ISTANBUL BILGI UNIVERSITY

INSTITUTE OF GRADUATE PROGRAMS

INTERNATIONAL FINANCE MASTER'S DEGREE PROGRAM

THE IMPACT OF MERGERS AND ACQUISITIONS ON STOCK PRICES OF TURKISH ACQUIRER COMPANIES IN 2000S: EVIDENCE FROM BORSA ISTANBUL

KORAY ÇELİK

118664006

Asst. Prof. Ebru REİS

ISTANBUL

2021

THE IMPACT OF MERGERS AND ACQUISITIONS ON STOCK PRICES OF TURKISH ACQUIRER COMPANIES IN 2000S: EVIDENCE FROM BORSA ISTANBUL

2000'Lİ YILLARDAKİ ŞİRKET BİRLEŞME VE DEVRALMALARININ ALICI ŞİRKETLERİN HİSSE SENEDİ FİYATLARINA ETKİSİ: BORSA İSTANBUL'DAN ÖRNEKLER

KORAY ÇELİK

118664006

Tez Danışmanı: Dr. Öğr. Üyesi Ebru Reis

İstanbul Bilgi Üniversitesi

Jüri Üyesi: Prof. Dr. Cenktan Özyıldırım

İstanbul Bilgi Üniversitesi

Jüri Üyesi: Prof. Dr. Ömür Süer Baklacı

Galatasaray Üniversitesi

Tezin Onaylandığı Tarih: 29.06.2021

Toplam Sayfa Sayısı: 70

Anahtar Kelimeler (Türkçe)

1) Birleşme

2) Satın alma

3) Birleşme dalgaları

4) Olay etüdü

5) Kümülatif anormal getiri

Anahtar Kelimeler (İngilizce)

1) Merger

2) Acquisition

3) Merger Waves

4) Event study

5) Cumulative abnormal return

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my supervisor Dr. Ebru Reis who support me to work on this topic and her excellent guidance, caring, patience from beginning to the end of my thesis process.

ABSTRACT

The aim of this research is to examine the short- and long-term impact of mergers and acquisitions (M&As), occurred between 2000 and 2017 in Turkey, on stock prices of acquirer companies using the event study methodology. Cumulative abnormal return (CAR) and buy and hold abnormal return (BHAR) are analyzed for different event window periods to understand the impact of M&As in the short and the long-term, respectively. The largest event window covers the period of 10 trading days before and after the announcement date for the short-term period. On the other hand, 3 years is chosen as an event window to make better comparison with the literature for the long-term period. The total sample consist of 123 completed mergers and acquisitions listed on Borsa Istanbul. In addition to the full sample analysis, three subgroups which are the “Local vs. Cross border M&As”, the “Related (non-conglomerate) vs. Unrelated (conglomerate) M&As” and “M&As before 2006 vs. M&As after 2006” are elaborated and their impact on stock prices are measured. No statistically significant results are obtained for the full sample and the other sub-groups. According to the results of this study, M&As do not seem to have any significant effect on the acquirer companies’ share prices both in the short-and long-term period in Turkey.

Key Words: Merger, acquisition, merger waves, event-study, cumulative abnormal return

ÖZET

Bu çalışmanın amacı, Türkiye'de 2000-2017 yılları arasında gerçekleşen birleşme ve satın almaların, devralan şirketlerin hisse senedi fiyatları üzerindeki kısa ve uzun vadeli etkisini olay çalışması metodolojisi ile incelemektir. Kümülatif anormal getiri (CAR) ve al ve tut stratejisinine göre anormal getiri (BHAR), sırasıyla kısa ve uzun vadeli analizlerde birleşme ve satın almaların etkisini anlamak için farklı olay penceresi dönemlerinde analiz edilmiştir. En büyük olay penceresi, kısa vadeli dönem için ilan tarihinden önceki ve sonraki 10 işlem gününü kapsar. Diğer yandan, literatürle daha iyi karşılaştırma yapmak için olay penceresi olarak 3 yıl seçilmiştir. Bütün örneklem Borsa İstanbul'da listelenen 123 tamamlanmış birleşme ve satın almadan oluşmaktadır. Bütün örneklem analizine ek olarak, "yerel ve sınır ötesi birleşme ve satın almalar", "Sektör olarak ilişkili ve ilişkisiz birleşme ve satın almalar" ve "2006 öncesi ve sonrası satın almalar" olmak üzere üç alt grup ele alınmış ve hisse senedi fiyatları üzerindeki etkileri ölçülmüştür. Sonuç olarak, tüm örneklem ve alt gruplar için istatistiksel olarak anlamlı bir sonuç elde edilememiştir. Bu çalışmanın sonuçlarına göre, birleşme ve satın almaların Türkiye'de hem kısa hem de uzun vadede şirketlerin hisse fiyatları üzerinde önemli bir etkisinin olmadığı görülmektedir.

Anahtar Kelimeler: Birleşme, satın alma, birleşme dalgaları, olay etüdü, kümülatif anormal getiri

TABLE OF CONTENTS

ACKNOWLEDGEMENT iii
ABSTRACT iv
ÖZET v
TABLE OF CONTENTS vi
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF ABBREVIATIONS x
INTRODUCTION 1
CHAPTER 1 4
UNDERSTANDING MERGERS AND ACQUISITIONS 4
- 1.1 Definitions 4
- 1.2 Types of Mergers and Acquisitions 5
  - 1.2.1 Horizontal M&As 5
  - 1.2.2 Vertical M&As 6
  - 1.2.3 Conglomerate M&As 7
- 1.3 Motives behind Mergers and Acquisitions 8
  - 1.3.1 Efficiency Gains 9
  - 1.3.2 Synergy Gains 10
  - 1.3.3 Financial Motives 12
  - 1.3.4 Diversification 13
  - 1.3.5 Reasons Related with Management's Benefit 14
- 1.4 Waves of Mergers and Acquisitions 16
  - 1.4.1 First Wave (1893 – 1904) 17
  - 1.4.2 Second Wave (1919 – 1929) 17
  - 1.4.3 Third Wave (1955 – 1973) 18
  - 1.4.4 Fourth Wave (1981 – 1989) 19
  - 1.4.5 Fifth Wave (1993 – 2000) 20
  - 1.4.6 Sixth Wave (2003 – 2007) 21
  - 1.4.7 Seventh Wave (2010 – Present) 22

