Effect of Acquisition Activity on the Financial Indicators of Companies: An Application in BIST

Eda ORUÇ ERDOĞAN[1], Murat ERDOĞAN[2]

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ABSTRACT

The main objective of company managers is to raise market power that is the market price of the company, and hence to increase profitability. The merger and acquisition activities, which is one of the restructuring processes relied on by companies in the world and Turkey are important to achieve this goal.
In this study, it is aimed to determine whether the acquisition activities of companies cause any change in various financial indicators of companies. Accordingly, it was also attempted to determine the financial ratios that present a significant change. In this context, Wilcoxon Signed Rank test was used in the SPSS-16 program to analyze whether there is a significant difference in the financial ratios caused by the acquisition activities of 10 companies publicly-traded on the Borsa Istanbul (BIST - Istanbul Stock Exchange) and had acquisition activities in 2004-2005. According to the results obtained, it was identified that assets turnover ratio, the net profit margin and leverage ratio of the companies significantly differed before and after the acquisition activities of the companies, however, no significant difference was found in the current ratios and average stock returns of the companies between these periods.

1. Introduction

The main objective of company managers is to increase the company-value, in other words to increase the market price of the company and hence to increase profitability by increasing market power and decreasing costs. Companies perform various practices for achieving this goal. Business growth is one of these practices. Companies choose the path of merger or acquisitions to achieve growth.

The merger is an economic and legal consolidation of two or more companies' activities into one entity or a cooperation for growth (Emery, 1998). There are resource and power transfers between companies in the merger. Thus, the companies create a synergy by combining their powers. They achieve higher productivity through merger, compared to returns to be obtained by each of the companies separately. In other words, Mergers are considered the most common cooperative strategy between two companies of similar size, carried out to increase market power and productivity (Wright, Kroll & Parnell, 1996).

The acquisition is another path preferred by the companies for growth. And, an acquisition is the purchase and takeover of assets or shares of one company by another company in whole or in part. Companies are able to achieve their growth objectives, as well as diversification by entering into different industries through acquisition (Thompson & Strickland, 2001).

In the mergers, the combined companies become a new legal entity, whereas in the acquisitions one of the companies takes control of the assets of another company. In addition, former shareholders' ownership of the acquired company is terminated, and the acquired company becomes a subsidiary of the acquiring company. The acquiring company preserves its assets, money and identity, whereas the acquired company loses its entire assets and liabilities (Mohammad & Demidoo, 2008).

[1] Assistant Professor, Akdeniz University, Faculty of Economics and Administrative Sciences, Department of Business Administration, Turkey, E-mail: edaoruc@akdeniz.edu.tr
[2] Research Assistant, Akdeniz University, Faculty of Economics and Administrative Sciences, Department of Business Administration, Turkey, E-mail: muraterdogan@akdeniz.edu.tr

2. Reasons for Mergers and Acquisitions

Companies try to achieve growth and development in the industries in which they continue to operate, due to the effects created by the globalization in particular. Although growth is the main reason that drives companies to engage in merger and acquisition activities, there are many other reasons stated in the literature for mergers. The numbers and levels of significance of these reasons may vary according to the socioeconomic conditions of the countries in which the merger took place, features of the companies and the conditions of the time.

The reasons for the willingness of the companies to perform merger and acquisition activities are grouped by Tanure (2009) under eight main headings. These are; (i) ensuring ease of access to markets; (ii) growth; (iii) diversification; (iv) expansion of the distribution network; (v) gaining new advantages; improving the present competitive advantages; (vi) purchase of low-value assets in order to increase shareholder value; (vii) adapting to the changes in the industry; and (viii) desire to acquire new knowledge about the other companies, businesses and industries (Tanure, 2009).

Another incentive for the merger and acquisition activities is the possibility that the acquisition of a company might be a profitable investment. According to many scholars, a merger and acquisition activity is an alternative investment method. Companies tend to perform an acquisition activity when they intend to increase their capacity in the best profitable way, acquire new knowledge and technology, possess new products, enter new geographic areas, or control the activities of the management or company owners (Pautler, 2001).

