DO MERGERS AFFECT THE FINANCIAL PERFORMANCE?

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ABSTRACT
This study extends the research on the effect of mergers on the financial performance. Studying the impact of merger on the financial performance of companies enables them to deal with merger in a better way, take advantage from it, and exploit it in the best ways to achieve its purposes. This study describes the effects of mergers in the industry sector in Jordan. The study analyzes these effects financially, to compare the financial performance of the companies before and after the merger. Three hypotheses examining the effect of mergers on the liquidity ratios, profitability ratios and financial leverage ratios are presented in this study. Two listed corporations from Amman Stock Exchange are analyzed. The results do not provide insights into the ability of merger in improving the financial performance. First, we find that, compared with pre-merger, post-merger liquidity ratios has mixed results. In other words, the findings are not able to support the first hypothesis. Second, we find that, for most ratios, compared with pre-merger, post-merger profitability ratios are not improved for the acquirer corporations. The findings lead us to reject the second hypothesis. The reason for that may due to that the acquirer corporations need more time to be able to improve profitability ratios. Finally, compared with pre-merger, the post-merger financial leverage ratios have mixed results. This means that the results do not support the third hypothesis. The results of this study are considered important to investors and creditors. The results do not encourage investors and creditors, at least in Jordan, doing mergers because financial performance of the companies after the merger, compared to pre-merger, does not improved.

KEYWORDS: Mergers, Financial Performance, Liquidity Ratios, Profitability Ratios, Financial Leverage Ratios.

INTRODUCTION
The world has witnessed a lot of growth stories through mergers and acquisition deals. At this time, companies are experiencing major expansion in terms of size, operations and scale. Mergers deals are found in various sectors like banking, industry, insurance, and finance. In Jordan, mergers are not a common that is noticed often. Merger is considered the second solution step for rescuing companies from bankruptcy. This study tries to evaluate the financial performance of Jordanian's companies after the mergers deals.

Mergers have become a common strategy to consolidate business. The basic aim is to reduce cost, reap the benefits of economies of scale, and to expand market share. There are two major common types of business combination; acquisition, in which one corporation acquires control over the operations of another entity, and merger, in which one corporation takes over the operations of another entity and that entity goes out of existence.

The purpose of the study is to investigate and analyze the importance of mergers in the industrial sector in Jordan during the period 2005 - 2013. The study tests the effects of mergers on the companies' financial performance. It examines the impact of mergers on liquidity, profitability, and financial leverage of listed corporations in Amman stock exchange. The effects of mergers on the companies' financial performance in the industrial sectors are rarely examined in the previous literature and their results are mixed.

LITERATURE REVIEW
Kumar (2009) examines the post-merger operating performance of acquiring companies involved in merger activities during the period 1999-2002 in India. The author attempts to identify synergies, if any, resulting from mergers. The paper uses the operating performance approach, which compares the pre-merger and post-merger performance of companies using accounting data to examine merger related gains to the acquiring firms. The author finds that the post-merger profitability, assets turnover and solvency of the acquiring companies, on average, show no improvement when compared with pre-merger values. So it seems that, contrary to common beliefs and expectations, mergers usually do not lead to improve the acquirer's financial performance. The results show that mergers are not aimed at maximizing wealth of owners. This result suggests the need for managers to better focus on post-merger integration issues in order to create merger-induced synergies, rather than simply acquiring bigger size and achieve hidden objectives.

Saini and Singla (2012) study the impact of mergers and acquisitions activity on the corporate performance. When tested on the 13 sample firms from Indian Textile industry, the authors find that there has been significant
deterioration in the profitability position of these companies in the post-merger period. Finally, on applying the 49 days event window, it is observed that the shareholders of acquirer firm has witnessed a falling cumulative average abnormal return around the merger announcement period, thus indicating that even the stock market has not responded favorably to these companies' merger decisions.

Ravenscraft and Scherer (1989) test the hypothesis that the post-merger profits are higher than pre-merger profits but did not find any improvement in the post-merger operating performance in the sample companies.

Ming and Hoshino (2000) in their research conducted on 20 Taiwanese mergers find that merger announcement had a positive impact on shareholders wealth. However, the study could not find any improvement in the post-merger corporate performance.

Ramaswamy and Waegelein (2003) examine a sample of 162 merging firms of U.S during the period of 1975-90. Researchers selected industry-adjusted cash flow returns on market value of assets as the performance criteria. The study reports an improvement in the post-merger operating financial performance, measured by industry-adjusted return on assets for the full sample.

Pazarskis et al. (2006) examine the operating performance for three years before and after the merger for acquiring firms in Greece in the period of 1998 to 2002. They find that, in the post-merger period, the firms have shown a slight decline in their gross profit margin while the liquidity ratios have not shown any decline in the same period. Solvency ratios, that is, net worth/total assets and total debt/net worth also decreased slightly during the post-merger period.