CHAPTER 2 22
LITERATURE REVIEW 22
  - 2.1 Developed Markets 23
  - 2.2 Emerging Markets 29

2.3 Turkey....32
CHAPTER 3....36
METHODOLOGY & SAMPLE....36
3.1 Cumulative Abnormal Return Calculation (CAR)....37
3.2 Buy and Hold Abnormal Return Calculation (BHAR)....39
3.3 Sample....41
3.4 Sample Description....41
CHAPTER 4....43
EMPIRICAL RESULTS....43
4.1 Full Sample....44
4.2 Related vs. Unrelated Businesses....45
4.3 Target Country: Cross Border vs. Local....46
4.4 Before 2006 vs. After 2006 M&As....47
CHAPTER 5....48
CONCLUSION....48
5.1 Further Research....50
REFERENCES....51
APPENDIX....61
Table 3: Studies about short-term effect of M&As....61
Table 4: Key studies in developed countries are examined by BHAR Approach....62
Table 5: Descriptive Statistics....63
Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs)....67
CV....70

LIST OF TABLES

Table 1: Types of M&As

Table 2: M&A Waves

Table 3: Studies about short-term effect of M&As

Table 4: Key studies in developed countries are examined by BHAR Approach

Table 5: Descriptive Statistics

Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs)

LIST OF FIGURES

Figure 1: Merger and Acquisitions Worldwide

Figure 2: Deloitte 2012-2020 M&As Review Reports

Figure 3: Scheme of Horizontal and Vertical M&As

Figure 4: Estimation and Event Window

LIST OF ABBREVIATIONS

AR: Abnormal Return

BHAR: Buy and Hold Abnormal Return

BIST: Borsa Istanbul

CAR: Cumulative Abnormal Return

CAPEX: Capital Expenditures

CAPM: Capital Asset Pricing Model

CEE: Countries of Central and Eastern Europe

EMM: Emerging Market Multinationals

EU: European Union

IM: Index Model

IMAA: Institute for Mergers, Acquisitions and Alliances

LBO: Leveraged Buy-Out

M&A: Merger and Acquisition

MAR: Main Adjusted Returns Model

MBO: Management Buy-Out

NOK: Norwegian Krone

NYSE: New York Stock Exchange

UK: United Kingdom

US: United States

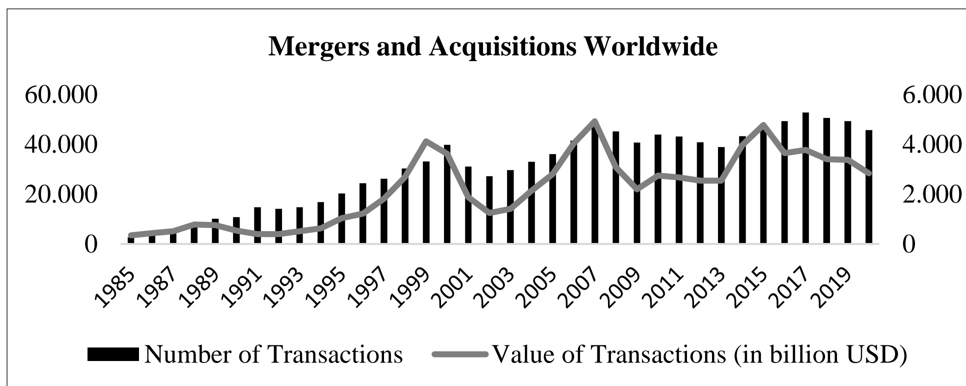
USA: United States of America

USD: United States Dollar

INTRODUCTION

In the competitive environment that is increasing with globalization, companies are trying to continue to operate on the one hand, and on the other hand they are trying to grow. Since the beginning of the 20th century, growth has become more important to the improvement of capital markets, the globalization of the economy and the world as a total, the development in industry, and high level of competition and marketing methods that acceleration to touch people. With the expansion of the market and sharply increased demand, growth has been inevitable for companies that want to maximize their market value. Corporate growth decisions are made for a variety of reasons such as taking advantage of high customer volume and revenue stream, cost cutting, financial or operational synergies, boosting production capacities, diversify business branch and ultimately increasing wealth. Today, people, firms or countries expect from their related parties to look for growth opportunities all the time. Such potential may occur either organically via its main business that serves on or inorganically. To prosper and enlarge inorganically, a lot of companies conduct M&As, that impact all related parties such as shareholder, staff and clients. It is expected that mergers and acquisitions have been important and hot topic for researchers and participants of finance sector. This topic continues to maintain their importance because some challenges in a competitive market push them to make M&As to be survivor. Not only to be survivor but also gaining much more wealth is conducted. Entities are expected to generate wealth for their shareholders that any strategic decisions made by corporations must be beneficial for all related parties. Figure 1 presents that M&A transactions have increased significantly all over the world in recent years. From 2000 to 2018, 790.000 transaction announcements with a value of $57 trillion were made.

