the significant transformation in the business landscape.

In the story, mergers and acquisitions have appeared in five stages. In the beginning the first movement of mergers occurred from 1897 to 1904. And in this era, the companies merger took place who want to enjoy a monopoly on their production lines as railways, electricity, etc. this wave have taken place in the form of horizontal mergers and occurred in the heavy manufacturing industries. Most of the mergers that were visualized in this phase become failed because they could not achieve the desired performance. The next phase of mergers occurred in 1916 to 1929 and its major emphasis was to merge business sectors for oligopoly not monopoly. Technological development as the development of railways and transport vehicles under the condition of mandatory infrastructure for such a merger or acquisition takes place. The second wave of mergers taken place was main horizontal or conglomerate in nature. Those industries that have gone on a merger at this stage were the primary producers of metals, foodstuffs, petroleum products, transport equipment and chemicals. Investment banks have played a crucial role in facilitating mergers and acquisitions. The second wave of mergers resulted in the collapse of the stock market in 1929 and the Great depression. Tax benefits, which were granted, inspired the merger in 1940. On the other hand the type of mergers took place during (1965-69) was mostly conglomerate. Mergers were financed from equity, investment banks are no longer played an important role. The third wave of mergers is over for the separation of conglomerates in 1968. And this happened due to the underprivileged progress of conglomerates. The 4th wave of mergers that began in 1981 and ended in 1989was characterized by the acquisition target, the wren is much larger compared with the third wave of mergers. The merger took place between the oil and gas industry, pharmaceutical industry, banking and airline industries. The 4th wave of mergers over anti absorption laws. The fifth wave of mergers (1992-2000) was inspired globalization of the stock market boom and a wave of mergers occurred deregulation. This merger wave occurred mainly in banking and telecom sectors. They were mostly funded by capital rather than debt finance. (Kouser & Saba, 2011)

The most of the researcher investigates the impact of merger and acquisition on two basis first on accounting method and second on the share price data. While the accounting performance measures are very difficult to compare. Moreover, the difficulty arises in attempting to ascertain a valid combined performance measure for the bidder and target as target either ceases to exist or remain an independent subsidiary of the bidder. In both cases financial reporting of holding, combine firm or target will be different (Powell and Stark 2005). However, whether a no of researches conducted on accounting data to measure the impact of takeover on operating performance in long and short run argues that any benefit arising from acquisition will eventually be appear in company's accounting performance or records (Tuch & O'Sullivan, 2007). A snapshot of the studies measuring financial performance is provided in Table 2 of Appendix.

Operating performance studies attempt to identify the sources of gains from mergers and to determine whether the expected gains at announcement are ever actually realized. If mergers truly create value for shareholders, the gains should eventually show up in the firms' cash flows. These studies generally focus on accounting measures of profitability, such as return on assets and operating margins (Andrade, Mitchell, & Stafford).

This whole research revolves around the research objectives and the objectives of this dissertation are: To critically evaluate the impact of mergers and acquisitions in the Banks profitability, To highlight issues and challenges in mergers and acquisition of banks, To proffer reasons for the accelerating pace of mergers and acquisition in banking sector, To look into banks that are a result of mergers and acquisitions and make a finding on the desirability or otherwise of the exercise, To scrutinize the financial performance of bidder firms before and after acquiring target firms, Do the shareholders benefit from M&A?

This research will highlight the merger impacts on the performance of organizations and their shareholders. It will be of significant importance for the industry and other firms in the industry to recognize the importance of mergers and acquisitions and impacts on company's performance and the synergies achieved through them. This research will also be helpful to managers and executives as it will provide them an in-depth analysis of the relationship between merger and performance level. This research will provide up to date knowledge which will be also helpful for the University students by providing them extensive knowledge regarding mergers and acquisitions in the Pakistani industry. This piece will also act as basis for reference for further studies in the area of mergers and acquisitions. This study would particularly be helpful to the following stakeholders: corporate stockholders and managers, investors, academe, government, brokers, consultancy firms, investment banks, business partners, creditors, customers, the Karachi Stock Exchange and the public in general.

Though one question that hounds the industry, will the entities be able to handle the ramifications of the merger coupled with the risks involved in such activity and will the business combination improve the profitability of the firms. This paper investigates the effect of merger and acquisition on firm's profitability in terms of Earning per share (EPS) and Profit after tax.

