

Pre and Post-Merger Impact on Financial Performance: A Case Study of Jordan Ahli bank

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Abstract

This paper attempts to analyze the pre and post-merger impact on financial performance of Jordan Ahli bank. To achieve this aim, two research methods used to compare pre-post-merger financial performance; first, comparison and analysis of ratios are used to compare the performance of Jordan Ahli bank during the pre-merger period (2001-2004) and post-merger period (2006-2009). MS Excel 2010 was used to calculate ratios and SPSS software to analyze. Second, paired sample t-test determines the significance differences in financial performance before and after the merger activity. The results of this study show that 5 Out of 12 ratios (41.67%) significantly improved after the merger to Jordan Ahli bank, while 3 ratios (25%) improved but insignificantly, in the other hand 3 ratios (25%) significantly deteriorated after merger, while 1 ratio (8.33%) insignificantly deteriorated after merger. This shows that merger has improved performance of Jordan Ahli bank with a total percentage (66.67%). On the basis of findings, we concluded that financial performance of merger Jordan Ahli bank insignificantly improved in the post-merger period. Post-merger leverage, efficiency ratios significantly improved, while cash flow ratio insignificantly improved. In addition, liquidity ratios includes 5 ratios, 4 ratios significantly deteriorated after merger except investment to total assets deteriorated but insignificantly, while net credit facilities to total deposits (Gross advances to total deposits) improved but insignificantly.

Keywords: Merger, Banking sector of Jordan, Financial Performance, paired t-test, Jordan

1. Introduction

Going concern is one the fundamental assumptions in accounting on the basis of which financial statements are prepared. Financial statements are prepared assuming that a business entity will continue to operate in the foreseeable future at least within 12 months without the need or intention on the part of management to liquidation, merger or transformation the entity or to significantly reduce its operational activities (Hahn, 2011). These are provided in part eleven in the Jordanian companies' law No. 22 of 1997 and its amendments as of official gazette No. 57 dated 1/11/2006 from article 215 to article 239.

The word selected to define merger depends on the economic purpose of the business transaction, relationship and function between the merging companies. There are many types of Mergers, based on the relationships between the merging parties. In a horizontal merger, one firm acquires another firm that produces and sells a similar product in the same geographic area and thereby eliminates competition between the two firms. In a vertical merger, one firm acquires either a customer or a supplier. A conglomerate merger appears when the merging parties have no evident relationship. In a market extension merger, it is between two companies that deal in the same products but in separate markets. The main purpose of this type of merger is to find out that the merging companies can access to a bigger market and that ensures a bigger portion of customers from market.

The sector of banking is one of the most important instruments of the national development; Jordanian banks are the dominant financial intermediaries in Jordan and have made good progress during the global financial crisis (Al-Fayoumi & Abuzayed, 2009).

The Central Bank of Jordan (CBJ) was established in the late 1950s. The Law of the CBJ was enacted in 1959. In 1/10/1964 its operational procedures were started. The Central Bank of Jordan succeeded the Jordan Currency Board which had been established in 1950. The capital of the Central Bank of Jordan was increased approximately from one million to eighteen million Jordanian Dinars. The CBJ enjoys the status of an independent and autonomous corporate body, although its capital is entirely owned by the government.

The number of licensed banks operating in Jordan increased from 21 to 25 banks between 2000 and 2010; the banking sector includes 16 domestic banks (three of them Islamic banks), 9 foreign bank subsidiaries, Increase has resulted in an increase in the number of banks of foreign banks operating in Jordan from five banks in 2000 to eight banks in 2004, The Central Bank of Jordan granted Licenses to three Foreign Banks in 2004; These banks are: Blom Bank, Bank Audi and National Bank of Kuwait.

The largest five banks in Jordan are the Arab Bank, Housing Bank, Jordan Islamic Bank, Bank of Jordan and Jordan Ahli Bank, together control more than two-thirds of the total assets and three-quarters of total deposits.

On the other hand table 1.1 show the number of local banks dropped from 16 banks to 15 banks in 2005 due to merger of Philadelphia Bank with Jordan National Bank on 12.01.2005, then the number of licensed banks operating in Jordan returned to rise at the end of 2009 after the two banks obtain a license from the Central Bank of Jordan.