Figure 1: M&As Worldwide



Sources: IMAA, 2018

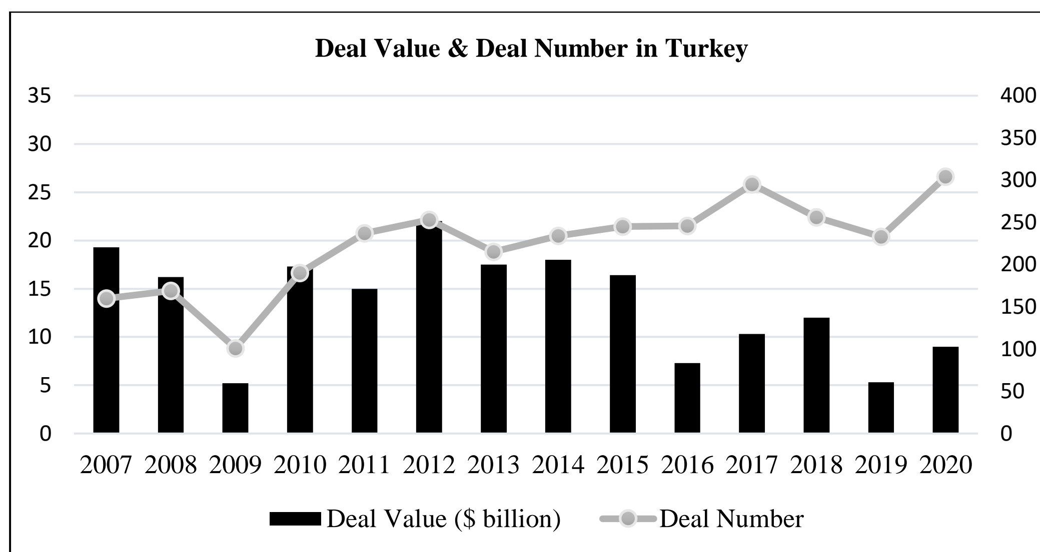
Deal related issues are substantial and challenging area of research related to finance and strategy. Many researchers analyse impact of merger and acquisitions to companies using different kind of methods such as the event study approach and accounting approach. Managers or companies may create a better financial report on paper with accounting games (Benston, 1982). Furthermore, stock prices are not easily manipulated by managers or the company itself. The stock prices are accepted to show the discounted company's future free cash flows and it directly influence valuation of the firm. In this reason, it is admitted as a one of the best ways to compute value of total enterprise and its share price as well. Event study method has become a dominated method as it eliminates other options such as the need for return analysis based on financial reports. There are many studies in the literature where event study analysis is used (McWilliams and Siegel, 1997). Furthermore, event studies have been a dominant approach since the 1970s and are widely used in M&A research (Martynova & Renneboog, 2008). Finance literature investigate whether M&A result in significant stock price return or not, both positive or negative way, in the short-run period (before and after the M&As enouncing day) and long-term period (from day 0 to 5 years).

The impact of M&As on stock prices has become a popular research topic in the literature since the 1970s in countries where M&As were dominant and capital markets were effective such as the USA and the UK. Many empirical studies concerning the M&As regarding M&A trends or waves, types of transaction, potential and actual wealth gains or losses for shareholders, are elaborated in the literature. In light of this, researchers always wonder that whether M&As are way of value creation or destruction. Higher wealth return might be achieved via multiple financial or operational synergies resulting from organizational effectiveness, increasing market volume, know-how and so on. While managers mainly focus on positive outputs of M&As, literature does not limit itself with one perspective and try to analyze every aspect of transactions. Previous studies have shown that M&A might result in both value creation and value destruction. There is no consensus in the literature on how M&A influences the equity price from announcement day to long range periods. However, based on literature, target companies seem a better performer than the bidders.

On the other hand, Turkey has started to experience a significant increase as a place of M&A transaction since 2000s, thanks to improvements in the regulatory environment, privatization, strong relationship with the EU and large number of foreign capitals. The total deal value and deal number are $66 billion and 1.240 between 2000 and 2006 respectively. On the other hand, the total value of the 2.600 transactions made in the period between 2007 and

2018 are approximately $177 billion in Turkey (IMAA, 2018). Though Turkey's M&A outlook is similar to those in the world, but it sometimes may be volatile due to serious economic and political challenges such as currency instability, inflation and political elections. For instance, as can be seen in Figure 2, after the 2009 global economic crisis, the total volume of M&A increases both in Turkey and the world till 2016. However, the macroeconomic and political challenges in Turkey lead to a sharp decline in M&A in 2016 and have still not reached the level of 2015. Figure 2 shows the total deal values and deal numbers in Turkey in recent years.

Figure 2: Deal Value and Deal Number in Turkey



Sources: Deloitte 2012-2020 M&A Review Reports

However, literature or research related with the wealth impact of M&A deals remains rare in Turkey, especially in comparison to the studies are prepared in the United States and European continent as a whole. Moreover, Turkish literature mainly focuses on impact of M&As over target companies rather than the acquirers and investigate short-term period effect instead of long-term period. Event study methodology dominates Turkish literature similarly developed countries while examining the wealth effect of M&As. This paper aims to contribute to Turkish literature how M&As influence the wealth effect of the acquirers on both short- and long-term period using event study methodology over the most recent data (2000-2017).

In the first chapter, definitions of M&A, structural forms of M&As, motives behind M&A and M&A waves are illustrated. Chapter two includes literature review that different empirical evidences in related to the effect of M&As for the acquirers both short and long-term

periods. Three main groups are selected to comprehensive understandings: developed markets, emerging markets and Turkey. In the third chapter, stages of the event study methodology are explained that I use to elaborate my sample. Some terms such as market model (MM), cumulative abnormal return (CAR) and buy and hold abnormal return (BHAR) are basically clarified through formulas. While, definition of estimation period and event window are made, features or specialities of my sample are elaborated. The fourth chapter is the part of the empirical analysis that presents the results that are supported by related tables. In the fifth and last chapter, I summarize whole study indicating some limitations and further research are explained.

CHAPTER 1

UNDERSTANDING MERGERS AND ACQUISITIONS

1.1 Definitions

Mergers and acquisitions, as a word, are used changeably, even if they are clearly defined differently as a legal transaction. A merger is the legal combination of two or more institutions through the transfer of all assets and liabilities from another institution or the creation of a single "new" entity. As part of a merger, the acquirer obtains all that the target possesses. For instance, in 1998, Digital Computers and Compaq entered into a merger agreement in which Compaq took over Digital Computers.

A consolidation, another type of merger, creates a new business by combining the core business and moving away from the old organizational structures. In other words, consolidation is a union of more than one corporation into a new single entity, in which the original corporations discontinue to operate and the shareholders are totaly transferred to new single corporation (Gaughan, 2007). For instance, in 1998, Citicorp and Traveler's Insurance Group make their consolidation public that led a new single entity which is called "Citigroup".

An acquisition may be described as buying majority of assets or shares of another corporation in a manner that gives the acquirer control over the acquired corporation. Takeover or acquisition activities are defined to enable acquiring companies to have more than half of ownership over the target companies (Singh, 1971). As an example, Disney acquired the entertainment giant Marvel by $4 billion at the end of 2000s.

In addition to these definitions above, the term of "takeover" is also widely used. It is an unclear term and mostly used in mergers when the bidder acquires an entire corporation. In general, a takeover refers solely to hostile deals, whereas term of "friendly" sometimes used to describe deals that there is mainly agreement between parties on the term of acquisitions (Gaughan, 2007).

