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The Impact of Merger and Acquisition on Bank Performance: A Case of Pakistani Banking Sector

Muttalib — MS Management Sciences, Institute of Business Studies and Leadership, Abdul Wali Khan University Mardan, KP, Pakistan.

Muhammad Faizan Malik — Assistant Professor, Institute of Business Studies and Leadership, Abdul Wali Khan University Mardan, KP, Pakistan. Email: faizanmalik@awkum.edu.pk

Shehzad khan — Assistant Professor, Institute of Business Studies and Leadership, Abdul Wali Khan University Mardan, KP, Pakistan.

Abstract

Merger and acquisition is the strategy used by banks to expand its development process. In the current study operating and market performance has been assessed of the Banks exercised the M&A by taking the data from 2005-17. The main focus of the study is to evaluate the Banks performance using data collected from nine banks gone through the merger and acquisition strategy with the help of ordinary least square model. The results show significant relationship operating performance but insignificant relation with market performance. Findings provided an opportunity for the Banks to study and utilize the M&A strategy for capturing market share and further development in the competitive market. Furthermore, a glimpse for potential investors has been provided who want to create a profitable portfolio according to market concentration. The implications demands that proper improvement should be considered for the mechanism and regulatory policies to ensure the security of Banks.

Key Words:
Return on Assets, Merger and Acquisition, Pakistan Stock Exchange, Banks, Operating Performance, Market Performance.

Introduction

Merger and acquisition is a strategy used by firms for coping market share and expansion of business. Specifically, banks are more actively involved in adopting the M&A strategy in the context of developing countries. The merger decision is a different phenomenon from the traditional way of expanding branch banking business. Generally, larger banks takeover the small banks in the industry they are in competition.

Merger and acquisition both defined together but different from each other's, in merger two or more banks combine together and make a new bank while in acquisition strategy one bank takeover the other bank (Tanriverdi, 2013). A wide range of industries and different sectors e.g. banking companies, insurance companies, oil and gas, electricity are the main in number performed will the strategy. Brealey (2006) stated that in 2000 US companies incurred 1.7 Tn on M&A.

Sudarsanam (2003) proposed from his study that the main aim behind M&A is to maximize the worth of stockholders. Because maximum banks are trying to become the leader of the market in terms of deposits and market share which leads towards adopting M&A strategy, and also occur on regular basis now (Kernak, 2011) for the improvement of market shares and decreasing business risk. The performance of two banks also improves with the adaptation of the strategy (Sharma, 2009). Furthermore, business goal along with the discussed benefits also to refine their financial performance, certain studies provided the evidence of better financial performance.

Recently, M&A is considered the most popular way for the attainment of Bank objectives (Sudarsanam, 2003). The two legal entities on when came together making single legal entity is the shape of M&A (Frantlikh, 2003). The merger and acquisition is somehow different concepts but in countries like Pakistan the strategies only considered are acquisition. The acquisition can made negative viewpoint and demotivates all stakeholders of the bank for being acquired which leads to poor future performance (Kotter & Schlesinger, 2005). Hence, irrespective of idea, concept, definition and theory comparing and distinguishing M&A for one another the modern day acquiring banks referring it M&A.

Uche and walter (2005) explained that in the post M&As of various states e.g. Malaysia, Chile and Nigeria banks operating performance enhanced. The operating performance effectiveness of United States of America banks boosted but the consequences found irrelevant (Choi & Hamatuck, 2006). One more study done in the environment of Australia used various factors like profitability, cash flow efficiency, leverage and growth of 72 companies.

Lau (2008) provided assessment of banks operating performance, the results showed that the operating performance enhanced and increased in post M&A. The event of M&A can leads to good operating performance or vice versa, (Joshua, 2011) guided in his study concerning how the performance can be enhanced after the event. Alternatively, in another study it was observed and proved that the performance of Nigerian banks had improved and expanded by growth (Olalekan and Adebayo, 2012).

In the current study for explaining the model of M&A strategy, their range of adoptability and also significance for the banks the specific definition will be followed. The operating and market performance will be discussed in details of the banks used M&A strategy from 2005 till 2017 in both scenarios before and after M&A. The aim is to clarify whether the performance of the banks become well financially or not. Furthermore, for clarification of financial related problem faced by banks and also the decline in the scale of customer is also an issue after the event. So it has also been judged that market share of the acquirer bank dropped or increased in term of market performance.