Table 1.1: Local and Foreign banks

Year	Local banks		Foreign banks	Total
	Commercial banks	Islamic banks		
2000	14	2	5	21
2001	14	2	5	21
2002	14	2	5	21
2003	14	2	5	21
2004	14	2	8	24
2005	13	2	8	23
2006	13	2	8	23
2007	13	2	8	23
2008	13	2	8	23
2009	13	2	8	23
2010	13	3	9	25

Source: Central Bank of Jordan www.cbj.gov.jo

The banking law which took effect in 2000 is called the “Banking Law of 2000”, and amended in 2003. In general, the banking law addresses many topics:

the organization and management of banks, Islamic banks, bank licensing requirements and conditions for the operation of banks, accounts and financial statements, bank mergers, inspections and auditing, banking confidentiality, liquidation and corrective measures and penalties.

2. Merger in Jordan

Table 2.1 show that in the banking sector in Jordan only one merger case was recorded; merger of Philadelphia Bank with Jordan National Bank on 12.01.2005.

Table 2.1 Merged companies distributed by related sectors

Sector	Number of Merged companies	Merged companies percentage
Industrial	10	43.48%
Financial and Banks	1	4.35%
Services	12	52.17%
Insurance	-	0%
Total	23	%100

* Prepared by author

Jordan Ahli Bank (The name Jordan National Bank fell out of favor by the early 2005 in Jordan after merger) , Jordan Ahli Bank is a leading Jordanian institution, with a steeped national history and heritage. It was founded in 1955 and its main offices are in Amman. Ahli Bank was the sixth public shareholding company to be established in Jordan. Initial capital upon establishment: JD 250,000 (<http://www.ase.com.jo/en/2005>).

Resume trading on the shares of Jordan National Bank as of August 23, 2005. After the merger procedures of Philadelphia Investment Bank in the National Bank were finalized. The bank's capital became 66,050,000 JD. The bank's code (JONB) and numerical code (111033) remains the same. On the other side the Chief Executive Officer (CEO) of Amman Stock Exchange (ASE) has decided to delist the shares of Philadelphia Investment Bank as of August 17, 2005.

According to our knowledge this is the first study in Jordan which measures the performance of Jordanian corporations' mergers before and after the merger, especially in the banking sector, based on accounting data from the merged banks. In this study, we will evaluate pre and post-merger of bank using ratios.

3. LITERATURE REVIEW

There are mainly two approaches are used to evaluate the success of mergers and acquisitions. One is the operational performance approach, either measured through accounting data or through the estimation of cost and profit functions. The other approach explains the impact of merger announcements on the price (stock price) of publicly-listed banking companies.

Ghosh and Jain (2000) the researchers empirically examine whether firms increase financial leverage following mergers. Firms could increase financial leverage either because of an increase in debt capacity or because of unused debt capacity from pre-merger years. They find that financial leverage of combined firms increases significantly following mergers. Gjirja (2003) studied the efficiency impact of mergers and acquisitions in the Swedish banking sector. The purpose of this study is to evaluate the effects of the efficiency of bank mergers in Sweden. In this study a sample of 28 Sweden banks that underwent a merger during the year 1984 to 2002 are taken. This study used the un- balanced panel data analysis technique to test the significance. In addition, the analysis shows that post-merger, have no significant improvement in the technical efficiency of the bank. Sufian

and Abdul Majid (2007) examined the merger's effect on the performance of the Singapore banking sector. In this study sample contains all banks that underwent mergers and acquisition during 1998-2004 in Singapore. In this paper Data Envelop Analysis (DEA) and Tobit regression are used to test the significance. The results suggest that bank profitability has a significant positive impact on the efficiency of banks; on the other hand poor credit quality has a significant negative impact on the performance of banks. Said, Nor, Wah Low and Rahman (2008) analyzed the effect of mergers and acquisitions in the Malaysian banking sector. The aim of this study is to make available proof of the proficiency improvements that banks experienced from the 1998—2004 merger application in Malaysia, and also to assess the performance of banking institutions. In this research a sample of ten Malaysian banks is selected. Three approaches to analyze the impact of mergers are used in this study namely paired sample t-statistics, Data envelopment analysis and regression analysis to test the significance. The results of this study showed that no significant improving in the productive efficiency of merged banks, many studies studied and examines the development of the financial indicators, such as profitability, costs and efficiency measures, based on accounting data for the merged companies before and after the merger. But there are studies like Kemal (2011), Liargovas and Repousis (2011), Vitale and Laux (2012), Ahmed and Ahmed (2014) studied and examines the development of the financial indicators, such as profitability, costs and efficiency measures, based on accounting data for the merged companies before and after the merger. The conclusion of these studies was that overall financial performance of acquiring manufacturing corporations insignificantly improved in after merger period. The liquidity, profitability and capital position insignificantly improved while the efficiency deteriorated in after-merger period