Ye (2013) studies Merger and Acquisition (M&A) impacts on U.K., construction firms by analyzing their operating performances after acquisition. Depends on statistic analysis of operating cash flow returns, the effect of acquisition on the construction companies were discussed. Generally, he finds that M&A transactions have negative impact on firms’ operating performance. Ye (2013) also compares the relationship between operating performance and diversifying strategies, which are related diversification and unrelate diversification. Significant negative relationship is observed in unrelated diversification samples, whereas insignificant connection is found within the related diversified firms.

Rahman and Limnack (2004) examine financial performance of a sample of 94 Malaysian companies that had made acquisitions during 1988-1992. They take operating cash flow returns for their research and find that financial performances have improved significantly following the acquisition.

Choi and Harmatuck (2006) studies the actual operating performance of the mergers and acquisitions observed during 1980-2002 in the construction industry in the United States of America utilizing various statistical tools and longitudinal data analysis modeling techniques. Their findings are as follows: First, the level of synergistic gains, measured as operating cash flow returns, is not improved significantly after firm integration. Second, regarding the management wealth maximization hypothesis, the size of firms dramatically increased after the integration of the firms, and the operating performance is slightly improved compared with that before the event. Research outcomes also indicated that stock market returns on M&A are consistent with the long-term operating performance, and thus supported the market efficiency hypothesis. Lastly, M&A guidelines for the construction industry are presented based on the research outcomes from both stock market return and operating performance analysis.

Yagil (1980) identifies and analyzes various financial effects of pure conglomerate mergers and provides an empirical examination of these effects. He finds that the expected gain from the merger is positive for both the acquiring and acquired firms. The share of the acquired firms in the total gain, particularly if involved in a "cash" merger, seems to be greater than half. The findings also indicate that conglomerate mergers may indeed be motivated by the self interest of management. Shim (2011) addresses whether corporate coinsurance arising from a merger affects the wealth of stockholders and bondholders. It also investigates whether corporate coinsurance provides a rationale for conglomerate mergers. The results indicate that conglomerate mergers of high bidder and target marginal tax rates enhance the stock value of both bidder and target firm around merger announcements and that diversified firms realize this coinsurance benefit by reducing cash holdings rather than increasing financial leverage.

Healy et al. (1992) examine on the basis of return on assets the post-merger performance of 50 largest US mergers. They also evaluate stock returns at the acquisition announcements. On the basis of their observations, they conclude that merged firms had shown significant improvements in operating performance along with abnormal stock returns at the acquisition announcements.

Dickerson et al. (1997) investigate the impact of acquisitions on company’s performance by using a large panel of UK companies during 1948-77. The study finds that both in the short-run and in the long-run, acquisitions had a negative impact on their profitability.

Sharma and Jonathan (2002) find that corporate acquisitions had not led to significant post-acquisition improvement in operating performance of the acquiring Australian firms during the period 1986-91. The study also find that the type of acquisition (conglomerate versus
non-conglomerate) and the form of acquisition financing (cash, share or a combination of two) had not significantly influenced the post acquisition performance. In general the results in literature review find mixed results related to the idea that mergers improve the financial performance of the companies.

**HYPOTHESES DEVELOPMENT**

1. **Liquidity Ratios**: liquidity ratios measure the company's ability to pay its short term obligations. When a merger happens between two corporations, the acquirer corporation becomes larger than before. So, we assume that liquidity ratios will improve. Thus, based on above, the hypotheses for liquidity ratios can be stated in alternative forms as follows:

\[ H_{1A} \]: Compared with pre-merger liquidity ratios, the post-merger liquidity ratios are improved for the acquirer corporation.

2. **Profitability Ratios**: profitability ratios are measured based on the amounts of profit generated by the company as a percentage of the sales generated. When a merger happens between two corporations, the acquirer corporation will get an additional or new source of income. As a result, we assume that profitability ratios will improve. Thus, based on above, the hypotheses for profitability ratios can be stated in alternative forms as follows:

\[ H_{2A} \]: Compared with pre-merger profitability ratios, the post-merger profitability ratios are improved for the acquirer corporation.

3. **Financial Leverage Ratios**: A company's leverage relates to how much debt it has on its balance sheet, and it is another measure of financial health. Generally, the more debt a company has, the riskier its stock is, since debt-holders have first claim to a company's assets. When a merger happens between two corporations, the total equity will increase for the acquirer company. So, we assume that financial leverage will improve. Thus, based on above, the hypotheses for financial leverage can be stated in alternative forms as follows:

\[ H_{3A} \]: Compared with pre-merger financial leverage, the post-merger financial leverage is improved for the acquirer corporation.