Problem Statement

Previously studies have explained the phenomenon in a wide range and mostly the done to find impact of shareholder pattern, Board size, chairman duality and CAMAL analysis. However, very little attention has been given to the evaluation of financial and market performance of the Banks both in pre and post M&A situations. In the context of emerging economies like Pakistan still the studies are not enough to cover the purpose of M&A and provide a clear sight for potential investors who want to create a profitable portfolio. Therefore, the problem has been investigated in detail in the current study by selecting factors of financial and market performance current ratio, EPS, size, leverage and expenditure regressed with ROA and Tobbin Q ratio.

Research Question

1. What are the operating performance of banks gone through the process of the strategy of merger and acquisition?
2. What are the market performance of banks gone through the process of the strategy of merger and acquisition?

Research Objective

1. To study the operating performance of banks gone through the process of the strategy of merger and acquisition in Pakistan.
2. To evaluate the market performance of banks gone through the process of the strategy of merger and acquisition in Pakistan.

Methodology

The cross-sectional study conducted using secondary data of the registered banks with Pakistan Stock exchange. The relationship of different variables has been checked on pre and post M&A situation with the operating performance (ROA) and market performance (Tobbin Q).

Population and sample

The study population consists of all the banks utilized M&A strategy in Pakistan. The lists of Bank on PSX are significant in number but for the purpose of convenience the data from 2005 to 2017 has been included in sample due to the ease of availability of data. At the end of collecting data only nine banks has been included in the sample which possessed complete financial and authentic information.

Model Specification

Operating performance

$ROA = \alpha_0 + \alpha_1 CR + \alpha_2 S + \alpha_3 EPS + \alpha_4 \; D/E + \alpha_5 \; CAPEX + \mu_1$

Market performance

Tobin's Q= $\alpha_0 + \alpha_1 CR + \alpha_2 S + \alpha_3 EPS + \alpha_4 \; D/E + \alpha_5 \; CAPEX + \mu_2$

ROA: Return on asset the combination of net income to total assets

CR: Current ratio consists of current assets and current liabilities

S: Size of the Banks having total assets.

EPS: Earning per share ratio between net income after taxes and total shares outstanding
CAPEX: capital expenditure is the value in balance sheet of property plant equipment.
Tobbin Q: the value of physical market value of assets and its replacement cost.

Analysis and Discussion

The analysis of the study has been done using statistical test with the help of Gretl and Eviews. The findings have been listed in the form of tables. In the first phase operating performance results and then in preceding tables market performance results listed. The pattern followed as Descriptive statistics, Variance inflation factor, Collinearity and regression analysis.

Descriptive Statistics

In the appended table descriptive analysis of pre and post M&A listed. From 2005 to 2017 nine banks means value stood for current ratio, CAPEX, Size, leverage, EPS and ROA stood 1.08, 5.68, 17.76, 7.93, 2.23 and 0.59 respectively. While the results of the means value after M&A stood at 1.06, 0.14, 18.19, 32.15, 1.80 and 0.04 for CR, CAPEX, Size, Leverage, EPS and ROA respectively. Standard deviation for ROA in pre M&A resulted 3.66 while post M&A 1.33, show the dispersed data from mean of ROA. The value of post result is less than pre M&A providing evidence of less volatility and authenticity of the performance indicators. Furthermore, standard deviation of CR found 0.09 and 0.11 for pre and posts M&A respectively, upsurge of the result may be the addition of current assets and liabilities of the other bank. Same for other variables in pre and post M&A scenario standard deviation CAPEX 16.07 and 0.59, size 1.99 and 1.69, leverage 5.82 and 48.09, and EPS stood 7.11 and 6.27 respectively. Skeweness of the data is normal within the acceptable range of +2 and -2.

Table 1. Descriptive Statistics

Variables	N	Mean Before	Mean After	Std. Dev. Before	Std. Dev. After	Skewness Before	Skewness After
CR	09	1.089	1.061	0.099	0.119	1.157	-0.621
CAPEX	09	5.686	0.148	16.07	0.598	2.466	2.271
SIZE	09	17.768	18.314	1.996	1.695	-0.192	-0.932
Leverage	09	7.931	32.159	5.823	48.094	0.136	1.282
EPS	09	2.232	1.807	7.110	6.274	1.754	2.008
ROA	09	0.599	0.049	3.661	1.332	0.418	0.001

Collinearity

The regression model in many cases displays the issue of collinearity. The set value by most of the researchers is 70.0% and 50.0% for the correlation amongst the variables (FAROOQ, AKBAR, & ALIM, 2018; Gujarati, 2009). The below table shows the results of correlation having all the values less than 70.0% which prove the data is valid for further analysis.