Consolidation is often preferred to made where both companies are of similar in terms of different aspects while the merger is chosen among companies have different specialities (Gaughan, 2007). On the other hand, there may be differences in the positions of power of the actors, which makes the definition even more difficult. For instance, even if both sides are considered equal in a consolidation, there could be one acquirer that is more leading and stronger and one target too (Arnold, 2008).

1.2 Types of Mergers and Acquisitions

Merging activities vary based on the projections or targets of the companies. Following different waves of mergers that have occurred throughout history, types of mergers divide into three groups: horizontal, vertical and conglomerate mergers.

Table 1: Types of M&As

Type	Characteristic	Example
Horizontal M&A	is made among firms providing same goods and services or generating value from same sector	Hewlett-Packard and Compaq in 2011
Vertical M&A	involve two firms from the same industry operating at various stages of production.	Walt Disney acquired Pixar in 2006
Conglomerate M&A	takes place between two corporations whose activities and industries may be completely independent.	eBay and PayPal in 2002

Source: Moskovicz, 2018

1.2.1 Horizontal M&As

A horizontal M&As emerge when companies operating on the corresponding marketplace and generating revenues from similar goods or services to dominate the market share. This type is attractive to merging firms for the purpose of achieving economies of scale and reducing competition in the marketplace (Johnson, 1999). For example, Facebook acquired

WhatsApp messaging service for $19 billion in 2014. Horizontal mergers and acquisitions always present a competitive risk to markets because they lead to major powers that can dominate the market. The fundamental goals of horizontal mergers may provide increasing market share and reducing industry competitiveness; ensuring effective utilization of resources; collaborate on production technology; advantageous position in marketing and distribution channels (Akay, 1997).

While there are many advantages of horizontal merger, they may not be fully achieved and the merger may not contribute value which is targeted. Some problems may be occurred. For example; combining two different corporate cultures can be challenging and it may result in lack of harmony. Because of the different management styles, it can be difficult to develop a successful working relationship and build solid strategy. Another example is that some countries make laws and create regulations to prevent monopolization. If there is no any law which is protected by spesific authority in the sectors or markets, it is likely that the competition may decrease and companies start to become monopolistic in the sector (Weston, Mitchell & Mullherin, 2004). Another example is that if attention is focused on only demand projections, when the market reaches its maximum limits, the entity may be influenced in a harmful way (Kudelko, et al., 2015). Because of given examples above, the expected synergies may never be realized, which could reduce the overall value of the company.

1.2.2 Vertical M&As

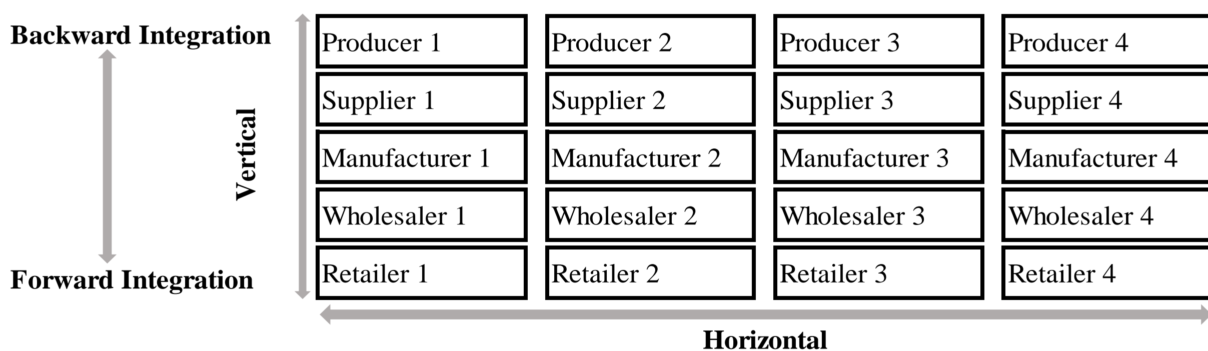
These sort of M&As take place among companies having operations or services in the similar value chain, producing similar goods and services, but varies by stage of production. For example, it could be a retailer merging with a wholesaler or a wholesaler merging with a manufacturer. Another example is that an automobile manufacturer can merge or acquire another company that manufactures tires. This type of merger and acquisition is mainly aimed at providing essential supply to the target company and avoiding any shortage of essential goods (Johnson, 1999). The vertical integration of mergers can be developed in two parts: backward and forward which is basically shown in figure 3. While, backward integration is made between suppliers and producers, forward integration is conducted between distributors or retail trader.

According to Dringoli (2016) the main reasons for vertical M&As are as follow reducing production cycle costs through combined stages; decreasing CAPEX as subject matter

firms take control of related phases such as resources; decreasing raw material costs by taking advantage of economies of scale; product quality assurance in the first phases through backward integration and output, distribution through direct integration; improvement of the all processes and controlling information within the supply chain; removal of intermediaries, resulting reduction in operational expenditures.

Although there are many benefits and advantages to make vertical merger, several challenges in the process too. They may be explained in the following manner (Ross et al., 2016). For instance; adapting in a new business segment can be painful for the all entity. Management may struggle to manage new and more complex business operations. Another example is that price competition on the procurement market by backward integration is directly eliminated that restricts selection opportunity of the company. In addition, vertical merger may cause lack of flexibility in the combined company.

Figure 3: Scheme of Horizontal and Vertical M&As



1.2.3 Conglomerate M&As

Contrary to other types of mergers, a conglomerate merger takes place between two companies whose activities and industries may be completely unrelated. It is also mentioned that conglomerate M&A is a hidden vertical merger (Gabrielsen, 2003). Conglomerate M&As are divided into two groups: pure and mixed conglomerate M&As. The first type consists of two companies carrying on business in separate markets. Second one, the merging parties aim to broaden their product list and potential marketplace. Mixed conglomerate M&As are also divided into two. First one is that “Product Extension M&As” which is a transaction between companies in the same business area that generate different but engaged goods and services. Second one is that Market Extension M&As are made among corporations from different marketplaces that provide revenues from similar goods and services.