**HYPOTHESES TESTING**

The hypotheses are tested by comparing the pre-merger liquidity ratios, profitability ratios and financial Leverage ratios with the post-merger. Compared with pre-mergers, improving the ratios of post-mergers means that the financial performance of the corporations is improved, which means that mergers are adding value to investors.

**EMPIRICAL RESULTS**

**Data**

Table 1 shows the five mergers that have been occurred in Amman Stock Exchange during the period 2005 to 2013. We study two cases. First, the merger between Al Dulayl Industrial park Company with Middle East Agriculture and Trading. We have selected this case because the data needed is available. Second, the merger between General Investments with Arabian Beer Manufacturing Company. We have selected this case for the same reason of the first one. We exclude the other three mergers. The merger between Industrial Commercial and Agriculture Co. with Jordan Sulpho-Chemicals Co. was on June 16, 2013. The reason for excluding this merger from this study is the unavailability of the financial statements for the year ended 2014. The merger between Union Tobacco and Cigarette Industries with Union Advanced Industries was on December 30, 2013. The reason for excluding this merger from this study is the unavailability of the financial statements for the year ended 2014. The merger between Arab-German Insurance Company with Al-Basma Trading Company was on April 30, 2007. The reason for excluding this merger from this study is that the financial statements for this company were not comparable with our two samples since the acquirer is an insurance company while the acquirer of our two samples is manufacturing companies.

<table>
<thead>
<tr>
<th>Number</th>
<th>Acquirer Company</th>
<th>Acquired Company</th>
<th>Company after merger</th>
<th>Merger date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Al Dulayl Industrial Park</td>
<td>Middle East Agriculture and Trading</td>
<td>Al Dulayl Industrial Park and Real Estate</td>
<td>July 1, 2007</td>
</tr>
<tr>
<td>3</td>
<td>Arab-German Insurance and Agriculture</td>
<td>Al-Basma Trading Company</td>
<td>Arab-German Insurance</td>
<td>April 30, 2007</td>
</tr>
<tr>
<td>4</td>
<td>Industrial Commercial and Agriculture</td>
<td>Jordan Sulpho-Chemicals</td>
<td>Industrial Commercial and Agriculture</td>
<td>June 16, 2013</td>
</tr>
<tr>
<td>5</td>
<td>Union Tobacco and Cigarette Industries</td>
<td>Union Advanced Industries</td>
<td>Union Tobacco and Cigarette Industries</td>
<td>Dec. 30, 2013</td>
</tr>
</tbody>
</table>

The analysis in this paper consists of two companies, Al Dulayl Industrial Park and Real Estate and General Investments. Table 2 shows the selected account balances as they appear on (at end of) the financial statements of General Investments for the years 2005 to 2009. Table 3 shows the selected account balances as they appear on (at end of) the financial statements of General Investments for the years 2006 to 2010.
Financial Analysis

Table 2 shows the selected account balances as they appear on (at the end of) the financial statements of Al Duleyj Industrial park and Real Estate Company for the years 2005 and 2006 (two years before mergers), 2007 (the year of merger), 2008 and 2009 (two years after merger). We exclude analyzing the year of merger results because the merger occurred during the year (part of the year is before merger and the other part is after merger).

Table 2: selected account balances for Al Duleyj Industrial park and Real Estate Company for the years 2005-2009 *

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>1,588,785</td>
<td>2,008,760</td>
<td>9,621,967</td>
<td>5,752,465</td>
<td>2,714,975</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>2,552,042</td>
<td>2,471,507</td>
<td>2,730,987D</td>
<td>4,208,385</td>
<td>1,307,875</td>
</tr>
<tr>
<td>Cash and equivalents</td>
<td>71,725</td>
<td>29,397</td>
<td>8,373,250</td>
<td>3,447,996</td>
<td>499,661</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>1,010,904</td>
<td>435,303</td>
<td>(431,340)</td>
<td>506,246</td>
<td>(1,124,094)</td>
</tr>
<tr>
<td>Total Assets</td>
<td>23,632,620</td>
<td>23,640,012</td>
<td>65,497,499</td>
<td>59,789,300</td>
<td>57,489,968</td>
</tr>
<tr>
<td>Total Equity</td>
<td>14,305,278</td>
<td>14,740,581</td>
<td>57,843,203</td>
<td>54,295,125</td>
<td>53,171,031</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>1,006,691</td>
<td>1,136,747</td>
<td>766,525</td>
<td>864,730</td>
<td>669,465</td>
</tr>
<tr>
<td>Net Sales</td>
<td>1,066,871</td>
<td>1,213,614</td>
<td>818,823</td>
<td>916,795</td>
<td>704,299</td>
</tr>
<tr>
<td>Inventory</td>
<td>2,100</td>
<td>40,331</td>
<td>45,398</td>
<td>42,865</td>
<td>35,629</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>9,327,342</td>
<td>8,899,431</td>
<td>7,654,296</td>
<td>5,494,775</td>
<td>4,318,937</td>
</tr>
<tr>
<td>Weighted Average Number of Shares</td>
<td>12,985,000</td>
<td>14,000,000</td>
<td>21,000,000</td>
<td>21,000,000</td>
<td>21,000,000</td>
</tr>
</tbody>
</table>

* All numbers are in Jordanian Dinars except the Weighted Average Number of Shares.