2. Literature Review:

A study is conducted by (Muia & Fidelis) in Kenya to examine some market and industry variable as a determinant of merger and acquisition and their impact on the growth of business. The study population consists of 32 firms in the financial and industrial sectors listed at the Nairobi Stock Exchange. Stratified and purposive sampling techniques are used to obtain a sample size of 6 firms. The independent variables used by him are Profitability and Industry variables are Sales growth and Industry concentration while Market variables are Stock market index and GDP growth. The dependent variable of that study was growth of company which is measured by EPS. Study shows the Pearson's correlation results that were significant at $p=0.05$ level. Regression results for all firms show an impressive prediction of R^2 value ranging from 0.667 to 0.999. Profitability is the most influential variable in determining growth of firms through mergers and acquisitions in Kenya. However, industry concentration, sales growth, stock market index and GDP growth also determines growth of firms through mergers and acquisitions but to a lesser extent. The study concludes that firms be encouraged to embrace M&A growth strategy in corporate finance especially when pursuing the profitability and wealth objectives.

Another study is conducted in Nigerian banking sector to evaluate merger and acquisition as an intervention strategy. It was observed that weather this corporate strategy is successful to meet its objective in Nigerian industry or not. The study was carried out using both primary (questionnaire) and secondary (banks financial statements) data and applies t-statistics on it. The study shows Merger/Acquisition had helped to curb the distress that would have occurred in the Nigeria banks during the period it was executed; banks performance in post-Merger was significantly different from the performance before Merger. It is also observed in that there would not have been need for merger if good corporate governance had been in place. Based on these findings, it was recommended that merger/acquisition should not be hastily implemented; rather, it should be carefully applied when the objective for the intending firms is to achieve synergy; and that, corporate governance should be given priority attention by both the regulatory agencies and shareholders so that erring bank directors can be sanctioned appropriately. (Oghojafor & Adebisi, May 2012)

(Adebayo & Olalekan , 2012) measured the impact of merger and acquisition on commercial banks performance in Nigeria, by using the sample of ten merged banks out of 24. They conducted a survey by filling questionnaire and also use ratios of sample banks. They have generated three hypothesis and applied correlation and t-test and their result shows that EPS has significant relation in pre and post-merger it also improved the capitalization of banks and the overall performance increased after merger.

(M. Healy & Palepu, 1990) examines the data of 50 largest U.S merged companies during 1979-1987. They examine the operating cash flows of the companies and their results showed that the asset productivity is significantly improved after merger and the operating cash flows return are also higher than pre-merger. They also studied that there is strong relationship between post-merger increase in operating cash flows and abnormal stock return of the company merged.

(Ravenscraft & Scherer, 1986) examine target firm profitability over the period 1975 to 1977 using Line of Business data collected by the FTC. The FTC collected data for 471 firms from 1950 to 1976 by the business segments that the firms operated. This allows Ravenscraft and Scherer to track the post-merger performance of the target firm. They find that the target lines of business suffer a loss in profitability following the merger. They conclude that mergers destroy value on average, which directly contradicts the conclusion drawn from the announcement period stock market reaction.

A study conducted in Pakistan, in which the impact of merger and acquisition on post-merger life of company captured. It covers the sample of 8 companies which passed through merger and acquisition phase in Pakistan during the year 2000-2002. Most of the merger companies of this study belong to the banking and others to pharmaceutical industry. All the sample companies were listed on Karachi Stock Exchange. Impact of merger & acquisition on share price of these companies has been observed through event study. Results indicated that positive changes have resulted in the share price of five companies and negative impact in the share price of the two companies have been found one month after the merger. Moreover, no change in the price of one company has been found. Overall, the results indicate that M&A positively affect the share price of companies. (Mahmood, Aamir, Hussain, & Sohail, 2012)

Another study conducted by (Kouser & Saba, 2011) having the sample from Pakistan banking industry and selected 10 merged banks during the period of 1999-2010 and measure the performance of post merge banks from six ratios (gross profit, operating profit, net profit margin, ROE, ROCE and debt to equity ratio). They concluded that all these ratio has decreased after the merger and acquisition.

