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## AN EMPIRICAL ANALYSIS OF FINANCIAL PERFORMANCE AND INDICATORS OF ACQUISITIONS

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### Abstract

Acquisitions have been used as a growth strategy in both developed markets and emerging markets. Turkey, as one of the leading emerging markets in the world, has been home to huge number of acquisitions. In this empirical study, we try to shed light on the outcomes of acquisitions that have occurred in Turkey between 1990 and 2017. In addition to compare post-acquisition with pre-acquisition, we use other Turkish companies that don't engage in acquisitions as benchmark to see the effect of acquisitions on Turkish companies. Our findings indicate that acquisitions have a positive effect on Turkish firms' financial performance. We also find that Turkish acquirers are more aggressive in terms of growth than non-acquirer companies are and have higher values on capital expenditures, research and development and staff expenses. When we compare these acquirers with their pre-acquisition periods, we also find an increase in these financial indicators, which indicates that acquisitions affect Turkish companies significantly.

**Keywords:** Acquisitions, Financial Performance, Emerging markets.

**JEL Classification:** F23, G34, M16.

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## SATIN ALMALARIN FİNANSAL PERFORMANS VE İNDİKATÖRLERİ ÜZERİNE AMPİRİK BİR ANALİZ

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### Öz

Şirket satın almaları hem gelişmiş pazarlarda hem de gelişmekte olan pazarlarda bir büyüme stratejisi olarak kullanılmaktadır. Dünyanın önde gelen gelişmekte olan pazarlarından biri olan Türkiye, çok sayıda satın almaya ev sahipliği yapmaktadır. Bu ampirik çalışmada, 1990 ve 2017 yılları arasında Türkiye'de gerçekleşen satın almaların sonuçlarına ışık tutmaya çalıştık. Satın alma işlemlerinin öncesi ve sonrasını karşılaştırmaya ek olarak, bu işlemlerin Türk şirketlerine etkisini görmek için satın alma işlemlerine dahil olmamış Türk şirketlerini referans olarak kullandık. Bulgularımız satın alımların Türk firmalarının finansal performansına pozitif etkisi olduğunu göstermektedir. Ayrıca, Türk satın alıcıların, alımda bulunmayan şirketlere göre büyüme konusunda daha agresif olduklarını ve sermaye harcamalarında, araştırma & geliştirme ve personel giderlerinde daha yüksek değerlere sahip olduklarını tespit ettik. Satın alma işlemlerinde bulunan şirketleri satın alma öncesi dönemleri ile karşılaştırdığımızda, ilgili değerlerde benzer bir yükseliş saptadık. Nihai olarak, çalışmada elde edilen tüm bulgular satın almaların şirketleri anlamlı bir şekilde etkilediğini göstermiştir.

**Anahtar Kelimeler:** Firma Satın Almaları, Finansal Performans, Gelişen Pazarlar.

**JEL Sınıflandırması:** F23, G34, M16.

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DOI: 10.18092/ulikidince.460729

Makalenin Geliş Tarihi (Received Date): 17-09-2018

Yayına Kabul Tarihi (Acceptance Date): 30-03-2020

## 1. Introduction

The last decades have witnessed a boom in acquisitions both at the domestic and international levels. Companies use acquisitions extensively for different purposes such as growing, strategic reasons, synergy creation, etc. (Bendaş, 2015; Dalkılıç and Cagle, 2015; Selçuk, Köksal and Yılmaz, 2016). Each year, billions of dollars' worth of acquisition activity take place in the world, which have received great attention in the literature. Acquisitions have been studied in terms of their motivations, success factors and consequences.

Despite the increasing number of studies about acquisitions from emerging markets, majority of studies have examined the acquisitions at developed markets (e.g. Akdoğu, 2012; Gregory and O'Donohoe, 2014; Şahin 2016; Jensen-Vinstrup, Rigamonti and Wulff, 2018; Li, Qiu and Shen, 2018). However, emerging economies has increasingly played an important role in the world economic picture. A significant amount of world investment flows was to/from emerging markets, including the acquisition activity. Turkey, as one of the important emerging markets, has received increasing amount of foreign direct investment flow, which is mainly via acquisitions. Acquisitions also play a critical role in raising financial resources for multinational companies from emerging markets. Especially last couple of years, the capital inflow to developing countries like Turkey has seen a decline. Given the importance for these flows for both the countries and the firms, acquisitions play a key role. Firms from these countries need financial resources to further grow and gain the ability to compete at the international level. These acquisitions help those firms to generate necessary capital to go next steps. In addition, there has been hundreds of acquisitions between Turkish companies since 1980s (Genc and Kalkan, 2018). This acquisition activity sparked interest in Turkish acquisitions. Studies have examined Turkish acquisitions mostly from the stock market return perspective (e.g. Akben-Selçuk and Altıok-Yılmaz, 2011; Evrim-Mandacı, 2005) as well as some small case-based investigation (e.g. Turğay, Dördüncü and Öz, 2014). There are few studies that study the financial outcomes of Turkish acquisitions, which are based on very small samples for limited periods (e.g. Evrim-Mandacı, 2005). Inconclusive findings indicate a need for a comprehensive study about the impact of acquisitions on the financial performance of Turkish companies. We aim to fill this gap by studying all acquisitions conducted by Turkish companies between 1990 and 2017.

We examine the outcomes of Turkish acquisitions from different perspectives. In addition to comparing the periods before and after the acquisition, we examine both acquirers and non-acquirer Turkish companies. This allows us to see the outcomes of Turkish acquisitions and how Turkish acquirers differ from other Turkish companies. Based on our analyses, we find evidence that Turkish acquirers have better performance than average Turkish firms have in terms of profitability and return on investment. Our results also indicate that these acquirers have higher expenditures in R&D, capital and staff expense, which have potential to improve firm performance. In our comparison of pre and post-acquisition periods of Turkish acquirers, we find an increase in capital expenditures, selling, general and administrative (SG&A) expenses and staff expenditures. These results show that acquisitions have important impact on companies and change the dynamics of the companies significantly.