From the studies above we can conclude that performance of the banks is affected by merger. It is examined from various studies that there is improvement in the financial performance of banks post-merger. But some other studies showed that there is no improvement in the financial performance of banks post-merger.

To our knowledge this is the first study in Jordan which measures the performance of Jordanian corporations' mergers before and after the merger, especially in the banking sector, based on accounting data from the merged banks. In this study, we will evaluate pre and post-merger the bank using ratios. Those ratios are used to analyze the financial statements; there are four main groups of ratios for banks:

1. Profitability ratios
2. Liquidity ratios
3. Leverage ratios
4. Cash flow ratio

The following hypothesis is developed Based on the above review of literature:

H_{0a}: There is no improvement in Jordan Ahli bank overall financial performance after merger.

H_{0b}: There is no significant improvement in Jordan Ahli bank overall financial performance after merger.

To achieve the goal of the study the following section presents the methodology and data for our study, using the financial ratios, whether the performance of the bank has been improved through recent mergers.

4. Methodology and data

4.1 Data collection methods

This data collected from two sources, primary sources are selected financial ratios were used to find the impact of mergers. And secondary sources are collected through various journals, review papers, research papers, research articles, published papers of related subject of this study.

4.2 Objectives of the study

The main objectives of this study are:

1. To analyze and evaluate the impact of merger of Jordan Ahli bank on the financial performance.
2. To examine whether merger have improve the performance of Jordan Ahli bank.

4.3 Variables of the study

The dependent variable of this study is merger, and independent variables are the twelve financial ratios. Independent variables are profitability ratios, liquidity ratios, leverage ratios and cash flow ratio.

4.4 Sample size

In the banking sector in Jordan only one merger case was recorded; merger of Philadelphia Bank with Jordan National Bank on 12.01.2005.

5. Analysis and Results

5.1 The capital adequacy ratio

This ratio measures adequacy by the bank held to meet the risks that may be exposed, According to the central bank of Jordan instructed the regulatory capital must be at least 12% (This percentage is considered the minimum

capital adequacy by the Central Bank of Jordan) of assets and risk-weighted items off-balance-sheet items as well as market risk, Figure 1 shows the trend of ratio during the period 2000 - June 2010 but it maintained a comfortable margin above the minimum required by the Central Bank of 12% (in 1997 the CBJ increased the minimum capital adequacy ratio to 12% and in 2003 doubled the minimum capital requirement) and the minimum set by the Basel Committee of 8%. This ratio fell to 15.9 % and this is the lowest level during the ten years (2001-2010) in 2003, and it reached its highest level at the end of 2006 to 21.4%. This significant increase resulted mainly from the most banks increase their capital in 2006, and achieved high profits, which has reflected positively on the capital adequacy ratio. As at the end of June of 2010 the ratio stood at 19.4%, which is close to the figure in the previous year, which amounted to 19.6%.