2.1 Literature Examining the Effects of Acquisition and Merger Activities on the Financial Performances of Companies

There are various studies in the literature examining the financial performances of companies that performed an acquisition and merger activity. Some of the studies in the literature are discussed below.

In a study conducted by Camerlynck et al. (2005), they analyzed 143 acquisition cases performed in Belgium between 1992-1994. During the analysis process, financial ratio calculations and non-parametric Wilcoxon statistical test was performed. Although the acquiring companies achieve a higher growth rate in their total assets and sales than the target companies, there were negative conditions in their adjusted liquidities than the industry, and they have reached a higher level of leverage.

Another study that investigates the relationship between an acquisition activity and financial performance of the companies has been conducted by Ooghe et al. (2006). In this study, they have analyzed the company which had performed 143 acquisitions in Belgium between 1992-1994. The financial performance indicators were analyzed to see whether these indicators of the acquiring company, such as profitability, liquidity, solvency and added-value were higher after the acquisition compared to the ones before the acquisition. In the analysis process, financial ratio calculations and non-parametric Wilcoxon statistical test was performed. According to the results, it was found that the average profitability of the acquiring company was higher before the acquisition compared to the profitability after acquisition. In addition, acquisitions created a negative effect in terms of solvencies of the acquiring companies. Another important finding obtained in the analysis was that the acquisition has a negative impact on the liquidity ratios of the acquiring companies. Besides that, an increase was observed in the rate of gross value added per employee; and, this result was associated with positive effects of the acquisition process on the productivity of the employees of the acquiring company.

Pazarskis et al. (2006) analyzed 15 mergers and acquisitions performed between 1998-2002 in Greece in their study. Financial ratio calculations and t-test was used in the analysis process. Financial ratio calculations were carried out to cover 3 years before and after the merger. Survey technique was used for data collection, and strong evidence was found on the decrease in company profitability due to the mergers and acquisitions.

Liu et al. (2007) have used financial ratio calculations, data envelopment analysis and regression analysis methods in their study evaluating performances of 60 companies between 1993-2003. Of the 60 companies, 24 of them have performed a mergers and acquisitions activity. As a result of the analysis, it was observed that company performance does not increase after mergers and acquisitions activities, and although the company operating performances increase in a meaningful way through the internal growth method, the merger and acquisition activities were not effective in achieving the same goal.

Wu (2008) has analyzed 17 bank merger and acquisition activities in Australia between 1983-2001. In the analysis process, the financial ratio calculations, t-test, Wilcoxon test, data envelopment analysis and Tobit regression analysis methods were used. In the study, the effectiveness of bank mergers and acquisitions were analyzed. As a result of the analysis, the findings reached are as follows: Acquiring banks were larger, more aggressive and less effective than the target banks. The scale inefficiency was determined as the main source of being not effective. According to the results of the regression analysis, there is a positive correlation between effectiveness before and after the merger of the banks.

Saboo and Gopi (2009) analyzed 54 merger and acquisition activities between 2000-2007 in their study. Analysis was based on the use of Paired t-test in analyzing the financial ratio calculations that cover two years before and after the mergers and acquisitions. The analysis was intended to examine the impact of domestic and cross-border mergers and acquisitions on the company performances. As a result of the analysis, the findings reached are as follows: Domestic mergers increased and improved the merged company's operating performance. In addition to this, there was no evidence for any increased performance in the cross-border mergers and acquisitions.

3. Research Methodology

In this study, the differences between financial performances before and after the acquisition activities of the companies traded on the Borsa Istanbul (BIST - Istanbul Stock Exchange) and had an acquisition activity in 2004 and 2005 was investigated. The sample population is ten companies. Differentiation between periods were analyzed with the Wilcoxon signed-rank test. The applied test was performed in the SPSS-16 program. The data obtained were compiled by using the official website of BIST and the official website of the Public Disclosure Platform.