Table 3 shows the selected account balances as they appear on (at end of) the financial statements of General Investments for the years 2006 and 2007 (two years before merger), 2008 (the year of merger), 2009 and 2010 (two years after merger).

Table 3: selected account balances for General Investments for the years 2006-2010 *

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>6,365,427</td>
<td>7,255,047</td>
<td>6,641,722</td>
<td>6,214,947</td>
<td>7,945,702</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>1,950,576</td>
<td>2,466,800</td>
<td>2,239,748</td>
<td>2,137,348</td>
<td>2,189,839</td>
</tr>
<tr>
<td>Cash and equivalents</td>
<td>1,346,887</td>
<td>2,688,571</td>
<td>1,357,562</td>
<td>1,695,166</td>
<td>2,860,975</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>2,227,996</td>
<td>2,007,832</td>
<td>1,964,563</td>
<td>1,230,667</td>
<td>2,725,336</td>
</tr>
<tr>
<td>Total Assets</td>
<td>25,553,112</td>
<td>29,944,693</td>
<td>27,354,793</td>
<td>26,101,483</td>
<td>26,781,428</td>
</tr>
<tr>
<td>Total Equity</td>
<td>23,383,733</td>
<td>27,133,709</td>
<td>24,894,014</td>
<td>23,818,444</td>
<td>24,591,599</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>3,100,516</td>
<td>3,290,120</td>
<td>2,934,185</td>
<td>2,880,552</td>
<td>4,012,418</td>
</tr>
<tr>
<td>Net Sales</td>
<td>8,662,332</td>
<td>9,364,281</td>
<td>11,908,587</td>
<td>11,259,765</td>
<td>11,731,970</td>
</tr>
<tr>
<td>Inventory</td>
<td>1,621,604</td>
<td>2,090,549</td>
<td>2,581,073</td>
<td>2,428,706</td>
<td>2,872,555</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>2,610,379</td>
<td>2,810,983</td>
<td>2,460,779</td>
<td>2,285,039</td>
<td>2,189,829</td>
</tr>
<tr>
<td>Weighted Average Number of Shares</td>
<td>10,000,000</td>
<td>10,000,000</td>
<td>10,000,000</td>
<td>10,000,000</td>
<td>10,000,000</td>
</tr>
</tbody>
</table>

* All numbers are in Jordanian Dinars except the Weighted Average Number of Shares.

The above selected balances have been chosen because of their direct effect on the liquidity ratios, profitability ratios, and financial leverage ratios.

Liquidity Ratios

Table 4 shows the liquidity ratios for Al Duleyj Industrial park and Real Estate Company for the years 2005 and 2006 (two years before merger), 2007 (the merger year), 2008 and 2009 (two years after merger).

Table 4: liquidity ratios for Al Duleyj Industrial park and Real Estate Company

<table>
<thead>
<tr>
<th>Liquidity Ratios</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>0.71</td>
<td>0.84</td>
<td>3.52</td>
<td>1.36</td>
<td>2.07</td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>0.704</td>
<td>0.79</td>
<td>3.5</td>
<td>1.35</td>
<td>2.04</td>
</tr>
<tr>
<td>Cash Ratio</td>
<td>0.14</td>
<td>0.19</td>
<td>3.06</td>
<td>0.81</td>
<td>0.38</td>
</tr>
<tr>
<td>Net Working capital</td>
<td>(664,257)</td>
<td>(462,747)</td>
<td>6,890,979</td>
<td>1,544,080</td>
<td>1,407,100</td>
</tr>
</tbody>
</table>

Table 5 shows the liquidity ratios for General Investments for the years 2006 and 2007 (two years before merger), 2008 (the merger year), 2009 and 2010 (two years after merger).