Another study is conducted in Nigeria to evaluate the impact of merger and acquisition of financial efficiency of banks of Nigeria. In this paper used gross earnings, profit after tax and net assets of the selected banks as indices to determine financial efficiency by comparing the pre-mergers and acquisitions' indices with the post- mergers and acquisitions' indices for the period under review. Data were collected from the published annual reports and accounts of the selected banks and were subsequently analyzed applying t-test statistics through statistical package for social sciences. It was found that the post- mergers and acquisitions' period was more financially efficient than the pre-mergers and acquisitions period. However, to increase banks financial efficiency, the study recommend that banks should be more aggressive in their profit drive for improved financial position to reap the benefit of post mergers and acquisitions bid. (Joshua, 2011)

In Pakistan on more research is conducted to analyze the financial performance of Royal Bank of Scotland after merger in Pakistan. This paper study financial ratios of RBS and financial statements from 2006-2009. The results show that the financial performance of RBS in the areas of profitability, liquidity, assets management, leverage, and cash flows has been quite satisfactory before the merger deal. It means that merger deal fails to improve the financial performance of the bank. (Kemal, 2011) As in Pakistan the practice of Merger and acquisition is mostly negligible but still the working on it it conducted. This study investigated the performance record of forty five mergers and acquisitions (M&A) that took place during 2004 to 2010 in various sectors of Pakistan using event study methodology. Our findings indicated that overall during eleven day window period neither target nor acquirer firms created or destroyed value for shareholders. (Bashir, Sajid, & Sheikh, 2011)

(Kumar & Bansal, 2008) In India investigated whether the claims made by the corporate sector while going for M&As to generate synergy, are being achieved or not in Indian context. The study is based on secondary financial data and tabulation, ratio analysis, correlation etc. is being used for analysis. The results indicate that in many cases of M&As, the acquiring firms were able to generate synergy in long run, that may be in the form of higher cash flow, more business, diversification, cost cuttings etc. The research shows that management cannot take it for granted that synergy can be generated and profits can be increased simply by going for mergers and acquisitions. A case study based research parallel to this study could be initiated to get nearer to reality show.

The objective of the study in Turkey is to investigate the impact of Merger & Acquisition (M&A) deals on the performance of acquirer Turkish companies. A total of 62 companies involved in M&A deals between 2003 and 2007 were included in the sample. Analysis of both stock market and accounting data weakly support the hypothesis that acquirer companies are negatively affected by M&A activities. (Akben-Selcuk & Altiok-Yilmaz, 2011) A study provides a systematic empirical analysis of the effects of merger and acquisition activity on profitability and firm level employee remuneration in the United Kingdom, using a specially constructed database for the period 1979-1991. It finds that both profitability and wages rise following acquisition, and firms that merge within the same industry division experience larger increases in profitability and pay their workers higher wages than those engaged in unrelated acquisitions. (Conyon, Girma, Thompson, & Wright, 1999)

(Tuch & O'Sullivan, 2007) provides a snap shot about the researches conducted for investigating merger and acquisition impact on performance of firm, that snap shot also attached in appendix. The study suggests that, in the short run, acquisitions have at best an insignificant impact on shareholder wealth. Long-run performance analysis reveals overwhelmingly negative returns, while the evidence using accounting performance measures is mixed. The review also examines the impact of bid characteristics on performance. The acquisition of hostile targets, transactions that are paid for with cash and acquisitions of larger targets are associated with superior (or at least less negative) performance, while there is mixed evidence on the benefits of related acquisitions. A number of recent studies find that acquirers with superior pre-bid performance tend to experience significant underperformance in the post-bid period. (Tuch & O'Sullivan, 2007)

(Asma, 2012) investigated the performance of standard chartered bank of Pakistan after its merger after having ratio analysis she found that after merger the performance has declined and show merger as a very poor strategy. Analysis in this place is still developing, and results are difficult to evaluate as the strategies still vary widely. Overall, however, when conventional accounting actions are used, the evidence is somewhat combined but there is no clear proof of enhanced post-acquisition performance. (Tuch & O'Sullivan, 2007)

The problem addressed by this paper is: What effect does merger or acquisition have on financial performance of banks? And whether the financial performance of banks improve after merger and acquisition?

Hypotheses:

To answer the above stated research question we have to develop following hypothesis.

H0: Merger and acquisition has no significant effect on Financial Performance of banks.

H1: Merger and acquisition has significant effect on Financial Performance of banks.