This study contributes to the literature in several ways. To the best of our knowledge, this is the most comprehensive study in terms of time coverage as we have acquisitions between 1990 and 2017 in our sample. When combined with hundreds of other Turkish companies we analyze, this becomes the largest sample that has been used in Turkish acquisitions studies. In addition, different from most of the prior literature, which has used stock market reaction to acquisitions, we use different financial indicators in order to see a detailed picture of how acquisitions affect Turkish companies. Performance indicators such as profitability and return on assets are two most commonly used measures in the

literature. In addition to these variables, we look at several other financial variables including leverage, size, capital expenditures, R&D intensity, staff expense, etc. This allows us to see whether acquisitions change the dynamics and strategies of firms in addition to having performance implications. We also compare Turkish acquirers with non-Turkish companies which provides us a good picture of how Turkish acquirers and non-acquirers differ.

The rest of the paper is organized as follows. We provide an in-depth literature review in next section. Then, we discuss the sample and the methodology, which is followed by the findings of our analyses. We conclude with the discussion, where we discuss the contributions, implications, limitations and directions for future research.

## **2. Literature Review**

The changing global trends shape the way of doing business since they are increasing the competition in international markets as well as the interdependency between markets. Acquisitions are mainly used as a business tool in order to answer these changes by creating a growth model. An acquisition refers to taking over a target company by another company. A significant percent of acquisitions are taking place between countries in terms of foreign direct investment (FDI). Global FDI flow was \$1.43 trillion in 2017 while emerging economies represented 47% of FDI inflows with \$671 billion (UNCTAD, 2018). Furthermore, the value of net cross-border acquisitions was \$694 billion in 2017 (UNCTAD, 2018). There is expected to be an increase in FDI as well as acquisitions in 2018 under the risk of currency fluctuations, trade and tax reforms of the United States (UNCTAD, 2018). All these statistics show that there is a tremendous amount of money flow via acquisitions, which makes this phenomena very important for companies. As a result, acquisitions have received great attention in the various literatures including management, finance and economics.

There are several reasons for companies to engage in acquisitions. The main reason is growth. Firms use acquisitions to access new product lines, customer bases and benefit of diversification from different geographic locations (Tamosiuniene and Duksaite, 2009). Gaining access to intangible assets like the human capital of a company is also important to increase competitiveness. Another motivation for acquisitions is to benefit from the synergy, which comes from collective power of two firms. This synergy from an acquisition reflects on the firm's financial tables (Selçuk, Köksal and Yılmaz, 2016) as well as the stock prices positively (Çakır and Gülcan, 2012). However, there is also a view that stock prices should not be the only determinant of success in acquisitions since short-term reactions and long-term returns may contradict (Genc, 2016). Target companies have their own motivations to engage in acquisitions. Şahin (2016) examines acquisitions from target's motivation perspective and states that firms, which reach their limit with the resources they have and cannot find more capital, prefer to be acquired.

Acquirers can benefit from acquisitions several ways. For instance, Yildirim (2010) stated that firms enhance their market power via acquisitions so that they can set prices and make saving from their costs. On the other hand, Dalkılıç and Cagle (2015) argue that while firms try to maximize their profit and power via acquisitions, they may also create a monopoly that will harm the consumer welfare. There are also several studies that find acquisitions as value destructing and failures (Billet & Qian, 2008; Spyrou and Siougle, 2007; Dalkılıç and Cagle, 2015). According to some other studies, the success of acquisitions depends on some success factors. For instance, Bendaş (2015) argues that firms may benefit from acquisitions in terms of economies of scope if acquirer and target are related but not operating in the same sector (vertical acquisition). Similarly, Bendaş (2015) argues that the synergy from the acquisition may lead to economies of scale if acquisition occurs between firms, which operate in the same industry (horizontal acquisition). In a similar vein, Genc (2016) argues that the success of acquisition is not the same for domestic and international deals.

Acquisition activities in Turkey has started to gain acceleration after 1980 with the liberalization and incentives to attract foreign direct investment. This trend has continued and \$8 billion worth of acquisitions have been announced in the first six months of 2018 (Dünya, 2018). There has been some studies that specifically looked at Turkish acquisitions. Şahin (2016) examined acquisition activities of Turkey from 1988 to 2014 and showed that acquisition trends in general were similar to acquisition trends in other parts of the world. While the total value of acquisition activities that Turkish companies are involved reached the peak levels between 2005 and 2007, the number of acquisitions were highest in 2015 (Genc and Kalkan, 2018). Akdoğu (2011) analyzed acquisition activities occurred between 1988 and 2008 and found that the value of acquisition by foreign acquirers was higher compared to acquisitions by Turkish firms. In a more recent study, Genc and Kalkan (2018) examined all acquisitions took place in Turkey and showed that the foreign companies' acquisitions of Turkish companies are five times greater than acquisitions of foreign companies by Turkish companies. Furthermore, Şahin (2016) stated that most of the acquisitions in Turkey occurred horizontally. In terms of acquisitions by Turkish firms with respect to preferred industries, acquisitions occurred mostly in manufacturing with low-technology and services with less-knowledge (Yıldırım, 2017). One of the motivations for Turkish acquisitions is to overcome the political and bureaucratic problems in target market (Sarıca, 2008). In a similar vein, Geyikdağı and Karaman (2010) link the increase in the foreign acquisitions of Turkish companies to the privatization of publicly owned companies as a strategy of the Turkish government. Selçuk et al. (2016) examine the driver of Turkish acquisitions from a different perspective and explain the reason behind the horizontal acquisition as incentives to increase market power and decrease cost with economies of scale. In addition to the studies that examine the drivers of Turkish acquisitions, there are some studies that look at the outcomes of these acquisitions. In one of those studies, Selçuk et al. (2016) find that stock prices of target companies increase after the acquisition, but shares of acquirer firms are not affected as much as target companies'. Genç and Coşkun (2013) also find an increase in the target firm's stock price after the acquisition announcement and they argue that there are abnormal returns in stock prices two days before the announcement date and explain this due to insider trading. In addition, Bendaş (2015) explains that value of acquirer firms increases in the long run with the analyzed stock data from Borsa İstanbul in 2013.