Table 5: liquidity ratios for General Investments

<table>
<thead>
<tr>
<th>Liquidity Ratios</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>3.46</td>
<td>3.23</td>
<td>2.96</td>
<td>2.90</td>
<td>3.62</td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>2.60</td>
<td>1.80</td>
<td>1.36</td>
<td>1.77</td>
<td>2.32</td>
</tr>
<tr>
<td>Cash Ratio</td>
<td>1.01</td>
<td>1.01</td>
<td>0.60</td>
<td>0.79</td>
<td>1.21</td>
</tr>
</tbody>
</table>
1. Current ratio

The concept behind this ratio is to ascertain whether a company's short-term assets (cash, cash equivalents, marketable securities, receivables and inventory) are readily available to pay off its short-term liabilities (notes payable, current portion of term debt, payables, accrued expenses and taxes). In general, the shorter the operating cycle, the lower the current ratio, and the longer the operating cycle, the higher the current ratio. The comparison of the firm's current ratio with prior periods will help to determine if the ratio is high or low, but these comparisons do not indicate why it is low or high. Possible reasons can be found from an analysis of the individual current assets and current liabilities accounts. Often, the major reasons for the current ratio being out of line will be found in a detailed analysis of accounts receivables and inventory. Generally, companies would aim to maintain a current ratio of at least 1 to ensure that the value of their current assets cover at least the amount of their short term obligations. Acceptable current ratios vary from industry to industry and are generally between 1.5 and 3 for healthy businesses.

On evaluating the current ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger current ratios were lower than the post-merger current ratio. In 2005, it was 0.71 and in 2006, it went up to 0.81. In 2008, it increased to 1.36 and in 2009, it increased to 2.07. This indicates that the current ratio has been significantly improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the current ratio of General Investments before and after the merger, we find that pre-merger current ratios were higher than the post-merger current ratio. In 2006, it was 3.46 and in 2007, it decreased to 3.23. In 2009, it decreased to 2.9 and in 2010, it increased to 3.62. This indicates that the current ratio has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the current ratio has mixed results after merger compared to pre-merger (improved for one company and not improved for the other one).

2. Quick ratio

The quick ratio measures a company's ability to meet its short-term obligations (current liabilities) with its most liquid assets. It excludes inventory and other current assets, which are more difficult to turn into cash. Therefore, a higher ratio means a more liquid current position of the company. Generally, the acceptance quick ratio is between 1 and 2 for healthy businesses.

On evaluating the quick ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger quick ratios are lower than the post-merger quick ratio. In 2005, it was 0.704 and in 2006 it increased to 0.79. In 2008, it increased to 1.35 and in 2009, it increased to 2.04. This ratio means that the company has 2.04 JD of liquid assets available to cover each 1 JD of current liabilities. This indicates that the quick ratio has been significantly improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the quick ratio of General Investments before and after the merger, we find that the quick ratios are higher than the post-merger quick ratios. In 2006, it was 2.6 and in 2007 it decreased to 1.8. In 2009, it decreased to 1.77 and in 2010, it increased to 2.31. This ratio means that the company has 2.31 JD of liquid assets available to cover each 1 JD of current liabilities (2.31:1). This indicates that the quick ratio has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the quick ratio has mixed results after merger compared to pre-merger (improved for one company and not improved for the other one).

3. Cash ratio

The best indicator of the company's short-run liquidity is the cash ratio; it indicates the immediate liquidity of the firm. A high cash ratio indicates that the firm is not using its cash to its best advantage; a cash ratio that is too low could indicate an immediate problem with paying bills. A cash ratio of 1.00 and above means that the business is able to pay all its current liabilities in immediate short term. Therefore, creditors usually prefer high cash ratio. But businesses usually do not plan to keep their cash and cash equivalent at level with their current liabilities because they can use a portion of idle cash to generate profits. This means that a normal value of cash ratio is somewhere below 1.00.

On evaluating the cash ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger cash ratios are lower than the post-merger cash ratio. In 2005, it was 0.14 and in 2006, it increased to 0.19. In 2008, it increased to 0.81 and in 2009, it decreased to 0.38. This indicates that the cash ratio has been significantly improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the cash ratio of General Investments before and after the merger, we find that pre-merger cash ratios are higher than the post-merger cash ratio. In 2006, it was 1.61 and in 2007 it increased to 1.08. In 2009, it decreased to 0.79 and in 2010 it increased to 1.31. This indicates that the cash ratio has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the cash ratio has mixed results after merger compared to pre-merger (improved for one company and not improved for the other one).

4. Net working capital

This ratio indicates the short run solvency of the business, and to determine if working capital is reasonable or not. The working capital amount should be compared with past amounts, if the working capital appears to be out of line, the reasons should be found by analyzing the individual current assets and current liabilities accounts. A high working capital can be a signal that the company might be able to expand its operations. Negative working
capital means that the business currently is unable to meet its short-term liabilities with its current assets.