So we have to form following mathematical hypothesis for testing for each variable independently i.e.

$H0 = \mu pre-\mu post = 0$

$H1 = \mu pre-\mu post \neq 0$

3. Methodology:

3.1. Research Design:

The aim of the study is to find out the relationship between the event of Merger and acquisition and impact of this strategy on the financial performance of banks. So it is a causal and correlational study. Being a causal research, it determined whether the change in the company's profitability is caused by business combination. On the other hand, as a correlational research, the study seeks to know the relationship of mergers and acquisitions to the companies' financial performance. Besides knowing the relationship, this study also obtained an estimate of the possible impact of the independent variable to the dependent variables. SPSS is used for statistical analysis. The data is collected from the KSE listed companies which are merger from 2007 to 2010. Through internet we got the audited annual reports of the companies. The total merger from 2007 to onwards is 15 but we selected 10 cases the limitation of data availability applied on this sampling. List of sample banks is provided in Appendix.

3.2. Variables:

The variables used in the model are explained as: the dependent variable will be the event when Merger and Acquisition is takes place. While the independent variable is financial performance of banks. To measure the financial performance I have took 6 ratios for analysis as ratio is a best indicator of performance.

Profit after tax	PAT
Return on equity	ROE
Return on Asset	ROA
Debt to Equity ratio	D/E
Deposit to Equity ratio	DP/E
Earning per share	EPS

3.3. Methods of Data Analysis:

To test the above hypothesis and to satisfy these questions we have to follow the following approach. To test whether there is a significant difference in the financial performance of banks (H2) we have to compare the pre-merger profitability ratios with the post-merger profitability ratios. So 3 year pre-merger and 3 year post-merger data points are taken for all the 10 cases and then there averages are taken for the purpose of analysis. For the purpose of analysis from pre-merger period only Target Company is taken while in post-merger time the bidder company is taken into the account of analysis.

- Both pre-merger and post-merger data series was tested for normality test using unit root testing.
- After test it is concluded that data do not follow the normality assumption so we will apply Wilcoxon sign rank test instead of paired sample T-Test to compare the averages value of before and after the merger.

4. Findings:

Here we compared the pre and post-merger values on the basis of their mean values. Pairs are compared of each variable for per merger and post-merger banks ratios, to check that whether the difference between pre and post-merger mean values is zero or not i.e. ($H0 = \mu pre-\mu post = 0$, $H1 = \mu pre-\mu post \neq 0$). Paired t-test (two-tailed) is conducted to test for differences between pre- and post-merger means.

The table 1 shows that the change that occur in the ratios after merger and acquisition having normal distribution except ROE ratio that contain non-normal distribution. So according to the methodology we use paired sample T-test for normal distribution variables while Wilcoxon sign rank test for non-normal distribution. Table 2 shows the mean values of before and after merger of every variable. It is the descriptive of variables. We can see that mean value of profit after tax before merger is in negative and after merger it has positive impact but it is observed that the data is insufficient for inferring the profit after tax impact. We can also see that after merger mean value of return on asset, leverage and deposit to equity ratio has increased but the earning per share decreased in its mean value after merger. Table 3 shows the correlation between pre and post-merger profitability indicators. We can see clearly that none p value is significant it mean there is no correlation is exist between before and after merger period for profit after tax, return on asset, leverage, deposit to equity ratio and earning per share. The same results also can be seen in table 4 which shows t-test values. The p value for all the variable is greater than the significance level of 5%. It is also reject on10% significance level it mean that the after merger value of any variable doesn't influenced by its pre-merger time period. As our return on equity is an non normal variable so we applied Wilcoxon sign rank test on it and found the result which are shown in table 5 & 6 that there is significant impact of return on equity on the event of merger. As its p value is less than 5% level of significance.