Despite the increasing interest in Turkish acquisitions, there is still not a consensus about how they affect acquirers. Majority of the studies have been conducted based on small samples and they have used stock prices. Some other studies have focused on giving a general view of acquisition trends and statistics. There are not many studies that investigate the financial outcomes of acquisitions and there are calls for a comprehensive analysis of Turkish acquisitions (e.g. Selcuk et al, 2016). Those studies who have examined the financial outcomes are based on very limited samples. For instance, İlarıslan and Aşikođlu (2012) analyzed the financial ratios of acquirers for 17 acquisitions in 2004-2005. Although these kinds of studies, provide an in-depth view of a specific sample period, they don't tell us the big picture about Turkish acquisitions. In this paper, we aim to fill this gap by examining the Turkish acquisitions with a comprehensive sample in terms of both time period and the number of variables. We want to see the effects of acquisitions on Turkish companies from several perspectives.

### **3. Data & Methodology**

We study Turkish companies that have engaged in acquisitions both in Turkey and abroad. In addition to these Turkish acquirers, we use Turkish companies that have not engaged in acquisitions as a benchmark in order to see how acquirers differ from non-acquirers. We collected acquisitions data from the Thomson Financial Securities Data's Worldwide Database called Securities Data Corporation (SDC) Platinum. This dataset includes all acquisitions that Turkish companies have engaged in for the period between 1990 and 2017. Then we used WRDS Compustat Global database to get financial data of these Turkish companies. As not all Turkish companies appear in this dataset, we missed some

observations and had a sample size of 283 acquirers and 5452 non-acquirers. Due to missing data on some non-acquirer companies, the sample size declined further in regression analyses. Despite these lost observations, our sample is among the largest and most comprehensive dataset that has been studied about Turkish acquisitions. The descriptive statistics of the variables are presented in Table 1. The correlations between variables can be seen at the same table. There are some variables that have significant correlation with other variables. The correlation coefficients of those are indicated with \*. However, most of our analyses are univariate level and are not affected by multicollinearity. The only analysis where significant correlations might be an issue is the regression we ran to assess the impact of acquisitions. We used size, R&D and intangibles as independent variables in this analysis and there is no significant correlation between any of these variables.

We conducted three levels of analyses to see the outcomes of Turkish acquisitions. First, we analyzed only the Turkish companies that engaged in acquisitions compared pre and post-acquisition. In this set of analyses, we want to see whether there is a significant change in financial data of the acquirers. However, our main focus in this study is to see how Turkish acquirers differ from other Turkish companies that don't have acquisitions. In the second set of analyses, we compared these two groups of companies with a univariate analysis. Finally, we conducted a multivariate analyses (regression) to see the real effect of acquisition on companies.

We used both success (profitability) variable and some indicators that have potential to affect firm competitiveness. Following are the list of variables that we use in the study and how we measured them.

*Profitability*; the annual net income divided by sales.

*Sales*; the log of annual sales volume instead of the actual dollar value.

*Return on Investment (ROA)*; This variables is measured by net income divided by total assets.

*Size*; the log of total assets by the end of a year.

*Capital Expenditures*; the log of capital expenditures in a year.

*R&D Intensity*; the research and development (R&D) expenses divided by total sales in a year.

*SG&A Expense*; the total amount of selling, general and administrative (SG&A) expenses divided by total sales.

*Leverage*; total liabilities divided by total assets.

*Intangibles*; total value of intangible assets is divided by total assets.

*Goodwill*; the log of goodwill value reported in the balance sheet is used.

*Staff expense*; we divided the annual total staff expenditures by total sales for this variable.

Table 1: Descriptive Statistics and Correlations

| Variable                         | #  | Mean   | Std. Dev. | 1      | 2       | 3       | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12    | 13 |
|----------------------------------|----|--------|-----------|--------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|-------|----|
| Profitability                    | 1  | 0.057  | 0.168     | 1      |         |         |        |        |        |        |        |        |        |        |       |    |
| Profitability Growth             | 2  | -0.346 | 4.711     | -0.015 | 1       |         |        |        |        |        |        |        |        |        |       |    |
| Sales                            | 3  | 6.424  | 2.276     | 0.164* | 0.120   | 1       |        |        |        |        |        |        |        |        |       |    |
| Return on Investment (ROA)       | 4  | 0.048  | 0.089     | 0.576* | 0.036   | 0.133*  | 1      |        |        |        |        |        |        |        |       |    |
| Return on Investment Growth      | 5  | -0.328 | 3.691     | 0.024  | 0.844*  | 0.038   | 0.026  | 1      |        |        |        |        |        |        |       |    |
| Size                             | 6  | 6.624  | 2.228     | 0.117  | 0.077   | 0.941*  | 0.140* | -0.002 | 1      |        |        |        |        |        |       |    |
| Leverage                         | 7  | 0.108  | 0.122     | 0.003  | -0.160* | 0.029   | -0.242 | -0.160 | 0.058  | 1      |        |        |        |        |       |    |
| Capital Expenditures             | 8  | 3.236  | 2.639     | 0.016  | -0.012  | 0.913*  | 0.064  | 0.020  | 0.904* | 0.190* | 1      |        |        |        |       |    |
| R&D Intensity                    | 9  | 0.013  | 0.038     | 0.344* | -0.021  | -0.209  | 0.271* | 0.003  | -0.203 | -0.183 | 0.297* | 1      |        |        |       |    |
| SG&A Expense (as a % of Sales)   | 10 | 0.151  | 0.110     | 0.281* | -0.065  | -0.329* | 0.157* | 0.239  | -0.14  | -0.081 | -0.017 | 0.574* | 1      |        |       |    |
| Intangibles (as a % of Assets)   | 11 | 0.038  | 0.087     | -0.034 | 0.061   | 0.072   | 0.053  | 0.049  | 0.023  | 0.258* | 0.039  | 0.570* | 0.066  | 1      |       |    |
| Goodwill                         | 12 | 3.998  | 3.762     | 0.023  | 0.157   | 0.881*  | -0.025 | 0.121  | 0.865* | 0.013  | 0.850* | -0.132 | -0.037 | 0.154  | 1     |    |
| Staff Expenses (as a % of Sales) | 13 | 0.118  | 0.092     | 0.184* | -0.008  | -0.464* | -0.029 | 0.019  | -0.106 | -0.009 | 0.154  | 0.804* | 0.628* | -0.024 | 0.023 | 1  |