Table 2. Pearson Correlations before M&A

	CR	CAPEX	Size	Leverage	EPS
CR	1.000				
CAPEX	-0.241	1.000			
Size	-0.398	0.244	1.000		
Leverage	-0.573	-0.091	0.342	1.000	
EPS	0.313	-0.128	0.371	-0.596	1.000

Table 3. Pearson Correlations after M&A

	CR	CAPEX	Size	Leverage	EPS
CR	1.000				
CAPEX	0.6538	1.000			
Size	0.347	-0.1970	1.000		
Leverage	-0.093	-0.2691	0.2502	1.000	
EPS	0.0509	-0.0995	0.3482	-0.3720	1.000

Variance inflation factor is also used for checking and confirming the either the problem of collinearity exists or not. The value for both situations found less than the set range by researcher 10.0. Hence the data is valid for further analysis as along with Pearson correlations VIF also found in the range of 10.0.

Table 4. VIF

Variables	Before M&A	After M&A
CR	1.769	3.013
CAPEX	2.492	2.760
Size	6.202	2.279
Leverage	8.110	1.575
EPS	8.103	1.603

Heteroscedasticity' s

The error has also consider homoscedastic (constant variance), but the problem of heteroscedasticity arise a basic issue when conducting regression analysis. For the checking of the same two tests Breusch Pagan test and white decomposing has been used for the identification of the heteroscedasticity problem (Richard, 2015). Results for both scenarios pre and post M&A found no issue of heteroscedasticity as the P-value of both tests are greater than 0.05 and the data is valid for examination.

Linearity

The used models in the current study have also been linear in parameters and no square root, multiplication and division are found in the model. Natural log for the data in million are used and further analysed as recommended by (Gujarati, 2009). This assumption has been followed throughout the process of data analysis. The relationship of linearity has been defined by (Lewis-Beck, 1995).

Normality

The other assumption considered while using OLS is the normality (Suhla, 2015). Normality test is used for checking that the data is normally distributed or not. Therefore, skewness of the operating and market performance both found in the set range of ±2. Normality of the data has also been checked with the help of Jarque bera test, which is the skewness and kurtosis variance (Thorsten & Herbert, 2004), significant result found proving the model normality.

Result of Regression Analysis

Table 5.

Independent Variable	ROAB		ROAA	
	Coefficient	p-value	Coefficient	p-value
CR	10.509	0.169	−2.357	0.308
CAPEX	0.173	0.014**	−0.933	0.065*
Size	−3.050	0.010**	−0.168	0.209
Leverage	0.837	0.051*	−0.016	0.086*
EPS	0.992	0.015**	0.084	0.025**

, ,*** Significance level at 1%, 05% and 10% respectively*

Table 6. Regression Analyses

Model fitness	ROAB	ROAA
R^2	0.955099	0.940459
F(5, 34)	70.28990	174.2483
Adjusted R^2	0.880263	0.841224
P-value(F)	0.002624	0.000680

The dependency model result listed in table above providing the information regarding the overall variables. Operating performance displayed insignificant relation with current ratio as the P-value results 0.16. On the other side in case of post M&A the result also provided insignificant with P-value of 0.30. Therefore, the operating performance is not impacted by current ratio of the banks gone through M&A decision. Capital expenditure provided significant association with the operating performance in both the cases of M&A as P-value found 0.01 and 0.06. The association before the event of M&A found direct and positive whereas the association after the event changed to inverse and negative.

Size of the banks found negative and significant association having values of -3.05 and P-value of 0.01 respectively. Whereas after the event the result found insignificant providing the statement that size of the banks hasn't influence the operating performance. Debt to equity ratio in relation with operating performance before the event of M&A for the bank found significant and positive as oppose to the after event relation with confirms negative and significant.

EPS found significant and positive with operating performance is the only factor showing same type of result in both cases. In brief, the model fitness also confirmed with the F (P-value) less than 0.05 and the variation of dependent variable explained by independent variables are strong enough to support the research objective because the adjusted R square value for pre and post M&A found 0.95 and 0.94 respectively.

Uche and walter (2005) stated that in post M&As scenarios of different countries like Malaysia, Chile and Nigeria banks operating performance improved. The operating performance effectiveness of U.S banks enhanced but the results found insignificant (Choi & Hamatuck, 2006). Another study done in the context of Australia used different variables like profitability, cash flow, efficiency, leverage and growth of 72 companies.

Lau (2008) in his study done comparison of banks operating performance, the results displayed that the operating performance improved and increased in post M&A. The event of M&A can leads to good operating performance or vice versa (Joshua, 2011) guided in his study regarding how the performance can be improved after the event. On the other hand, in another study it was examined and proved that the performance of Nigerian banks had enhanced and expanded by growth (Olalekan and Adebayo, 2012).