The benefits of conglomerate merger may vary. For example, it offers the possibility of diversifying to spread the risk to reduce the volatility of profits and sales (Weston, Mitchell & Mullherin, 2004). Another benefit is that conglomerate mergers provide accessing new markets and approaching new customers. Another contribution is that one of the parties may provide a free marketing or sales platform to another one. For example, a company operates in the finance sector is acquired by a real estate corporation to provide easy and high number of house sales. Another benefit of conglomerate merger is that cross-selling of products may provide some advantageous to both parties such as revenue, profit or basically increasing customer baseline for the new entity. Moreover, a firm has surplus liquidity may not find profitable investment options to use it. Because of this reason if a firm search an appropriate investment opportunity, a conglomerate merger may be a proper and solid choice to jump new sector.

On the other hand, conglomerate merger may have some risks as well. For instance, successful reconciliation of business and corporate culture is often difficult. In addition, the acquirer company may lose its focus in the specific sector and conglomerate might struggle dealing with issues arising from separate industries. Another risk is that administrative problems may emerge because management of the firms may have not any direct know-how and experience in the industry that their target appear in (Jeon & Kim, 2004).

1.3 Motives behind Mergers and Acquisitions

Understanding the reasons of M&A deals requires not only examining the performance of a transaction, but also the motives why the transaction should occur. These motives may differ according to some social and economical factors in the country that the enterprise operates or serves (Piesse et al., 2007). Merger and acquisitions are strategic decisions and therefore the underlying reasons or motives for these transactions are generally complex and different from one transaction to another (Trautwein, 1990). There are many reasons why companies are having difficulty growing, choosing mergers and acquisitions to meet objective.

These motives have been developed over the years and explained in detail. A concurrent theory has been elaborated over the years. According to the theory of value maximization, companies might make M&As to increase shareholders wealth. Value generation may be achieved by cost cutting, efficiency, strengthening financial and operational power and so on in the marketplace.

Although, there are lots of value maximization potentials and motives, some M&As are evaluated as an unsuccessful. Researchers try to examine reasons of these failures. Despite, M&As are expected to be value generator for the acquiring company, this may result in the so-called principal agent problem, that defines the conflict of interests between the managers and the shareholders (Jensen & Meckling, 1976). Based empricial evidences, there is a discussion that some M&As may be made to maximize the benefit of managers. Furthermore, managers may focus on maximizing their own interest and may not think interests of shareholders of the company as much as themselves (Firth, 1980). After essential informations and definitions are discussed above, motives of M&As may be explained in the following parts.

1.3.1 Efficiency Gains

M&As generally create efficiency, consolidated production process results in less operational expenditures in comparison to independent enterprises. In other words, costs are minimized because overlapping processes can be eliminated. Farrell and Shapiro (2001) identified efficiencies related to technical effectiveness and synergies. According to the Farrell and Sharpio (2001), technical effectiveness refers to changes in the consolidated manufacturing capacities of each parties. Furthermore, synergies are defined as efficiency gains achieve via close integration of merged companies, and are intrinsically specific for one merger to another. The following three factors that drive efficiency gains are part of the definition of technical efficiency gains.

a) Scale or Size of Economies

This motive indicates that if production capacity is inclined, so that the optimum operational expenditures reduce. In other words, economies of scale occur when the outputs incline, the marginal cost of outputs decline. This is an essential target of the parties that make horizontal M&As. Merger of two companies have a chance to get rid of some expenditures that become duplicated after transaction. This may involve administrative expenditures, customer related cost such as call center, billing (can be consolidated on one paper) and printing cost and so on (Watson & Head, 2007). After the M&As, the large company may have similar team that are responsible with same duties so they may reduce number of employees as well. In addition, after the M&A consolidated company become stronger in terms of financial instruments such

lower cost of borrowings and better bargaining position. Large corporations may finance new investments or capital expenditures as easier as small ones.

b) Economies of Scope

This synergy type provides a cost advantage that while producing additional product or services, merged bodies may spend capital less than they produce as a separate entity. M&As often allow companies to share R&D spending to decline expenditures and diversify their business portfolio. For instance, two technology companies might merge each other to combine their R&D departments to produce products by spending less.

c) Vertical Integration

Companies may face differenct types of cost in each step of the business process from supplying raw materails to selling products to customers. Vertical integration is basically made to reduce costs in some steps. This directly eliminates operational expenditures and profit of margins are influenced in a positive way. Furhermore, firms may drop procurement risk by controlling the entire supply chain. For instance, some franchised restaurants built their own farm to protect themselves from scarce of meat. Moreover, they may establish, distribute and sell their own products, eliminating the need for external entities like manufacturers, transport or other logistical requirements. Additionally, there are some areas that companies expect to reach efficiency via vertical integration such as technical personnels, training and equipment.

1.3.2 Synergy Gains

Many researchers agree that the essential rationale of M&As are synergies. Synergy is the added value created by the combination of two or more companies that are unavailable to independent companies. Synergies directly influence to bargaining process of M&As. In other words, the acquirers may calculate high valuation value by adding on the basis of synergy effects and that is why acquirer pay premiums to their target company (Damodaran, 2005). In the following the M&A process, the value of the new entity becomes higher than the total of the single companies as separate body. For example, small company may struggle to sell their new product even if it has a better quality in compare to their rivals because of lack of sales distribution channels, financial power to support advertisement and launching process and

reputation. Making M&As with an institutionalized or well organized company is very likely to generate much more wealth. Synergy may derives from five different key points (Ehrhardt and Brigham, 2011). Firstly, operational effect comes from the size of the economy such as power of indicating price, mass production capacity, wide distribution channels and so on. Secondly, tax benefit imply that merged organizations assume a lower tax burden than individual organizations. Thirdly, as a financial impact share prices can rise although there are some transaction costs. Fourthly, market power increases with diminished competition in the sector or marketplace. However, these deals are neither desirable nor permissible in today's market. The last one is that M&As often take place for reasons of diversification. The company may make M&As so that they vary its main business areas by operating in the markets does not operate in before.

Intellectual Property, Expertise, Know-How & R&D

Parties to a merger and acquisition agreement may have different technological skills, a corporate culture, know-how, intellectual property such as copyright, trade-marks, patents, human capital, and those kinds of things. If the deal of M&A is finalized, all of these informations are shared each other.

The bidders may have some reasons to acquire target firms. For example, the acquirer might prevent from competition in the marketplace via making M&A. Furthermore, the bidder may increase potential financial power via benefit from targets if the acquirer is convinced that the target may have powerful position in the future due to the precious know-how, key employees with a high level of technical information (Akgüç, 1998).