The companies covered in this study and the dates of their acquisition activities are presented in Table 1.

Table 1. The companies that performed an acquisition activity in the 2004-2005 period.

	Type of Activity	Parties of Activity	Activity Date
1	Acquisition	Tat Konserve A.Ş. / Tariş Alkollü İçecekler A.Ş.	23.01.2004
2	Acquisition	Aygaz A.Ş. / Oksijen Sanayi A.Ş.	26.02.2004
3	Acquisition	Ereğli Demir Çelik Fabrikaları T.A.Ş. / Divriği Hekimhan Madenleri San. T.A.Ş.	15.04.2004
4	Acquisition	Bursa Çimento Fabrikası A.Ş. / Tunçkül Çimento Mineral Katkılar İnşaat San. ve Tic. A.Ş.	08.04.2004
5	Acquisition	Banvit Bandırma Vitaminli Yem San. A.Ş / İzmir Kemal Paşa Hindi Yemi Fabrikaları	22.09.2004
6	Acquisition	Tire Kutsan Oluklu Mukavva Kutu ve Kağıt Sanayi A.Ş. / Pripack Ambalaj Sanayi ve Ticaret A.Ş.	13.01.2005
7	Acquisition	İzmir Demir Çelik Sanayi A.Ş. / İDÇ Liman İşletmeleri A.Ş.	28.01.2005
8	Acquisition	Soda Sanayii A.Ş. / Cromital S.P.A.	08.07.2005
9	Acquisition	Çimsa Çimento Sanayi ve Ticari A.Ş. / Standart Çimento Ticari ve İktisadi Bütünlüğü	27.12.2005
10	Acquisition	Çimentaş İzmir Çimento Fabrikası T. A.Ş. / Lalapaşa Çimento Ticari ve İktisadi Bütünlüğü	30.12.2005

As Müslümov's (2002) study, the year (t=0) of the merger or acquisition was excluded from the study. Evaluations were performed for the previous and next five years to this date. Accordingly, the period (t) was accepted as the period of the acquisition activity, and the period before the acquisition activities covers 5 years of the (t-1), (t-2), (t-3), (t-4) and (t-5) periods, and the period after the acquisition activities covers a 5 years of (t+1), (t+2), (t+3), (t+4) and (t+5) periods. Hence, it was attempted to determine whether there is a significant difference between the financial indicators in the 5 years before and after the acquisition activities.

The variables identified as performance indicators are the asset turnover ratio that measures operating performance, the net profit margin, total-debt/total-assets ratio, which is one of the capital structure ratios, the current ratio which is one of the liquidity ratios, and the stock returns of the companies. The calculation methods of the variables used as a performance indicator are shown in Table 2.

Table 2. Variables and Calculation Methods

Variables	Calculation Methods
Current Ratio (CR)	Current Assets / Current Liabilities
Assets Turnover Ratio (ATR)	Sales / Total Assets
Leverage Ratio (LR)	Total Liabilities / Total Assets
Net Profit Margin (NPM)	Net Profit / Sales
Average Stock Returns (ASR)	Average monthly stock returns

4. Results

Mean values of the financial indicators before and after the acquisition activities of the companies are presented in Table 2a and Table 2b. Although the value of the mean current ratio of the companies was 1.75 prior to the acquisition activity, after the acquisition activity the current ratio of the companies was raised to 1.80. And, the asset turnover ratio was 1.17 in the period before the acquisition, where it was raised to 1.18 in the period after the acquisition. The leverage ratio, which is one of the other financial indicators, was 0.30 before the acquisition, and raised to 0.41 in the period after the acquisition. The average net profit margin of companies was 0.061 before the acquisition, and raised to 0.067 after the acquisition.