Kemal (2011) assessed the performance of RBS in Pakistan after merger from 2006 to 2009 utilizing different ratios, proposed that the financial indicators in pre-merger were better than post-merger phase. In case of U.S banks the results are also in lines as the banks performed poorly after the event (Delong & Deyoung, 2007)

Market Performance Regression Analysis

Table 7.

Independent Variables	Tobbin Q – Before		Tobbin Q – After	
	Coefficient	p-value	Coefficient	p-value
CR	−10.240	0.068*	−11.646	0.283
CAPEX	−0.0298	0.237	5.209	0.034**
Size	0.368	0.258	−0.535	0.351
Leverage	−0.264	0.095*	0.011	0.569
EPS	−0.142	0.263	0.029	0.664

, **, * Significance at 1%, 5% and 10% level*

Table 8. Regression Analyses

Regression Model Fitness	Model One (Tobbin Q)	Model Two (Tobbin Q)
R^2	0.799	0.884
F(5, 34)	21.942	50.583
Adjusted R^2	0.465	0.693
P-value(F)	0.014	0.004

In comparison with the different financial ratios of the study market performance proxy Tobbin Q provided mix results as: coefficient of current ratio -10.240 and 0.06 as p-value found significant, Capital expenditure -0.029 and 0.23 insignificant, Banks Size ratio found insignificant as coefficient stood 0.36 and p-value 0.25, financial leverage debt to equity found significant as coefficient is -0.26 and p-value 0.09 and EPS the last independent ration provided insignificant results with market performance as coefficient stood -0.14 and p-value 0.26. Adjusted R square was 0.46 the model used data before M&A with fitness of model F (P-value) 0.01.

On the other hand the results after the event of M&A provided that current ratio insignificant (-11.64 and 0.28), Banks size insignificant (-0.53 and 0.35), Capital expenditure significant (5.20 and 0.03), debt to equity insignificant (-0.01 and 0.56) and EPS also insignificant (0.02 and 0.66 coefficient and P-value respectively). Adjusted R square 0.69 and model fitness F (p-value) found 0.00.

After brief introduction to the analysis, it is revealed in in the current study that no significant influence of the independent variables found on market performance of the banks both before and after M&A. Certain studies done using Tobbin Q ratio proposed that the firms having high ratio are acquired by another firms (Jovanovic & Rousseau, 2002). Due to the fact that high value means high replacement cost which is greater than market value of asset. Olalekan and Adebayo (2012) on the other hand, in another study it was examined and proved that the performance of Nigerian banks had enhanced and expanded by growth.

The current study has proposed that the event of merger and acquisition is a very important tool for the banks if therefore board of directors are strong enough to make the decisions in favour of their institution. Due to the fact that if the strategy goes in opposite direction the acquirer will face loss, the debt burden of the banks goes upward, return of assets falls a big question mark on assets efficiency, working capital of both banks combine and are in line with the market trend or not, most important the earning per share effected either in good or bad direction. Some of the advantages and disadvantages are listed below.

First and the most important is the customer's retention and also upsurge it, but this advantage sometime goes in inverse direction. Secondly, new technology and some other IT related activities fill the gap of the acquirer banks deficiencies in the area. Thirdly, unique revenue models and financial products can boost the current income of the acquirer banks but it may also have adverse impact due to the heavy debt burden. Fourthly, the banks efficiency also increased in terms of team and talent because the employees of the banks also become part of the acquirer bank but if the employees are not enough to cope the opportunity and are in fear of losing their current job, a very heavy workload might decline the banks effectiveness at the end. Lastly, in the share market what are the noise trader's behaviour and how are they analysing the event for the acquirer will also the key for survival. If the shares value boosted from the day first the banks strategy of M&A will be considered successful.

Conclusion

The strategy of M&A influences the whole market situation in both ways either good or bad. In conclusion of the current study, the influence of M&A is very clear on the operating performance of the Banks gone through the decision. While no impact has been found on the market performance of the banks which is due to the reason of independent variables, consists of more financial in nature rather than market related variables. Merger and acquisition is a strategy which is made by choice but sometime can impact the overall performance of the firm.

Recommendation for future Study

The appended points should be considered in future for further studying the concept of M&A in terms of financial and market performance:

- More years should be added to the study as to extended and provide more relevant and authentic result.
- Variables like ROS and stock return should also be considered because these variables will provide information of market performance and might be found significant with Tobbin Q ratio.
- The comparison of different stock exchanges should also be considered in future studies.
- Both developing and developed countries should be considered and compared their process and method used for merger and acquisition.
- In the context of large firms taking over other firms of same size or merge with same category should also be considered to find out whether the M&A is a good or bad strategy for the firms.