If a company has an expertise in a specific field, it has to be competitor and creator to be survivor. Furthermore, it is very difficult to hire the best employees from the market and then maintains the success year by year. That is why the acquisition of the labour-holding company would be more targeted and fertile in a much shorter period of time (Berk & DeMarzo, 2014).

If the merged companies share their human capital, organisational cultures, patents or just their know-how, they will most likely make technological progress that corporations may benefit from potential opportunities to produce unique and profitable products (Roller, Stennek & Verboven, 2006). The acquisition of a target that has a high level of R&D or patent rather than spending directly on it results in savings.

Besides know-how is a very powerful asset that companies do not want to sell, share or lose. Firms may have technological developments againts other rivals that result in rising their market value. In this reason, the merged companies assert that by integrating their R&D, they will accelerate the introduction of higher quality or value added products and making some innovation to cut some expenditures.

1.3.3 Financial Motives

Whether growth is organic or inorganic is of greater concern to small and medium-sized enterprises. Small companies typically have difficulty growing with in-house resources. In these cases, the merger bid from large companies is accepted (Wild & Rapinet, 2007). Each company has a maximum financial capacity to finance its operations in the debt or stock markets. Without sufficient financial capacity, one business may merge with another to increase its financial capability. This means that a consolidated entity will have a higher financial capacity that can be used in other business development processes.

a) Tax Advantage

This is a strong rationale behind transactions and there are still ongoing discussions on this topic. Some companies may pay higher than value of the company. It may be related with potential positive synergies but there is a tax advantage issue as well. Thanks to financial regulations, company may indicate this extra payment as a liability to not make tax payment. M&As before the fourth wave are strongly motivated by tax advantages but in recent years, it has been more difficult to benefit from such agreements in a consequnce of laws are driven by spesific authorities in the countries (Gaughan, 2015). Furthermore, some countries provide lower tax burden to companies to absorb foreign direct investment.

Several options to come for the use of such a sort of excess cash that company has: the payment of dividends, the purchase of securities or their own shares and acquiring another company. The payment of dividends to shareholders may result in a sharp tax burden to the company. The purchase of securities has a medium advantage, but it is not sufficient to meet shareholders' expectations. Buying back market shares and reselling them can create an accumulation of capital, but that's all. However, entering into totally new business branch with the extra cash can cut future tax position of the firm. These tax benefits or any other motives

do not mean M&As should be done but these motives should be taken into consideration in the transaction process.

Gilson, Scholes, and Wolfson (1988) show that checking the accuracy and validity of receiving a tax benefit. According to them, for a small group of M&As, the reason could be remarkable. Furthermore, Hayn (1989) examined the importance of the merger tax benefit to the bidder and demonstrated the substantial existence of this relationship. In recent years, this tax issue is solved thanks to updated financial recording methodogly that if there is a M&A, tax payment of it can be shown as a separate section.

b) Cost of Borrowing

Small companies do not always have a power to borrow from banks. While they do, interest rates may not be as competitive because of liquidity constraints. In addition, large companies have better chance to borrow some debts from the banks in comparison to small entities. In this reason, one of the rationale of the deals borrow easily and cheaply (Berk & Demarzo, 2014).

c) Free-Cash Flow

Main target of the companies basically generates profits or cash after all expenditures are paid that there may emerge cash surpluss. This cash should be used properly to increase value of the company in the future. There are lots of opportunity to be done such as building new production area, distributing dividens, buying back companies own shares and so on. Furthermore, M&A is one of the valuable options as well. Firms may acquire some companies to consider future cash flow of the company. Even if huge payment is done in day 0, company may do this investment to have much more gain in the future.

In addition, some companies may have an objective to acquire the target that has cash surpluss. This reduces debts of the bidder side. Moreover, the acquirer can save itself from bankruptcy and provide lower borrowing cost as well (Jensen, 1986).

1.3.4 Diversification

Some operational and financial risks might be reduced by successful diversification of the firm. Company become more stable and increase its level of financial durability. Companies

have two alternatives for achieving their growth goals: organic growth and inorganic growth. If company prefer organic growth, they may struggle to reach the targets of the company for a long time. For example, obtaining know-how and being financially stable last a long time and there is no guarantee to make it as well. However, entity may have what they want to aim such as having more customers in the market or absorbing know-how thanks to the M&As. According to modern portfolio theory, acquisitions are used as an instrument to rise variety in the company (Markowitz, 1952). Based on this idea, enterprise value might be inclined via eliminating danger when company composes right portfolio or wallet. This concept mainly occurs in conglomerate M&As.

Once M&As provide diversification, one business segment may achieve some results in line with expectations, needs of other segments can be fulfilled by this realized expectations. On the other hand, the bidder might have a perspective to get rid of mature market that operates in to enter into new market that has high growth potential (Elmas, 2007). For instance, telecommunication is a highly mature and stable sector that one firm cannot growth extraordinary so they may acquire a high-tech company to consolidate with their main business or just enter into new sector to rising their dynamism.

1.3.5 Reasons Related with Management's Benefit

Acquisitions are made to have better results regarding operationally and financially. Furhermore, shareholder of the company is essential target that they have to be happy after transactions occur. However, some discussions or studies in developed markets show that there may be conflict of interest between manager and shareholders. This topic is also called principal agent issue in the literature (Jensen & Meckling, 1976). Company managers have serious power to make decision such as building new factory, taking some debt from banks, increasing product prices and making M&A too. These decisions have some results and it directly influence the performance note of the managers. Managers may think to save short-term period by this kind of decisions. Moreover, even if the management consider themselves, M&As may be beneficial for both company and managers too. Three main reasons behind principal agent issue that is explained next sections (Motis, 2007).

1.3.5.1 Empire building

This hypothesis is described by Mueller (1969). According to this theory, essential target of the managers want to achieve higher salaries or bonuses. If a company is enlarged or generating much more cash, their demand can be obtained so that M&A is a simplest or fastest way to aprroach this objective. Some business plans and feasibilities are made to decide value of the target firm. Even if M&A does not match these plans that is indicated before the transactions, managers may reach their target (Harford and Li, 2007).