Table 3.a. Financial Indicators Before Acquisition Activities

Variables[2]	Minimum	Maximum	Mean	Std. Deviation
CRB	,36	4,91	1,7524	1,04605
ATRB	,51	3,54	1,1748	,60469
LRB	,02	,82	,3070	,17631
NPMB	-,16	,24	,0612	,08245
ASRB	-4,26	23,08	3,9720	5,78642
Number of Observation	50			

Table 3.b. Financial Indicators After Acquisition Activities

Variables[3]	Minimum	Maximum	Mean	Std. Deviation
CRA	,55	5,18	1,8095	1,07513
ATRA	,34	2,63	1,1875	,63476
LRA	,18	,94	,4199	,18088
NPMA	-,25	,50	,0670	,10905
ASRA	-5,99	11,17	2,2128	4,56797
Number of Observation	50			

Before evaluating the difference in the financial indicators of companies in the periods before and after the acquisition process, the variables were examined to see whether they follow a normal distribution. It was determined that although some of the variables have a normal distribution, some of them have not. Therefore, the Wilcoxon Rank test was applied, which is one of the non-parametric tests.

Looking at the financial indicators to see whether there was a significant change before and after the acquisition processes, it was found that the current ratio, which is one of the liquidity indicators, and average stock returns had no significant difference between the periods according to analysis results presented in Table 4. And, based on the evaluation of other ratios, it was identified that the indicators of asset turnover ratio, the net profit margin and leverage ratio show a significant difference in the periods before and after the acquisition.

Table 4. Wilcoxon Signed Rank Test Results

Financial Indicators	Median Values		Asym. Sig.	Exchange between the period average
	Before Acquisition	After Acquisition		
ATR	1.0521	1.1507	0.029*	Increase
CR	1.6329	1.5378	0.492	Decrease
NPM	0.0599	0.0676	0.001*	Increase
LR	0.3001	0.3718	0.001*	Increase
ASR	3.1370	1.44548	0.057	Decrease

*It is significant at 0.05.

It is observed that there was an increase in the values of the current ratio before and after the acquisition, however, this increase was not statistically significant. Looking at the significance of the differentiation of the assets turnover ratio, which shows the amount of net sales of a company per asset and helps us to evaluate the efficiency of company assets, between the periods, it was seen that there was an increase in the sales activities and asset efficiencies of the companies after acquisition activities.

And, a significant increase was observed in the values of the net profit margin based on the examinations of the net profit margins in the periods before and after the acquisition. Accordingly, the acquisition activities cause an increase in the net profit margins of the acquiring companies. Also, based on the evaluation of the leverage ratios of the companies in the periods before and after the acquisition activities, it is seen that there was a significant increase in the coverage level of assets of companies by loans. And, a difference was found in the stock returns before and after the acquisition activity, however, there was a decrease in the average stock returns, albeit not significant.

Conclusion

In this study, the effects of the acquisition activities performed in Turkey on various financial indicators of the acquiring companies were investigated on the basis of periods of five years. In our study, looking at the acquisition activities of 10 companies traded on BIST in between 2004-2005, it is observed that assets turnover ratio, leverage ratio and the net profit margin were higher in the period before the acquisition compared to the period after the acquisition. According to the results, companies that tend to grow by acquisition activities have their assets turnover ratio increased, and have an increase in the amount of sales accordingly. Therefore, it was found that there is an increase in both the assets and sales of these companies due to the acquisition activities. It is also seen that the companies that grow by performing an acquisition activity tend to prefer financing by borrowing in the periods after the acquisition. Accordingly, it can be suggested that these companies had the opportunity to make more loans because of the "success" signal created by achieving growth. Of the financial indicators analyzed, only decrease observed in the period after acquisition compared to the period before the acquisition was in the stock returns of the companies. But this exchange is no significant. In addition, similar to the results found in the study by Pazarskis et al. (2006), no significant difference was found in the current ratio, which is one of the liquidity indicators, between the periods.

As a result, it can be concluded that the acquisition activities investigated in the study have an effect on some of the financial performance indicators of the acquiring companies, and this effect can also be considered a positive effect.

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