5. Conclusion:

On the given evidence we are concluded that we are not in the position to accept alternative hypothesis for profit after tax, ROA, leverage ratio, deposit to equity ratio and EPS. So we have to accept our null hypothesis because of their p value are insignificant i.e. (0.436, 0.861, 0.122, 0.179, 0.189) respectively. But the p value for return on equity is 0.017 so we have to reject null hypothesis for ROE and accept that there is a relationship between the before and after merger. These values are compared at 5% of significance level. From above analysis we infer that the purpose of merger is not properly achieved in this era neither the synergy is created nor are the economies of scale achieved. So we can say that the merger doesn't shown any positive effects on the financial performance of banks. Our results are similar with (Joshua, 2011) who also concluded that neither the ratio impact the bank financial performance after merger significantly but there is an increase in the mean values of all ratios after merger. At the same time our results are consistent with (Kouser & Saba, 2011) and (Kemal, 2011) who said that there is no significant relationship between ratios of banks before and after merger.
For future research we computed that the following study can be carried out on the large scale as the biggest limitation of our study is unavailability of financial report of banks before merger but in future as seen it will not be a much problem as the IT revolution is improving the industry. Moreover research also found major micro and macro determinants of merger and acquisition of banks in Pakistani scenario.

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Appendix:
Appendix 1

Author(s) (year)	Period of study	Details of sample	Country	Time period	Main findings
Meeks (1977)	1964–1972	233 mergers and acquisitions	UK	0 to +7 years	• Positive abnormal profits from the combined firm in the merger year of 0.114% (significant). • Abnormal profits of between –0.035 and –0.109% (all significant) over +1 to +5 years. Returns in years 6 and 7 following the bid are insignificant.
Herman and Lowenstein (1988)	1975–1983	56 hostile tender offers	US	–3 to +3 years	• ROE of 14.8% during the merger year and 15.3% in year +1 for the 1975–1978 period. ROE of 4.3% and 9.3% (year 0 and +1) for the 1981–1983 period (statistical significance not reported). • ROE for bids made between 1975 and 1978 varies between 11.4% and 16.9% (years –3 to +3) and between 4.3% and 15.6% for years 1981–1983 (statistical significance not reported).
Healy *et al.* (1992)	1979–1984	50 largest mergers	US	0 to +5 years	• The combined firm exhibits median operating cash flow return on actual market value of assets of 2.8% over 5 years following the bid (significant). • 2.4% increase in post-merger cash flow returns, while controlling for pre-merger performance (significant).
Healy *et al.* (1997)	1979–1984	50 largest industrial takeovers	US	–5 to +5 years	• Significant median industry-adjusted cash flow return on assets of 2.8% from 5 years when no bid premium is paid to target shareholders compared with an insignificant 2.1% when a premium is paid. • 73% of firms have positive, industry-adjusted cash flow returns assuming that there is no target premium 5 years after the bid.
Dickerson *et al.* (1997)	1948–1977	2941 acquisitions	UK	0 to +18 years	• Non-acquiring firms outperform acquirers by 2.4% per annum (significant).
Ghosh (2001)	1981–1995	315 cash, stock and mixed financed transactions	US	–3 to +3 years	• Median difference between merged firm and matched firm sales growth insignificant for year –3 and year +3. For year +1 +0.08% (significant). • Insignificant difference in median and mean operating expenses between merged and matched firms over years –3 to +3. Increase by 8% (significant) in year 1 following the bid. • No significant difference in the employee to sales relationship between the merging and matched firms over 6 years around the bid.
Linn and Switzer (2001)	1967–1987	413 mergers and acquisitions	US	–5 to +5	• Average 1.81% industry-adjusted combined firm cash flow return over the –5 to +5 year period (significant). • 2.89% mean adjusted and 2.20% industry-adjusted increases in operating cash flow for the combined firms (both significant).
Rahman and Limmack (2004)	1988–1992	94 quoted acquiring and 113 private target firms	Malaysia	–4 to +5 years	• Operating performance mean of between –1.51% to +4.40% over years –4 to –1 and average returns between 2.75% and 11.23% over years +1 to +5. The return is calculated as the pre-tax operating cash flow return on operating assets.
Lu (2004)	1978–1996	592 completed bids	US	0 to +5 years	• Significant negative impact of the bid on acquiring firm return on assets and return on equity for periods –12 to +12; –24 to +24; –36 to +36; –48 to +48; and –60 to +60 months.
Bild *et al.* (2005)	1985–1996	303 acquisitions	UK	0 to +4 years	• Abnormal ROE between –1.47% and 0.99% for years –3 to –1 and abnormal ROE of 17.24% to 21.50% for years 0 to +3. 'Raw' ROE is control firm adjusted. • No abnormal valuation differences between control firms and acquirers over years –1 to –4. Post-bid valuation difference of 5.62% for years +1 to +4. Post-bid valuation difference of 5.62% for years +1 to +4. Fundamental firm value is determined on the basis of the book value, forecast dividends and residual income.