\* specifies the significance level of correlation coefficients, which indicates a significant correlation at the 5% level or better.

## 4. Findings

### 4.1. Post vs. Pre-Acquisition

We analyzed Turkish acquirers by comparing their financials before and after acquisition. In this analysis, we conducted a t-test to compare two periods. We did the comparisons for both one year and two years. In one-year comparison, we looked at the variables at the acquisition year (t) and the year before the acquisition takes place (t-1). In the two-year analysis, we compared the year after acquisition (t+1) and the year before acquisition (t-1).

The results are presented in Table 2. Acquirers see a decline of 8% in their profitability, especially when compared to the year before acquisition. However, there is not a significant change in their sales and ROA. On the other hand, we find a significant increase both in the size and the leverage of acquirers. There are also some other interesting changes in the financials of acquirers. For instance, we observe a significant increase in capital expenditures, SG&A and staff expenditures. These increases in the expenditures might be the reason of declined profitability after acquisitions. Finally, we looked at the change in intangibles and goodwill. There is a significant and positive increase in goodwill. This indicates that acquirers usually pay premium for targets and reflect these in their financial statements as goodwill. However, when we look at the intangibles as a % of total assets, we see a decline of around 5% in the year following the acquisition.

Table 2: Turkish Acquirers` Post vs. Pre-Acquisition Comparison

|                                  | One year   |         | Two years  |         |
|----------------------------------|------------|---------|------------|---------|
|                                  | Mean Diff. | P-value | Mean Diff. | P-value |
| Profitability                    | -0.03      | 0.232   | -0.08**    | 0.028   |
| Sales (log)                      | 0.15       | 0.115   | 0.18       | 0.186   |
| Return on Investment (ROA)       | -0.01      | 0.297   | -0.01      | 0.327   |
| Size                             | 0.22***    | 0.006   | 0.26**     | 0.036   |
| Capital Expenditures             | 0.32**     | 0.050   | 0.26       | 0.226   |
| R&D Intensity                    | 0.00       | 0.453   | 0.00       | 0.868   |
| SG&A Expense (as a % of Sales)   | 0.03**     | 0.014   | 0.03**     | 0.018   |
| Leverage                         | -0.36***   | 0.000   | 0.05***    | 0.000   |
| Intangibles (as a % of Assets)   | -0.06***   | 0.000   | -0.05***   | 0.000   |
| Goodwill                         | 0.35*      | 0.051   | 0.291      | 0.386   |
| Staff Expenses (as a % of Sales) | 0.04       | 0.281   | 0.02**     | 0.020   |

Note: This table reports the results for the comparison of post and pre-acquisition. The sample of Turkish acquirers is used for this analysis. One year represents the difference between the acquisition year (t) and the pre-acquisition year (t-1). Growth variables for one year columns growth from the acquisition year (t) to post-acquisition year (t+1). In the second part of the table (two years), the comparison is made between one year after the acquisition (t+1) and the year before the acquisition (t-1). The growth variables in these analyses are calculated as the growth from t-1 to t+1 (for two years). The first column for each analysis is the mean differences and the second column is the associated p-value of the t-test. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

### 4.2. Turkish Acquirers vs. Non-Acquirers

For the next set of hypotheses, we conducted analyses to compare the Turkish acquirers with companies that had no acquisition activity. We did this for two time periods, the year that an acquisition took place and the year after the acquisition. In some cases, the acquisition took place close

to the end of the year, so that the effects were realized in the following year; hence, it was critical to examine the year after an acquisition as well. The results of these analyses are presented in Table 3. We calculated the annual growth for selected variables in the year after the acquisition and present comparisons of these in the first two columns. In the next columns “two year”, we compared the two-year growth rates for selected variables. Growth in this analysis is expressed as a function of the change from the pre-acquisition to the post-acquisition year. The values in the table are the mean differences between non-acquirer companies and acquirers.

First six row are about the performance variables. The only performance indicator that we found difference between acquirers and non-acquirers is the profitability growth. We find that acquirers increase their profitability more than non-acquirer companies do when we look at the post-acquisition year. There is no significant difference between two groups of firms in terms size, which make our comparison more valid. With regard to the expenditures of firms, capital expenditures, R&D intensity and staff expenses are higher in acquirers compared to non-acquirer Turkish firms. However, there is not a significant difference between them in terms of SG&A expenses. According to our expectations, acquirers have a higher leverage and intangibles.