On evaluating the net working capital of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger net working capitals are lower than the post-merger net working capital. In 2005 and 2006 the net working capital were negative, (664,257) and (462,747) respectively. In 2008, it increased to 1,544,080 due to an increase in its liabilities, and in 2009, it decreased to 1,407,100. This indicates that the net working capital has been significantly improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the net working capital of General Investments before and after the merger, we find that pre-merger net working capitals are higher than the post-merger net working capital. In 2006, it was 4,814,851 and in 2007 it decreased to 4,788,247. In 2009, it decreased to 4,077,749 and in 2010, it increased to 5,755,873. This indicates that the net working capital has been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). In summary, we find that the net working capital has been improved after merger compared to pre-merger.

Table 6: Profitability ratios for Al Dulayl Industrial park and Real Estate Company

<table>
<thead>
<tr>
<th>Profitability Ratios</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets</td>
<td>4%</td>
<td>1%</td>
<td>(0.9)%</td>
<td>0.8%</td>
<td>(1)%</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>7%</td>
<td>2%</td>
<td>(1)%</td>
<td>0.9%</td>
<td>(2)%</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>94.3%</td>
<td>93.6%</td>
<td>93.6%</td>
<td>94.3%</td>
<td>90.2%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>94.7%</td>
<td>35.8%</td>
<td>(52.6)%</td>
<td>55.2%</td>
<td>(151.8)%</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>0.07%</td>
<td>0.031</td>
<td>(0.0205)</td>
<td>0.024</td>
<td>(0.11)</td>
</tr>
</tbody>
</table>

Table 7: Profitability ratios for General Investments for the years 2006 and 2007 (two years before merger), 2008 (the year of merger), 2009 and 2010 (two years after merger).

<table>
<thead>
<tr>
<th>Profitability Ratios</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets</td>
<td>8%</td>
<td>7%</td>
<td>6%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>9%</td>
<td>8%</td>
<td>7%</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>35.7%</td>
<td>35.1%</td>
<td>24.6%</td>
<td>25.6%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>25.6%</td>
<td>21.4%</td>
<td>16.4%</td>
<td>10.9%</td>
<td>23.2</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>0.223</td>
<td>0.201</td>
<td>0.196</td>
<td>0.123</td>
<td>0.27</td>
</tr>
</tbody>
</table>

1. Return on Assets (ROA)
This ratio indicates how profitable a company is relative to its total assets. The return on assets (ROA) ratio illustrates how well management is employing the company's total assets to make a profit. The higher the return, the more efficient management is in utilizing its asset base. As a rule of thumb, investment professionals like to see a company's ROA come in at no less than 5%. Of course, there are exceptions to this rule.

On evaluating the ROA ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger ROA ratios are higher than the post-merger ROA ratio. In 2005, it was 4% and in 2006, it decreased to 1%. In 2008, it decreased to 0.8% and in 2009, it decreased to be negative (1)%. This indicates that the ROA has not been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the ROA ratio for General Investments before and after merger, we find that pre-merger ROA ratios are similar on average compared to post-merger ROA ratios. In 2006, it was 8% and 2007, it decreased to 7%. In 2009, it decreased to 5% and in 2010, it increased to 10%. This indicates that the ROA has been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the ROA has mixed results after merger compared to pre-merger (improved for one company and not improved for the other one).

2. Return on Equity (ROE)
Return on equity is an important measure of the profitability of a company. Higher values are generally
favorable meaning that the company is efficient in generating income on new investment. Investors should compare the ROE of different companies and also check the trend in ROE over time. However, relying solely on ROE for investment decisions is not safe.

On evaluating the ROE ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger ROE ratios are higher than the post-merger ROE ratio. In 2005, it was 7% and in 2006, it decreased to 2%. In 2008, it decreased to 0.9% and in 2009 it decreased to (2)%. This indicates that the ROE has not been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the ROE ratio for General Investments before and after the merger, we find that pre-merger ROE ratios are similar on average compared to post-merger ROE ratios. In 2006, it was 9% and in 2007, it decreased to 8%. In 2009, it decreased to 5% and in 2010, it increased to 11%. This indicates that the ROE has been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the ROE has mixed results after merger compared to pre-merger (improved for one company and not improved for the other one).

3. Gross profit margin
Gross profit margin measures company’s manufacturing and distribution efficiency during the production process. It is a measurement of how much from each dollar of a company’s revenue is available to cover overhead, other expenses and profits. The ideal level of gross profit margin depends on the industries, how long the business has been established and other factors. Although, a high gross profit margin indicates that the company can make a reasonable profit, as long as it keeps the overhead cost in control. A low margin indicates that the business is unable to control its production cost.

On evaluating the gross profit margin ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger gross profit margin ratios are similar on average compared to post-merger gross profit margin ratios. In 2005, it was 94.3% and in 2006, it decreased to 93.6%. In 2008, it increased to 94.3% and in 2009, it decreased to 90.2%. This indicates that the gross profit margin has not been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the gross profit margin for General Investments before and after the merger, we find that pre-merger gross profit margin ratios were higher than the post-merger gross profit margin. In 2006, it was 35.7% and in 2007, it decreased to 35.1%. In 2009, it decreased to 25.6% and in 2010, it increased to 34.5%. This indicates that the gross profit margin has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the gross profit margin for both companies has not been improved after merger compared to pre-merger.