1.3.5.2 Hubris

The concept is presented by Roll (1986). According to this rationale, there is also a human being factor that managers as a human may act in a wrong way or make incorrect decision by trusting themselves very much. Their decision power and abilities push themselves to make mistakes. Furthermore, because of overconfidence, they may pay payment to the target firm higher than its valuation (Motis, 2007). At the end of the process, stock prices never lie and start to decline based upon the transactions that losses to share price of the company are not being welcomed by shareholders.

1.3.5.3 Risk Spreading or Diversification

Based on portfolio theory, diversification provide spreading some financial and operational risks that last long the lifetime of the firm (Motis, 2007). How much company create right portfolio, it becomes more powerful against challenges that it faces. Therefore, mergers are made to vary revenue or product range of companies. If one business branch of the companies face some troubles, other one may help the firm to survive. On the other hand, managers have decisional power over the portfolio or final decisions about M&As, they may choose to built an optimal portfolio for themselves (Motis, 2007). Thanks to the decision power of the managers, they may give priority their objective instead of the firm has. This does not mean that only manager may gain from merger decisions. Companies might also have some gains from the deal but diversification of personnel portfolio may be their main objective because of the selection power of the portfolio. Motis (2007) indicates that authorities does not make detailed deal spesific analyzes because they focus on other issues such as market competition. Even if they want, it may be costly to make.

1.4 Waves of Mergers and Acquisitions

The footsteps of M&A activities have appeared in 1890s and first transactions demonstrate a clustering feature. Although, the clustering behavior is described that the length and beginning of each are not precise, the waves generally start/end with the war or the beginning of an economic crisis (Sudarsanam, 2003). The clustering pattern of mergers and acquisitions activity shows itself in 6 different waves, but depending on the environment following the global financial crisis that break out from the USA to the whole world, the possible 7th wave of mergers and acquisitions is also discussed (Sudarsanam, 2003; Alexandridis, Mavrovitis, & Travlos, 2011).

While the first and second waves are particularly related to the US market, the geographical distribution of M&A activity started to expand other continents after the first two waves. Thanks to a 5th wave (1993-2000), Continent of Europe and Asia have started to be key or substantial player in company transactions (Sudarsanam, 2003). Mergers or acquisitions are mainly concentrated during the periods of capital markets growth. Moreover, if a company borrow with low interest rates, they may have extra cash to evaluate M&A options (Harford, 1999).

Each wave has different characteristics. 1st wave (1893-1903) is defined by creation of monopoly. While oligopoly is revealed with 2nd wave (1919-1929), 3rd wave (1955-1973) may be defined the term of diversification and rise of conglomerates and the world has faced with hostile deals at the 4th wave (1981-1989) (Mitchell & Mulherin, 1996). Meanwhile 5th wave (1993-2000) is identified with mega deals, 6th wave (2003-2007) is described as globalization (Alexandridis, Mavrovitis, & Travlos, 2011). 7th wave (2010-present) is a recovery period after 2008 Financial Crisis. Next section is going to identify characteristics of each M&A waves. Table 2 shows the number of waves, period and main characteristic of each waves.

Table 2: M&A Waves

M&A Wave	Period	Characteristic
1st wave	1893 - 1903	Arising of monopolies
2nd wave	1919 - 1929	Term of oligopolies
3rd wave	1955 - 1973	Conglomerate (Unrelated) M&As
4th wave	1981 - 1989	Hostile takeover
5th wave	1993 - 2000	Mega Deals
6th wave	2003 - 2007	Globalization
7th wave	2010 - present	Recovery and Optimism

Sources: Sudarsanam, 2003; Alexandridis, Mavrovitis, & Travlos, 2011

1.4.1 First Wave (1893 – 1904)

First footsteps of M&As seem around 1890s, a period of sensational changes in some aspects such as technology, economic growth, industrial processes, improvement of legislation about the merger and the development of modern capital market in the USA. Improvement in the New York Stock Exchange (NYSE) has also stimulated M&A because capital need to acquire or merge has become easily accessible (Martynova & Renneboog, 2008). According to Watkins (1927), enterprises are forced to consolidate because of the slowdown in demand and increased competition; Bain (1944) shows that construction of national railway has accelerated to increase geographical access of the firms.

First wave is mostly faced by transactions that lead to horizontal consolidation. This circumstance results in comprise of huge entities that dominate the majority of market in some industries like steel, rubber, textiles, oil and mining. Sherman Antitrust Act of 1890[1], which restricts cartels and monopolies, was enacted but the direct impact was limited (Stigler, 1950). According to Sudarsanam (2003), more than 1.800 companies have disappeared in the United States and monopolies have emerged in over 70 sectors in this period. First wave has come to an end due to the economic crisis around 1903 that caused financial and social depression.

1.4.2 Second Wave (1919 – 1929)

Following the Great War, there is recovery term to get rid of impact ot the war. This wave last long very short period of time. Second wave is known as an oligopoly term because

[1] Sherman Antitrust Act: restricted the consolidation of entities that could limit illegal competition.

monopolization of companies is diminished after the first wave. In this wave, small companies that "survived" from the first wave make M&A among each other. Consolidation of small companies provide to increase their size and capacity to wage war with monopol of the first wave. They have to do to be survive (Stigler, 1950). Some developments and inventions in transportation and communication industry cause that local or boutique company in one part of the country may have a chance to diffuse across the countrywide (Markham, 1955; Stocking, 1955).

Additionally, legal regulations have increased the tendency to oligopoly. (Kleinert & Klodt, 2002). In addition to the enforcement of previous legislation, new antitrust legislation has been introduced. Thanks to the specific laws made by government, monopols cannot maintain to dominate the marketplace so that form of oligopolies emerges (Hill, Quinn, & Solomon, 2016).

Most of M&A transactions are concentrated in some specific sectors such as paper and iron, but this wave has remarkably less size compared to the first wave because of the reasons are mentioned above. While the first wave leaves an impression much more in comparison to the second wave. It may be related with duration period as well but getting over the impact of the war is main challenge of this wave (Sudarsanam, 2003).

Documenting and analyzing concern over the short-term effects of M&A announcements in the USA has appeared in this period that finding one month before the announcement average cumulative abnormal returns (CARs) of 15.67% for the target firms and 2.43% for the acquiring firms (Leeth & Borg, 2000). The end of the second wave come to an end because of 1929 market crash, which started the Great Depression, which led to a global depression in subsequent years.