References

Silveira, A. M., & Dias Jr. A. L. (2010). What is the impact of bad governance practices in a concentrated ownership environment? *International Journal of Disclosure and Governance, 7*, 70-91.

Reese, W., & M, W. (2002). Protection of Minority Shareholder Interests: Cross listings in the United States, and Subsequent Equity Offerings. *Journal of Finance, 52*, 65-104.

Sarkar, J., & Sarkar, S. (2000). Large shareholder activism in corporate governance in developing countries: Evidence from India. *International Review of Finance, 1,* 161-194.

Adams, R. B., Almeida, H., & Ferreira, D. (2005).Powerful CEOs and their impact on corporate performance. *Review of Financial Studies, 18*: 1403–1432.

Ahmed, Muhammad; Ahmed, Zahid; (2014). Mergers and Acquisitions: Effect on Financial Performance of Manufacturing Banks of Pakistan. *Middle-East Journal of Scientific Research 21* (4), 689699.

BEN-AMAR, WALID; and ANDRE, PAUL; (2006). Separation of Ownership from Control and Acquiring Bank Performance: The Case of Family Ownership in Canada. *Journal of Business Finance & Accounting, 33*(3) & (4), 517–543.

C, R., ANDERSON, & REEB, D. M. (JUNE 2003). Founding-Family Ownership and Bank Performance: Evidence from the S&P 500. *THE JOURNAL OF FINANCE, 58*, 1301–1328.

Gaspar, Jose´ Miguel; Massa, Massimo; Matos, Pedro; (2005).Shareholder investment horizons and the market for corporate control. *Journal of Financial Economics 76*, 135–165.

Goranova, Maria; Dharwadkar, Ravi; Brandes, Pamela; (2010). Owners on both sides of the deal: Mergers and Acquisitions and Overlapping Institutional Ownership. *Strategic Management Journal, 31*, 1114–1135.

Guest, P. M. (2008). The determinants of board size and composition: Evidence from the UK. *Journal of Corporate Finance 14*, 51–72.

Heracleous, L. (2001). What is the impact of corporate governance on organizational performance? *An International Review, 9*, 165-173.

Hermalin, B. E., &Weisbach, M. S. (2003). Boards of directors as an endogenously determined institution: A survey of the economic literature. *FRBNY Economic Policy Review*, 4, 7-26.

Jackling, B., &Johl, S. (2009). Board Structure and Bank Performance: Evidence from India's Top Banks. Corporate Governance: *An International Review, 17*, 492-505.

Mak, Y. T., &Yuanto, K. (2005). Size really matters: Further evidence on the negative relationship between board size and bank value. *Pacific-Basin Finance Journal 13*, 301– 318.

Ng, C. (2005).An Empirical Study on the Relationship between Ownership and Performance in a FamilyBased Corporate Environment.*Journal of Accounting, Auditing and Finance, 20*, 121–146.

Oduro, Isaac Marfo; Agyei, Samuel Kwaku; (Vol.4, No.7, 2013). Mergers & Acquisition and Bank Performance: Evidence from the Ghana Stock Exchange. *Research Journal of Finance and Accounting*.

Raheja, C. G. (2005). Determinants of Board Size and Composition: A Theory of Corporate Boards. *Journal of Financial and Quantitative Analysis*, 40, 1-38.

Romano, R. (1992). A guide to takeovers theory, evidence, regulations. *The Yale Journal on Regulation, 9*, pp. 119–180.

Weston, J.F., Mitchel, M.L., Mulherin, J.H. and Salwan, P. (2010). Takeovers, restructuring, and corporate governance. Fourth ed. Delhi: *Pearson Education*.

Wolfe, M., Stressman, S. and Manfredo, M. (2011). The acquisition of IBP by Tyson foods in 2001: pre and post merger financial performance. *American Journal of Agricultural Economics, 93*(2), pp. 1–6.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial Economics, 3*(4), 305-360.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics, 13*(2), 187-221.

Vogt, S. C. (1994). The role of internal financial sources in firm financing and investment decisions. *Review of Financial Economics, 4*(1), 1-24.

Boyan, J and Rouseau, P (2002), The Q-Theory of Mergers, *Technological change*, 92(2).

Faizan, M, Suresh, R and Shahzad, K, (2017) Mergers and Acquisstions: Analysis of Banking sector of Pakistan, *Journal of computational and Theoretical Nanoscience 23*(9): 8947-8950.