Finally, we conducted multivariate analysis to see how Turkish acquirers differ from non-acquirers. The results of the regression analyses are presented in Table 4. We used five dependent variables in our analyses, profitability, profitability growth, sales growth, ROA and ROA growth. We used size, R&D intensity and intangibles as the control variables as they have potential to affect performance of firms. The main interest in this regression analysis is the dummy variable of Acquisition. This variable takes a value of 1 if the company has engaged in acquisition and zero otherwise. The coefficient of the acquisition variable is positive and significant in three out of five models. This indicates that acquirer perform better than non-acquirers in terms of profitability, profitability growth and ROA growth. In other words, acquirers help Turkish performs to have a better performance compared to the non-acquirer Turkish firm in general.

Table 3: Turkish Acquirers vs. Turkish Companies – Univariate Analysis

|                                  | One year    |         | Two years  |         |
|----------------------------------|-------------|---------|------------|---------|
|                                  | Mean Diff.  | P-value | Mean Diff. | P-value |
| Profitability                    | -0.008      | 0.738   | 0.024      | 0.360   |
| Profitability Growth             | -0.056      | 0.889   | -1.530***  | 0.004   |
| Sales (log)                      | 0.343       | 0.283   | 0.117      | 0.709   |
| Sales Growth                     | -0.018      | 0.785   | -0.185     | 0.217   |
| Return on Investment (ROA)       | -0.003      | 0.633   | -0.005     | 0.430   |
| Return on Investment Growth      | -0.150      | 0.624   | -0.156     | 0.641   |
| Size                             | -0.036      | 0.905   | -0.268     | 0.377   |
| Capital Expenditures             | -0.820**    | 0.015   | -0.838**   | 0.014   |
| R&D Intensity                    | -0.021***   | 0.000   | -0.018***  | 0.000   |
| SG&A Expense (as a % of Sales)   | -0.013      | 0.287   | -0.011     | 0.414   |
| Leverage                         | -0.051***   | 0.000   | -0.027     | 0.175   |
| Intangibles (as a % of Assets)   | -0.04363*** | 0.000   | -0.046***  | 0.000   |
| Goodwill                         | -0.193      | 0.636   | -0.468     | 0.26    |
| Staff Expenses (as a % of Sales) | -0.039**    | 0.001   | -0.024**   | 0.037   |

**Note:** This table reports the results for the comparison of Turkish companies with acquisition and Turkish companies without acquisition. The sample of all Turkish companies is used for this analysis. One year represents the difference between indicated variables for the year that acquisition takes place (t). Growth variables in this column represent the growth from the acquisition year (t) to post-acquisition year (t+1), which is one-year growth. In the second part of the table (two years), the comparison is made between two group of companies for the year following the acquisition (t+1). The growth variables in these analyses are



calculated as the growth from year before the acquisition (t-1) to the year after acquisition (t+1), which is the growth for two years. The first column for each analysis is the mean differences and the second column is the associated p-value of the t-test. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4: Turkish Acquirers vs. Turkish Companies – Multivariate Analysis

|                     | Profitability      | Profitability Growth | Sales Growth         | Return on Investment (ROA) | Return on Investment Growth |
|---------------------|--------------------|----------------------|----------------------|----------------------------|-----------------------------|
|                     | (1)                | (2)                  | (3)                  | (4)                        | (5)                         |
| Acquisition         | 0.042*<br>(1.72)   | 0.857*<br>(1.73)     | 0.066<br>(0.6)       | 0.016<br>(1.34)            | 0.613*<br>(1.74)            |
| Size                | 0.004***<br>(3.11) | 0.073*<br>(1.77)     | 0.048***<br>(6.45)   | 0.003***<br>(3.24)         | 0.062<br>(1.57)             |
| R&D Intensity       | 0.589**<br>(2.23)  | -0.935<br>(-0.25)    | 0.012<br>(0.04)      | 0.271**<br>(2.36)          | 1.017<br>(0.44)             |
| Intangibles         | 0.013<br>(0.23)    | -0.883<br>(-0.82)    | 0.265<br>(0.82)      | -0.070**<br>(-2.11)        | -0.87<br>(-0.85)            |
| Constant            | 0.008<br>(0.64)    | -0.841**<br>(-2.42)  | -0.174***<br>(-3.66) | 0.023***<br>(3.37)         | -0.738**<br>(-2.36)         |
| N                   | 1261               | 1179                 | 1499                 | 1261                       | 1177                        |
| Adj. R <sup>2</sup> | 0.021              | 0.001                | 0.112                | 0.018                      | 0.001                       |

Note: This table reports the results of the multivariate analysis for the impact of acquisition on Turkish companies' performance. The sample of all Turkish companies is used for this analysis (both acquirers and non-acquirers). Heteroskedasticity-robust standard errors are used. Dependent variable is the performance of the firm, which is measured for the year that acquisition takes place. All of the dependent and independent variables are winsorized at 1% level. The t-values associated with each coefficient are provided in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