(Tuch & O'Sullivan, 2007)

Appendix 2

Sr. no	Bidder Bank	Target Bank	Merger Date
1.	Standard Charter Bank	Union Bank Limited	30 Dec 2006
2.	NIB	PICIC Commercial Bank	31 Dec 2007
3.	ABN Amro Pakistan LTD	Prime Commercial Bank	1 Sep 2007
4.	Samba Financial Group	Crescent Commercial Bank	31 Mar 2007
5.	KASB Bank Limited	Network Leasing Corporation Limited	5 Dec 2008
6.	Askari Leasing Limited	Askari Bank Limited	22 Dec 2009
7.	Summit Bank Limited	Atlas Bank Limited	28 Jan 2011
8.	Summit Bank Limited	Mybank Limited	31 May 2011
9.	HSBC Bank Middle East Limited	the Hong Kong and Shanghai Banking Corporation (all branches in Pakistan)	30 Jan 2009
10.	Bank Al Falah Limited	National Bank of Pakistan	19 Oct 2010

Appendix 3

Table 1

One-Sample Kolmogorov-Smirnov Test

		adj_roa	adj_roe	adj_pat	adj_leverage	adj_deposit	adj_eps
N		10	10	10	10	10	10
Normal Parameters[a]	Mean	.0569	-3.2462	1.8529E5	7.6285	5.0930	-8.9854
	Std. Deviation	.99494	9.07797	7.18606E5	14.12745	11.05581	1.99768E1
Most Extreme Differences	Absolute	.365	.497	.302	.186	.238	.401
	Positive	.307	.356	.302	.186	.236	.282
	Negative	-.365	-.497	-.259	-.170	-.238	-.401
Kolmogorov-Smirnov Z		1.154	1.572	.954	.589	.752	1.267
Asymp. Sig. (2-tailed)		.139	.014	.322	.879	.623	.081

a. Test distribution is Normal.

Table 2

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PAT_pre	-5.6775E4	10	6.02598E5	1.90558E5
	PAT_post	1.2852E5	10	4.10861E5	1.29926E5
Pair 2	ROA_pre	.0061	10	.03612	.01142
	ROA_post	.0630	10	.99604	.31498
Pair 3	Leverage_pre	9.5622	10	6.09224	1.92654
	Leverage_post	17.1907	10	14.20698	4.49264
Pair 4	Deposit_pre	7.5307	10	5.63806	1.78291
	Deposit_post	12.6236	10	8.51843	2.69376
Pair 5	EPS_pre	8.3424	10	20.30143	6.41987
	EPS_post	-.6430	10	1.58265	.50048

Table 3

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PAT_pre & PAT_post	10	.031	.931
Pair 2	ROA_pre & ROA_post	10	.049	.894
Pair 3	Leverage_pre & Leverage_post	10	.227	.527
Pair 4	Deposit_pre & Deposit_post	10	-.186	.607
Pair 5	EPS_pre & EPS_post	10	.242	.500

Table 4

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1 PAT_pre - PAT_post	-1.85291E5	7.18606E5	2.27243E5	-6.99351E5	3.28768E5	-.815	9	.436
Pair 2 ROA_pre - ROA_post	-.05687	.99494	.31463	-.76861	.65487	-.181	9	.861
Pair 3 Leverage_pre - Leverage_post	-7.62849	14.12745	4.46749	-17.73466	2.47768	-1.708	9	.122
Pair 4 Deposit_pre - Deposit_post	-5.09298	11.05581	3.49615	-13.00183	2.81587	-1.457	9	.179
Pair 5 EPS_pre - EPS_post	8.98539	19.97680	6.31722	-5.30515	23.27594	1.422	9	.189

Table 5

Ranks

		N	Mean Rank	Sum of Ranks
ROE_post - ROE_pre	Negative Ranks	8[a]	6.38	51.00
	Positive Ranks	2[b]	2.00	4.00
	Ties	0[c]		
	Total	10		

a. ROE_post < ROE_pre

b. ROE_post > ROE_pre

c. ROE_post = ROE_pre

Table 6

Test Statistics[b]

	ROE_post - ROE_pre
Z	-2.395[a]
Asymp. Sig. (2-tailed)	.017

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test