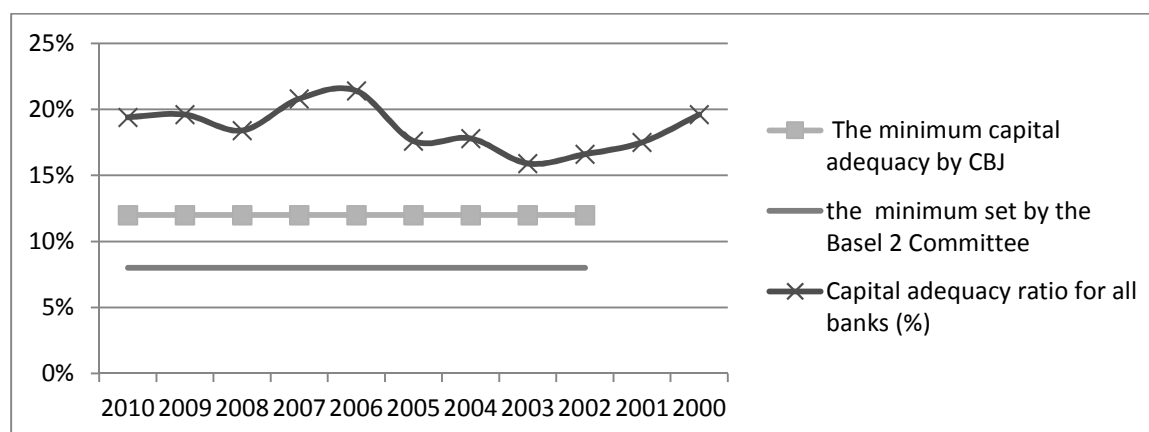


Figure 5.1

The banks maintain a comfortable margin of capital adequacy ratio during the period 2000 - June 2010 over the limit of a required by the Central Bank and the Basel committee to lows, indicating that the banks, in spite of a major expansion, especially in facilities employing, still maintains adequate capital to meet the risks and this enhances the stability of the banking system in particular, and on the financial stability in general.

Table 5.1. Financial Ratios of Jordan Ahli Bank Pre and Post-Merger

	After merger 4 years				Before merger 4 years			
	2009	2008	2007	2006	2004	2003	2002	2001
Efficiency ratios / Profitability ratios								
Return On Assets	0.83 %	0.83 %	0.55 %	1.16 %	0.38 %	0.00%	- 0.27 %	0.01 %
Return On Equity	8.69 %	8.61 %	5.50 %	9.56 %	6.14 %	-0.01%	5.86 %	0.23 %
Interest spread	49.88 %	50.02 %	47.21 %	52.70 %	55.08 %	47.36%	37.31 %	37.71 %
Interest margin	2.59 %	2.84 %	2.91 %	2.44 %	1.89 %	2.03%	1.67 %	2.31 %
Liquidity ratios								
Cash and Cash Equivalent to Total Assets	31.03 %	34.30 %	42.22 %	42.97 %	55.31 %	48.54%	48.30 %	41.36 %
Investment to Total Assets	0.05 %	0.39 %	1.33 %	1.99 %	0.85 %	1.33%	3.65 %	4.86 %
Deposits to Total Assets	67.29 %	65.22 %	62.89 %	62.61 %	83.13 %	81.07%	74.91 %	74.03 %
Total Liabilities to Total Assets (Debt Ratio)	90.42 %	90.36 %	90.01 %	87.78 %	93.83 %	94.39%	95.37 %	94.89 %
Net Credit Facilities to Total Deposits (Gross advances to total deposits)	54.33 %	54.17 %	48.20 %	46.81 %	32.17 %	40.64%	44.25 %	53.93 %
Capital ratios / Leverage ratios								
Capital ratio (Equity Ratio)	9.51 %	9.57 %	9.91 %	12.15 %	6.17 %	5.61%	4.63 %	5.11 %
Total Deposits to Total Equity (Times)	7.07	6.82	6.35	5.15	13.01	13.84	12.78	12.39
Cash flow ratio								
Cash generated from net cash flow from (Used In) operating activities to Profit after tax (Times)	3.92	2.02	10.22	- 10.63	43.62	- 16565.38	- 15.61	620.14

Source: Financial statement of Jordan Ahli Bank retrieved from http://www.ahli.com/Annual_Reports.shtml

Table 5.1 shows the data of various financial ratios of Jordan Ahli Bank. In the pre-merger scenario for the considered 4 years, the following financial ratios return on assets, Return on equity, Interest margin, Investment to total assets, Net credit facilities to total deposits (Gross advances to total deposits) and capital ratio (Equity Ratio) showed increasing trend for the considered period.