## 5. Discussion

Acquisition is an important phenomenon for both policy makers and firms. It is a commonly used growth strategy whereby firms acquire other firms, related or unrelated, with the hope of creating synergies (Walter and Barney, 1990). Acquisitions are a critical part of any healthy economy and the primary way that firms create value for their shareholders and owners (Dalkilic and Cagle, 2015). However, the evidence with regard to the outcomes of acquisitions is mixed (Selçuk et al., 2016). There are studies that find positive outcomes (e.g., Golubov and Xiong, 2020; Powell and Stark, 2005), others that find negative outcomes (Chaudary and Mirza, 2017; Yeh and Hoshino, 2002), and yet others that report insignificant findings (Moeller and Schlingemann, 2005). Although the role of emerging markets in world investment flows has increased tremendously (Stiebale and Trax, 2011; Othchere and Oldford, 2018), the majority of studies about M&As are based on developed markets (e.g., Jensen-Vinstrup, Rigamonti, and Wulff, 2018; Li, Qiu, and Shen, 2018). Firms from emerging markets have been more aggressive in terms of engaging in acquisitions (Xie, Huang, Stevens, and Lebedev, 2019), and this has created a need for studies about acquisitions in emerging markets (e.g., Zhang, Engang, and Sminia, 2019). In addition, capital inflows from other markets are crucial for the prosperity of an economy, as well as of the firms in emerging markets. Companies in these markets have more resource deficiencies (Cui and Xu, 2019) and need resources and expertise to catch up with firms in developed markets (Luo & Bu, 2018). International acquisitions play a critical role in providing the resources needed for emerging market firms to grow internationally (Liu & Meyer, 2018). This makes acquisitions important for emerging markets. As one of the leading emerging markets in the world, Turkey has seen a great increase in acquisition activity (Alhanhanah, Akbalik, and Akosile, 2019; Oelger and Schiereck, 2011), which creates a need to analyze acquisition activity in this market.

The empirical evidence with regard to Turkish acquisitions is limited. The majority of the studies about the outcomes of Turkish acquisitions have focused on the stock market's reaction to the acquisitions (e.g., Akben-Selçuk, 2015; Hekimoğlu ve Tanyeri, 2011). These studies examine how the Turkish market reacts to acquisitions, but they do not provide deep insights about the outcomes of acquisitions. Stock market reactions provide good information about how markets feel about acquisitions, but they are short-term reactions based on a market's limited knowledge. Therefore, to see in detail the impact of acquisitions, studies in this area should be supplemented by studies of the financial indicators of the acquirers. Some studies have examined Turkish acquisitions in more detail, but they are mostly case studies or investigations of a specific industry; hence, it is hard to make generalizations about the outcomes of acquisitions in Turkey based on their findings. Moreover, these studies depend mainly on stock prices and some basic indicators about firms for limited time periods. In sum, there is a lack of research that looks in detail at the financial outcomes of Turkish acquisitions. We aimed to fill this gap by analyzing acquisitions in light of various financial indicators, using a comprehensive time frame, and by seeking insights into the impact of these acquisitions in general, rather than examining a specific industry or time period.

To pursue this study, we examined Turkish acquisitions that occurred between 1990 and 2017 and evaluated the financial outcomes of these acquisitions from different perspectives. That is, we analyzed the performance outcomes of the acquisitions, as well as changes in other financial indicators, such as capital expenditures; expenses for R&D, staff, administration, and so forth; intangibles; and goodwill, which is a departure from most of the studies in the literature, which focus on market returns (Mulherin, Netter, and Poulsen, 2017). As our goal was to provide a detailed picture of acquisition outcomes, we looked at both pre- and post-acquisition values to evaluate changes. Also, to gauge the real effects of acquisitions, we used Turkish companies that had not engaged in any acquisitions as a benchmark. Through these detailed and comprehensive analyses, we were able to construct a full picture of the outcomes of acquisitions.

Over a two-year time frame, the comparison of pre- and post-acquisition conditions revealed a slight decline in profitability. However, there was an increase in most of the other financial variables, including size, capital expenditures, SG&A and staff expenses, and goodwill. These findings indicate that acquisitions change the acquirer's dynamics significantly. Firms spend more money on items that have the potential to increase their competitiveness, as we observed in regard to several expenditures, and this causes a decline in profitability in the short term, but we believe that these are investments in firm resources that will enhance the competitiveness of acquirers in the long term. We interpret this spending as a change in a firm's strategy, namely, a move to invest more in intangible resources for the company. We also compared the Turkish acquirers' financials with those of non-acquirer firms to see how the two differ, and noted that acquirers perform better than non-acquirers in terms of profitability and ROA. We observe a similar pattern in the growth of the performance indicators. Therefore, we can say that Turkish acquirers are more successful than their non-acquirer counterparts. We also investigated other variables besides the performance indicators. Acquirers had higher values than non-acquirer Turkish companies in capital expenditures, R&D, SG&A and staff expenses. This is probably due to the growth ambitions of these companies, which are more eager to grow than an average Turkish firm and, therefore, invest more in research and development, capital expenditures, and human resources. This is consistent with what we see in pre- and post-acquisition financial indicators. The increase in staff expenses can also be attributed to the efforts of an acquirer to retain key managers in a target firm, as these often consider leaving after a takeover (Steigenberger & Mirc, 2019). With regard to leverage and intangibles, again, acquirers have higher values than non-acquirers, which is in line with our expectations. Firms increase their debt levels to finance acquisitions and usually pay premiums. The increase in goodwill can be explained by the premium prices paid for targets. The

positive results we found in terms of the profitability of acquirers are consistent with studies in the literature that report positive market returns after an acquisition (e.g., Hu, Li, Li, & Wang, 2019; Oelger & Schiereck, 2011). However, these studies tend to focus solely on market reactions and do not take financial performance into consideration. The majority of research about Turkish acquisitions is based on case studies (e.g., Semerciöz & Çakınberk, 2003; Ateşoğlu, Coşkun & Kargın, 2016) rather than on large samples of empirical data like the current study. In sum, our results are consistent with the findings in the literature, but we provide several new insights about the financials of Turkish acquirers, which have not been studied before. Our study demonstrates that acquisitions affect not only the performance of firms, but also their strategies, as reflected in expenditure decisions.

Our findings have several implications for both scholars and practitioners. This is one of the very few studies that look at the financial indicators of acquirers. Moreover, it uses the largest and most comprehensive sample to date in terms of its time frame. It contributes fresh insights to the acquisition literature on Turkey by offering a broad and detailed picture of acquisition outcomes. We found that the Turkish acquirers differed significantly from the non-acquirer companies in their characteristics and performance. The findings have several implications for managers who are exploring acquisition opportunities in the interest of either a target or an acquirer; for instance, there are valuable insights into how acquisitions can change acquirers in terms of several financial indicators. This knowledge makes it possible to consider the desired outcomes of an acquisition in light of what actually can happen following an acquisition, and this study can help decision makers negotiate an acquisition.