4. Net profit margin
Net profit margin measures how much of each dollar earned by the company is translated into profits. A low profit margin indicates a low margin of safety; higher risk that a decline in sales will erase profits and result in a net loss. Net profit margin provides clues to the company’s pricing policies, cost structure and production efficiency. Different strategies and product mix cause the net profit margin to vary among different companies.

On evaluating the net profit margin ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger net profit margin ratios are higher than post-merger net profit margin ratio. In 2005, it was 94.7% and in 2006, it decreased to 35.8%. In 2008, it increased to 55.2% and in 2009 it decreased to (151.8)%. This indicates that the net profit margin has not been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the net profit for General Investments before and after the merger, we find that the pre-merger net profit margin ratios are higher than the post-merger net profit margin ratios. In 2006, it was 25.6% and in 2007, it increased to 21.4%. In 2009, it decreased to 10.9% and in 2010, it increased to 23.2%. This indicates that the net profit margin has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the net profit margin for both companies has not been improved after merger compared to pre-merger.

5. Earnings per share (EPS)
EPS may be defined as the portion of a company’s profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company’s profitability. Higher is better.

On evaluating the EPS of Al Dulayl Industrial park and Real Estate Company before and after merger, we find that there is a decrease in EPS post-merger. In 2005, it was 0.078 and in 2006, it decreased to 0.031. In 2008 it decreased to 0.024 and in 2009, it decreased to (0.11). This indicates that the EPS has not been improved during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the EPS of General Investments before and after the merger, we find that the pre-merger EPS is similar on average compared to post-merger EPS. In 2006, it was 0.223 and in 2007, it decreased to 0.201. In 2009, it decreased to 0.123, and in 2010, it increased to 0.27. This indicates that the EPS has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the EPS for both companies has not been improved after merger compared to pre-merger.

On evaluating the overall profitability ratios for Dulayl Industrial park and Real Estate Company before and after the merger, we find that the merger for this company is not improved because most ratios, on average, are decreased or maintained at the same level.
On evaluating the overall profitability ratios for General Investments before and after the merger, we find that the merger for this company has mixed results because some ratios have been improved while other ratios have not been improved. In summary, we find that, for most ratios, compared with pre-merger, post-merger profitability ratios are not improved for the acquirer corporation. The findings lead us to reject the second hypothesis. The reason for that may due to that the acquirer corporations need more time to be able to improve profitability ratios.

**Financial Leverage**

Table 8 shows the financial leverage ratios for Al Dulayl Industrial park and Real Estate Company for the years 2005 and 2006 (two years before merger), 2007 (the year of merger), 2008 and 2009 (two years after merger).

<table>
<thead>
<tr>
<th>Financial Leverage</th>
<th>Debt ratio</th>
<th>Debt/equity ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>39.4%</td>
<td>65.2%</td>
</tr>
<tr>
<td>2006</td>
<td>37.6%</td>
<td>60.3%</td>
</tr>
<tr>
<td>2007</td>
<td>11.6%</td>
<td>13.2%</td>
</tr>
<tr>
<td>2008</td>
<td>9.1%</td>
<td>10.1%</td>
</tr>
<tr>
<td>2009</td>
<td>7.5%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

Table 9 shows the financial leverage ratios for General Investments for the years 2006 and 2007 (two years before merger), 2007 (the year of merger), 2009 and 2010 (two years after merger).

<table>
<thead>
<tr>
<th>Financial Leverage</th>
<th>Debt ratio</th>
<th>Debt/equity ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8.4%</td>
<td>9.2%</td>
</tr>
<tr>
<td>2007</td>
<td>9.3%</td>
<td>10.3%</td>
</tr>
<tr>
<td>2008</td>
<td>8.9%</td>
<td>9.8%</td>
</tr>
<tr>
<td>2009</td>
<td>8.7%</td>
<td>9.5%</td>
</tr>
<tr>
<td>2010</td>
<td>8.1%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

1. **Debt ratio**

The debt ratio indicates the firm’s long-term debt-paying ability, it indicates the percentage of assets financed by creditors, and it helps to determine how well creditors are protected in case of insolvency. The lower the percentage, the less leverage a company is using and the stronger its equity position. In general, the higher the ratio, the more risk that company is considered to have taken on.