In the post-merger scenario, it was observed that Interest spread and Cash and Cash Equivalent to total assets showed decreasing trend for the considered period but deposits to total assets, Total liabilities to total assets (Debt Ratio), Cash generated from net cash flow from (Used In) operating activities to profit after tax and cash generated from net cash flow from (Used In) operating activities to profit after tax showed a mixed trend.

5.2 Statistical tools used

Paired sample t-test is a statistical technique that is used to compare two population means in the case of two samples (useful when you have two interval/ratio variables) that are correlated. Paired sample t-test is used in between the 'before-after' or 'pre and post' studies, or when the samples are the matched pairs, or when it is a case-control studies.

Table 5.2 Analysis of Financial Ratios of Jordan Ahli Bank

Financial ratios	Status	Mean	Standard deviation	t-value	p-value Sig (2-Tailed)
Efficiency ratios / Profitability ratios					
Return On Assets	Pre-merger	.097	.188	11.306	.001*
	Post-merger	.842	.249		
Return On Equity	Pre-merger	1.937	2.812	-5.187	.014*
	Post-merger	8.090	1.779		
Interest spread	Pre-merger	4.436	8.521	-1.403	.255
	Post-merger	4.995	2.242		
Interest margin	Pre-merger	1.975	.268	-3.716	.034*
	Post-merger	2.695	.218		
Liquidity ratios					
Cash and Cash Equivalent to Total Assets	Pre-merger	4.837	5.696	6.492	.007*
	Post-merger	3.763	5.894		
Investment to Total Assets	Pre-merger	2.672	1.903	1.250	.300
	Post-merger	.940	.884		
Deposits to Total Assets	Pre-merger	7.828	4.499	4.170	.025*
	Post-merger	6.450	2.195		
Total Liabilities to Total Assets (Debt Ratio)	Pre-merger	9.462	.661	12.975	.001*
	Post-merger	8.964	1.254		
Net Credit Facilities to Total Deposits (Gross advances to total deposits)	Pre-merger	4.274	9.011	-2.740	.071
	Post-merger	5.087	3.935		
Capital ratios / Leverage ratios					
Capital ratio (Equity Ratio)	Pre-merger	5.380	.661	-	.001*
	Post-merger	10.28	1.255		
Total Deposits to Total Equity (Times)	Pre-merger	1.300	.612	10.976	.002*
	Post-merger	6.347	.852		
Cash flow ratio					
Cash generated from net cash flow from (Used In) operating activities to Profit after tax (Times)	Pre-merger	1.725	298.705	1.123	.343
	Post-merger	4.545	3.887		

Note: *Significant at 5%

Table 5.2 presents the descriptive statistics and analysis of the various ratios of Jordan Ahli Bank. The average ratios of return on assets, Return on equity, Interest spread, Interest margin, Net credit facilities to total deposits (Gross advances to total deposits), Total deposits to total equity and cash generated from net cash flow from (Used In) operating activities to Profit after tax of post-merger was found to be more compared before merger. This indicates that in the post-merger scenario the financial performance of the Jordan Ahli Bank has improved in terms of these ratios. However, the mean ratios of cash and cash equivalent to total assets, Investment to total assets, Total liabilities to total assets (Debt Ratio) and capital ratio (Equity Ratio) of post-merger were found to be less compared to pre-merger.

To test whether there is significant difference in the financial ratios pre and post-merger, paired t-test is applied using SPSS. The summary of the analysis presented in table 5.2 Return on assets, Return on equity, Interest margin, Capital ratio (Equity Ratio) and total deposits to total equity the p-value is less than 5 percent, it can be concluded that this ratios improved significantly after merger with a total percentage of 41.67% (table 5.3), The results are associated with the findings of Sufian and Abdul Majid (2007) and Ghosh and Jain (2000). For Interest spread, Net credit facilities to total deposits (Gross advances to total deposits) and cash generated from net cash flow from (Used In) operating activities to profit after tax improved but insignificantly and the p-value was greater

than 5 percent, these results are associated with the findings of Kemal (2011), Liargovas and Repousis (2011), Vitale and Laux (2012 and Ahmed and Ahmed (2014). Cash and cash equivalent to total assets, Deposits to total assets and total liabilities to total assets (Debt Ratio) significantly deteriorated because the p-value is less than 5 percent, Investment to total assets deteriorated but insignificantly, and the p-value was greater than 5 percent, this result is associated with the findings of Gjirja (2003).