Our study has also opened new avenues for future research. First, we hope to attract more interest in this important phenomenon in the Turkish context. For instance, the underlying reasons for the differences between Turkish acquirers and other Turkish firms is a potential area for future research. We have documented the outcomes of Turkish acquisitions, but we need a deeper understanding of the reasons for these outcomes. Another area for future research is identifying success factors for Turkish acquisitions. We still do not know what differentiates a successful acquisition from an unsuccessful one.

We believe that our study shed lights on Turkish acquisitions and provides a good picture of what happens in the aftermath. It also enabled us to compare acquiring and non-acquiring firms to see how acquisition as a growth strategy affects firms in the Turkish context.

#### References

- Agrawal, A., Jaffe, J. and Mandelker, G. (1992). The Post-Merger Performance of Acquiring Firms: A Re-examination of an Anomaly. *Journal of Finance*, 47 (4), 1605-21.
- Akben Selçuk, E. and Altıok Yılmaz, A. (2011). The Impact of Mergers and Acquisitions on Acquirer Performance: Evidence from Turkey. *Business and Economics Journal*, 22, 1-8
- Akben Selçuk, E. (2015). Do Mergers and Acquisitions Create Value for Turkish Target Firms? An Event Study Analysis. *Procedia Economics and Finance*, 30, 15-21.
- Akben Selçuk, E., Köksal, E. and Altıok Yılmaz, A. (2016). The Impact of Mergers and Acquisition Transactions at the Company and Industry. *Business & Management Studies: An International Journal*, 4(1), 48-62.
- Akdoğu, E. (2011). Türkiye’de 1988-2008 Dönemindeki Firma Birleşmeleri, Birleşme Dalgaları ve Genel Tablo. *Muhasebe ve Finansman Dergisi*, 52, 137-152.
- Akdoğu, E. (2012). 2005-2008 Dönemi Frma Birleşmeleri Dalgasında Yabancı ve Yerli Alıcı Firma Profilleri. *Muhasebe ve Finansman Dergisi*, 55, 51-70

- Alhanhanah, W.M., Akbalik, M. and Akosile, A.L. (2019) Merger and Acquisition Patterns and Trends: An Evidence of an Emerging Economy, Turkey 2014-2018. *Open Access Library Journal*, 6: e5837. <https://doi.org/10.4236/oalib.1105837>
- Ateşoğlu Coşkun, S., and Kargın, S. (2016). Sınır ötesi birleşme ve satın almaların bankaların finansal performansına etkileri: Üç banka üzerinde CAMELS analiz. *Muhasebe ve Finansman Dergisi*, 69, 41-60.
- Bendaş, G. (2015). The Effects of Acquisitions on Firm Value, Evidence from Turkey. *Dogus University Journal*, 16(1), 79-90.
- Billett, M., and Qian, Y. (2008). Are Overconfident CEOs Born or Made? Evidence of Self Attribution Bias from Frequent Acquirers. *Management Science*, 54 (6), 1037-1051.
- Chaudary, S., and Mirza, N. (2017). Domestic and cross-border returns to bidders in acquisitions into the E.U.. *Economic Research-Ekonomska Istraživanja*, 30 (1), 1021–1032.
- Cui, L., and Xu, Y. (2019). Outward FDI and profitability of emerging economy firms: Diversifying from home resource dependence in early stage internationalization. *Journal of World Business*, 54(4), 372-386.
- Çakır, Hafize, M., and Gülcan, Z. (2012). Şirket Birleşme ve Devralma Kararlarının Hisse Senedi Getirilerine etkisi. *İSMMM Mali Çözüm Dergisi*, Eylül-Ekim, 79-108.
- Dalkılıç, A. F., and Cagle, M. N. (2015). Critical Success Factors in Merger & Acquisition Strategies: Evolution of Turkish Market. *İşletme Fakülte Dergisi*, 16(2), 117-133.
- Genç, A., and Coşkun, E. (2013). Birleşme ve Satın Alma Duyurularında Anormal Getiri: Satın Alan Şirket ve Hedef Şirket Açısından bir İnceleme. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 17(3), 359-376.
- Genc, Ö. (2016). Comparison of International and Domestic Acquisitions: A Literature Review. *Yönetim ve Ekonomi Araştırmaları Dergisi*, 14 (4), 128-149.
- Genc, Ö., and Kalkan, B. (2018). Turkish Mergers and Acquisitions (M&As): A Historical View of Characteristics, Trends, and Directions. *International Journal of Management Economics and Business*, 14(3).
- Geyikdağı, N., and Karaman, F. (2013). Foreign Direct Investment and Profit Transfers: The Turkish Case, *Journal of Balkan and Near Eastern Studies*, 15(4), 383-395.
- Golubov, A., and Xiong, N. (2020). Post-acquisition performance of private acquirers. *Journal Of Corporate Finance*, 60, 101545.
- Gregory, A., and O'Donohoe, S. (2014). Do cross border and domestic acquisitions differ? Evidence from the acquisition of UK targets. *International Review Of Financial Analysis*, 31, 61-69.
- Hekimoglu, M. H. and Tanyeri, B. (2011). Türk Şirket Birleşmelerinin Satın Alınan Şirketlerin Hisse Senedi Fiyatları Üzerindeki Etkileri. *İktisat, İşletme, ve Finans*, 26(308), 53–70.
- Hu, N., Li, L., Li, H., and Wang, X. (2019). Do mega-mergers create value? The acquisition experience and mega-deal outcomes. *Journal of Empirical Finance*.
- İlarıslan, K. and Aşıkoğlu, Rıza. (2012). Birleşme ve Satın Almaların İşletmelerin Finansal Performansı Üzerindeki Etkilerinin İncelenmesi: Panel Veri Analizi. *Finans Politik ve Ekonomik Yorumlar*, 49(572), 59-78.