On evaluating the debt ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger debt ratios are higher than the post-merger debt ratio. In 2005, it was 39.4% and in 2006, it decreased to 37.6%. In 2008, it decreased to 9.1% and in 2009, it decreased to 7.5%. This indicates that the debt ratio has been improved significantly during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the debt ratio for General Investments before and after the merger, we find that pre-merger debt ratios are similar on average compared to post-merger debt ratios. In 2006, it was 8.4% and in 2007, it increased to 9.3%. In 2009, it decreased to 8.7% and in 2010, it decreased to 8.1%. This indicates that the debt ratio has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the debt ratio has mixed results (improved for one company and not improved for the other one).

2. **Debt/Equity ratio**

It compares a company’s total liabilities to its total shareholder’s equity. This is a measurement of how much suppliers, lenders, creditors and obligators have committed to the company versus what the shareholders have committed. To a large degree, the debt-equity ratio provides another vantage point on a company’s leverage position, in this case, comparing total liabilities to shareholders’ equity, as opposed to total assets in the debt ratio. Similar to the debt ratio, a lower the percentage means that a company is using less leverage and has a stronger equity position.

On evaluating the debt/equity ratio of Al Dulayl Industrial park and Real Estate Company before and after the merger, we find that pre-merger debt/equity ratios are higher than the post-merger debt/equity ratio. In 2005, it was 65.2% and in 2006, it decreased to 60.3%. In 2008, it decreased to 10.1% and in 2009, it decreased to 8.1%. This indicates that the debt/equity ratio has been improved significantly during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the debt/equity ratio for General Investments before and after the merger, we find that pre-merger debt/equity ratios are similar on average compared to post-merger debt/equity ratios. In 2006, it was 9.2% and in 2007, it increased to 10.3%. In 2009, it decreased to 9.5%, and in 2010, it decreased to 8.9%. This indicates that the debt/equity ratio has not been improved during 2009-2010 (after merger) compared with 2006-2007 (before merger). In summary, we find that the debt/equity ratio has mixed results (improved for one company and not improved for the other one).

On evaluating the overall leverage ratios for Dulayl Industrial park and Real Estate Company before and after the merger, we find that the merger for this company has been improved significantly during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the overall leverage ratios for General Investments before and after the merger, we find that the
merger for this company has not been improved the leverage ratios during 2009-2010 (after merger) compared with 2006-2007 (before merger). Compared with pre-merger, the post-merger financial leverage ratios have mixed results. This means that the results do not support the third hypothesis.

CONCLUSIONS

This study extends the research on the effect of mergers on the financial performance. Three hypotheses examining the effect of mergers on the liquidity ratios, profitability ratios and financial leverage ratios are presented in this study. Two listed corporations from Amman Stock Exchange are analyzed. The results provide insights into the ability of merger in improving the financial performance.

On evaluating the overall liquidity ratios for Al Dulayl Industrial park and Real Estate Company before and after merger, we find that the merger for this company is successful because all of the ratios have been improved to reach the normal level that any company would like to maintain if the company wants to continue its operations. On evaluating the overall liquidity ratios for General Investments before and after merger, we find that the merger for this company was not successful because most of the ratios have not been improved to reach the normal level. In summary, we find that, compared with pre-merger, post-merger liquidity ratios has mixed results. In other words, the findings are not able to support the first hypothesis.

On evaluating the overall profitability ratios for Dulayl Industrial park and Real Estate Company before and after the merger, we find that the merger for this company is not improved because most ratios, on average, are decreased or maintained at the same level.

On evaluating the overall profitability ratios for General Investments before and after the merger, we find that the merger for this company has mixed results because some ratios have been improved while other ratios have not been improved. In summary, we find that, most ratios, compared with pre-merger, post-merger profitability ratios are not improved for the acquirer corporation. The findings lead us to reject the second hypothesis. The reason for that may due to that the acquirer corporations need more time to be able to improve profitability ratios.

On evaluating the overall leverage ratios for Dulayl Industrial park and Real Estate Company before and after the merger, we find that the merger for this company has been improved significantly during 2008-2009 (after merger) compared with 2005-2006 (before merger). On evaluating the overall leverage ratios for General Investments before and after the merger, we find that the merger for this company has not been improved the leverage ratios during 2009-2010 (after merger) compared with 2006-2007 (before merger). Compared with pre-merger, the post-merger financial leverage ratios have mixed results. This means that the results do not support the third hypothesis.

LIMITATIONS

Merger is not a common thing in Jordan, because in the past decade only five mergers have been occurred. We couldn’t analyze all the cases because two of them are new and one is not consistent with the industry taken. We have analyzed only two cases. The results between the two companies are significantly different. So the conclusions of this paper may not be generalized using the limited number of companies analyzed.

RECOMMENDATION

Another research must be conducted in the future, to analyze the two companies that merged in 2013 and any other companies, so the researcher can find more accurate results.

REFERENCES