Table 5.3 Total ratios comparison

Group of Ratios	Total number of ratios calculated	Number of significantly improved ratios post-merger	Number of significantly deteriorated ratios post-merger	Number of insignificantly improved ratios post-merger	Number of insignificantly deteriorated ratios post-merger
Efficiency Ratios (Profitability Ratios)	4	3	0	1	0
Liquidity Ratios	5	0	3	1	1
Capital/Leverage Ratios	2	2	0	0	0
Cash flow ratio	1	0	0	1	0
Total	12	5	3	3	1
Percentage	100%	41.67%	25%	25%	8.33%

Table 5.3 shows that the 4 efficiency ratios (Profitability ratios) improved significantly except interest spread ratio improved but insignificantly. Liquidity ratios include 5 ratios, 4 ratios significantly deteriorated after merger except investment to total assets deteriorated but insignificantly, while Net credit facilities to total deposits (Gross advances to total deposits) improved but insignificantly. The capital (leverage ratios) includes two ratios both ratios improved significantly. The last group of ratios includes one ratio net cash flow from (Used In) operating activities to profit after tax improved but insignificantly.

Out of 12 ratios it is clear that 5 ratios (41.67%) significantly improved after the merger to Jordan Ahli bank, while 3 ratios (25%) improved but insignificantly, in the other hand 3 ratios (25%) significantly deteriorated after merger, while 1 ratio (8.33%) insignificantly deteriorated after merger. This shows that merger has improved the performance of Jordan Ahli bank with a total percentage (66.67%). We would reject H_{0a} hypothesis and accept the alternative hypothesis at a significance level of 0.05. Based on the results showed in table 5.3 we accept H_{0b} "There is no significant improvement in Jordan Ahli bank overall financial performance after merger" except efficiency ratios (Profitability ratios) improved significantly and the capital (leverage ratios) include two ratios both ratios improved significantly.

6. CONCLUSION

Merger is in the present time more important than ever, especially in financial sectors. In this study post-merger performance analysis of Jordan Ahli Bank in Jordan was discussed. In this study it was seen that post-merger of Philadelphia Bank with Jordan National Bank (Jordan Ahli Bank), Among the Jordan five largest banks, the Arab Bank is the most in total, while the Housing Bank places second. Jordan Islamic Bank comes third, followed by the Bank of Jordan and Jordan Ahli Bank. Together control more than two-thirds of the total assets and three-quarters of total deposits. For this purpose a hypothesis was developed which is "There is a significant improvement in Jordan Ahli bank overall financial performance after merger". In this regard key financial data was taken from the website of Jordan Ahli bank.

The financial ratios are the analytical tool used to examination of financial performance of businesses pre and post-merger of Jordan Ahli bank during the before merger period (2001-2004) and the after merger period (2006-2009). In addition, Paired sample t-test is used in this study.

Total 12 ratios are applied which are efficiency/profitability ratios, liquidity ratios, and capital/leverage ratios, cash flow ratio. Out of 12 ratios it is clear that 8 ratios (66.67%) are in favor of post-merger Jordan Ahli bank and 4 ratios (33.33%) are in favor of pre-merger. This shows that merger has improved the performance of Jordan Ahli bank. We would reject H_{0a} hypothesis and accept the alternative hypothesis at a significance level of 0.05. Based on the results showed in table 5.3 we accept H_{0b} "There is no significant improvement in Jordan Ahli bank overall financial performance after merger" at a significance level of 0.05 except efficiency ratios (Profitability ratios) improved significantly and the capital (leverage ratios) include two ratios both ratios improved significantly.

7. Limitations of the study

The limitations of the study are:

1. Only merger's effect was seen on Jordan Ahli Bank.

2. This study does not include any other corporate sector of the economy.
3. Limited ratios are applied.

8. Recommendations:

On the base of this research, we recommended for future *researches in Jordan* that other sectors must be evaluated to compare these sectors together to conclude which sector has the most significant impact after merger. Also we recommended that the number of financial ratios must be increased.

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