- Jensen-Vinstrup, M., Rigamonti, D., and Wulff, J. (2018). European cross-border acquisitions: Long-run stock returns and firm characteristics. *Journal Of Multinational Financial Management*, 47-48, 31-45.
- Li, K., Qiu, B., and Shen, R. (2018). Organization Capital and Mergers and Acquisitions. *Journal Of Financial And Quantitative Analysis*, 53(4), 1871-1909.
- Liu, Y., and Meyer, K. E. (2018). Boundary spanners, HRM practices, and reverse knowledge transfer: The case of Chinese cross-border acquisitions. *Journal of World Business*.
- Luo, Y., and Bu, J. (2018). Contextualizing international strategy by emerging market firms: A composition-based approach. *Journal of World Business*, 53(3), 337-355.
- Mandacı, P. E. (2005). Şirket Birleşmelerinin Şirketlerin Finansal Yapı ve Performanslarına Etkileri. *İktisat İşletme ve Finans*, 20, 60-67.
- Moeller S. B. and Schlingemann F. P. (2005). Global Diversification and Bidder Gains: A Comparison between Cross-Border and Domestic Acquisitions. *Journal of Banking & Finance*, 29(3), 533-564
- Mulherin, J. H., Netter, J. M., & Poulsen, A. B. (2017). The evidence on mergers and acquisitions: A historical and modern report. In *The Handbook of the Economics of Corporate Governance* , 1, 235-290. North-Holland.
- Oelger, M. and D. Schiereck. (2011) Cross-border M&A and International Stock Market Integration - Evidence from Turkey. *International Journal of Economics Research*, 2(3), 40- 55.
- Otchere, I., and Oldford, E. (2018). Cross-border acquisitions and host country competitiveness. *Journal Of Business Finance & Accounting*, 45(9-10), 1260-1292.
- Powell R. G. and Stark, A.W. (2005). Does Operating Performance Increase Post-Takeover for UK Takeovers? A Comparison of Performance Measures and Benchmarks. *Journal of Corporate Finance*, 11, 293-317.
- Sarıca, S., (2008). ABD, AB ve Türkiye'nin firma Birleşmelerine Yaklaşımı. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 4(4),. 51-82.
- Semerçioz, F., and Çakınberk, A. (2003). Stratejik ittifaklar: Türk ilaç dağıtım kanalından bir örnek. *Yönetim Dergisi*, 14(46): 23-39.
- Spyrou, S., and Siougle, G. (2007). Mergers and Acquisitions of Non-Financial Firms in Europe: The Case of the Athens Stock Exchange. *Applied Economics Letters*, 14 (7), 523-527.
- Steigenberger, N., and Mirc, N. (2019). Should I stay or should I go? Multi-focus identification and employee retention in post-acquisition integration. *Human Relations*, 0018726719847521.
- Stiebale, J., and Trax, M. (2011). The effects of cross-border M&As on the acquirers' domestic performance: firm-level evidence. *Canadian Journal Of Economics/Revue Canadienne D'économique*, 44(3), 957-990.
- Şahin, O. (2016). Türkiye'deki Şirket Birleşmeleri Verilerinin Yıllar İtibariyle Analizi ve Dünya Geneli, ABD, AB, Asya-Pasifik Verileri ile Karşılaştırılması. *Akademik Araştırmalar ve Çalışmalar Dergisi (AKAD)*, 8 (15), 229-255.
- Tamosiuniene, R., and Duksaite, E. (2009). The Importance of Mergers and Acquisitions in Today's Economy. *KSI Transactions on Knowledge Society*, 2(4), 11-15.

- Turğay, İ., Dördüncü, H. and Öz, T. (2014). Havayolu Sektöründe Birleşme ve Satın Almaların Mali Dezavantajlarının Örnek Olay Üzerinden İncelenmesi. *Trakya University Journal of Social Science*, 16(1), 195-214.
- UNCTAD (2008), *World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge (Includes CD-ROM)*, United Nations, New York.
- UNCTAD (2018), *World Investment Report 2018: Investment and New Industrial Policies*, United Nations, New York.
- Walter G. A., and Barney J. B. (1990). Management Objectives in Mergers and Acquisitions. *Strategic Management Journal*, 11, 79-86.
- Xie, E., Huang, Y., Stevens, C. E., and Lebedev, S. (2019). Performance feedback and outward foreign direct investment by emerging economy firms. *Journal of World Business*, 54(6), 101014.
- Yeh T. M., and Hoshino, Y. (2002). Productivity and Operating Performance of Japanese Merging Firms: Keiretsu-related and Independent Mergers. *Japan and the World Economy*, 14, 347-366.
- Yildirim, Canan. (2010). Cherry Picking or Driving Out Bad Management: Foreign Acquisitions in Turkish Banking. *Economic Research Forum Working Paper 568*.
- Yıldırım, C. (2017). Turkey's Outward Foreign Direct Investment: Trends and Patterns of Mergers and Acquisitions. *Journal of Balkan and Near Eastern Studies*, 19(3), 276-293.
- Zhang, Y., Enang, E., and Sminia, H. (2019). Post-acquisition integration of emerging market multinational corporations: a research agenda. *Multinational Business Review*, 27(1), 4-34.
- 6 ayda 8 milyar dolarlık evlilik. (2018). *Dünya Gazetesi*. Retrieved from <https://www.dunya.com/ekonomi/6-ayda-8-milyar-dolarlik-evlilik-haberi-421452>