1.4.3 Third Wave (1955 – 1973)

The emergence of another wave of mergers and acquisitions longlast almost two decades because of political and economic problems in previous years such as wars and financial crisis. That's why the third wave has not started until 1950s. it continues about two decades. One of the reasons for this wave is a tightening of the Antitrust Law[2] in 1950 in the USA that divert companies another way of searching. Unrelated and diversified M&As are

[2] United States antitrust law in 1950: is a collection of state laws that regulate organization of corporations and are intended to promote competition.

identified with this wave (Martynova & Renneboog, 2008). Sudarsanam (2003) shows that when large companies of the world are examined, 1 out of 5 start to enter business different from their main branch.

The first and second waves are identified with horizontal and vertical integration, respectively. The third wave brings a new concept called diversification, which is investment in a variety of assets to reduce your own risk. (Shleifer & Vishny, 1991). While companies are turned into conglomerates, major purpose is that if their main sector reach maturity or saturation, they may move into relatively new sector that potential growth opportunities. Moreover, firms might come through restrictive laws and challenges in the capital markets (Martynova & Renneboog, 2008). Market shocks in one sector can be offset by gains from another unrelated sector (Chandler, 1991).

On the other hand, entering into unrelated or unexperienced sector result in challenging circumstances for the management. Chandler (1991) indicates that creating one common strategy is really hard to have that companies come from different background. Diversification increase the managerial distance between headquarters and divisional managers. In addition to the potential inefficiencies associated with the increase in communication lines. Company may struggle to follow starting same strategy with their all subsidiaries at the same time. Approaching other parties and overcome some procedures are forcible (Chandler, 1991).

There is some analysis about the UK and the USA deal results. UK acquisitions have significant positive CARs with more than 20% for the targets and negative results for the bidders with -6.3% in the short-term period between 1969 and 1975. The AR is significantly positive by 0.5% 12 months after the deal with and for the 24 and 36 months with -0.4% (Firth, 1980). Furthermore, CAR is found significantly positive for both target as well as the acquirer in the 12-day (-6, +6) window 16.7% and 13.74% respectively in the USA between 1962 and 1980 (Dennis & McConnell, 1986). The third wave comes to an end because of the oil crisis in the world in general.

1.4.4 Fourth Wave (1981 – 1989)

The fourth wave of acquisitions which is called second international wave started in 1980s after the world can handle of oil crisis. In addition, some developments in the world as legally and financially also supports the acceleration of this wave such as leveraged buy-out (LBO) and management buy-out (MBO) and new financial markets like junk bond market.

This wave is known for divestitures of conglomerates and hostile takeovers (Martynova & Renneboog, 2008). Because of the newly emerged LBO concept, this term is decribed by bust-up acquisitions as well. In other words, divestment of the target company is common procedure after the deal is finalized. Furthermore, number of deals increased in this term thanks to decision power of manager and banks that pump money to the market (Schleifer & Vishny, 1990).

Holdings start to make business in other fields in previous wave but they could not manage very well mainly based on lack of experience. In this reason, firms try to form up in a different way so that divestment is made (Schleifer and Vishny, 1990). The 20-40% of the M&A activities are generated by divestitures of conglomerates in this period (Sudarsanam, 2003).

Performance of M&As in this term are investigated by some researchers. Franks, Harris and Titman (1991) elaborate the acquirers that find negative CARs in the United States market. On the other hand, long-term CARs are investigated based on different benchmark models. They find meaningful positive returns. Andrade, Mitchell & Stafford (2001) show that positive returns for the target, negative announcement returns for acquirers in the short term. While Franks, Harris & Titman (1991) find meaningless wealth returns, Loughran & Vijh (1997) discover meaningful CARs of 47.9% in 60 months duration among 947 transactions between 1970s and 1990s.

Waves are generally terminated or started after the particular financial and political events. Again, this wave comes to end because of financial problems in the USA and rest of the world follow them with a domino effect.

1.4.5 Fifth Wave (1993 – 2000)

The fifth wave, the third international wave, began in 1993 with an increasing level of economic globalization, deregulation, privatization, technological development and financial market boom. The global nature of the fifth wave is an impressive first element. In addition, the European deal market obtain almost same size as its peers. Additionally, Asia as a continent enters into the game (Martynova & Renneboog, 2008).

Companies start to adapt the concept of globalization. Moreover, there are almost no differences over making investment or M&As in-home country and abroad (Holmstrom & Kaplan, 2001; Jovanovic & Rousseau, 2001). Thus, domestic firms look for opportunities in

different places (Martynova & Renneboog, 2008). This result in high volume of deals in terms of deal value that seem as an impossible in the history. As there may be given some examples of big deals: Citibank & Travelers, Chrysler & Daimler Benz, Vodafone & Mannesmann and Exxon & Mobil. While the dominance of the USA decrease, Europe and Asia are rising stars. Share of USA has declined from 83% to 43%, Europe and Asia fill the gap by taking 47% and 6% respectively (European Commission, 2001). In comparison to previous wave, number of hostile M&As seem less in the UK and the USA marketplace. Nonetheless, an unprecedented number of hostile M&As are taken place across continental Europe (Martynova & Renneboog, 2008).

Andrade, Mitchell, & Stafford (2001) find that the targets have significant returns around 15.0%. In addition, the bidders have meaningless negative abnormal returns from 1990 to 1998. Martynova & Renneboog (2006) show that positive CARs in a 10-day event window, (-5, +5) with 0.79% for the acquirer and 15.83% for the target in whole M&A transactions. The acquiring firms have meaningful negative CARs by -2.83% when a 120-day event window are observed. This wave come to end again as a result of an economic recession. The millennium age begins following bursting of the internet bubble that shakes whole economy starting from the USA to the world.

1.4.6 Sixth Wave (2003 – 2007)

The wave started around 2000s, when the world as globally began to recover following the slowdown in 2000 because of Dot-com bubble. The first five waves emerged in the USA in a response to some legal and financial changes in the USA and declining costs of internationalization. The sixth wave was identified with globalization and broke out in all parts of the world thanks to inclining intensity of globalization, creation internationally coherent system, high liquidity and cheap money to be provided by banks (Alexandridis et al., 2011). In other words, this wave did not spread from the USA, but it emerged organically in an every region. Furthermore, this high liquidity and low interest has also enhanced private equity backed transactions.

In this wave, some remarkable results are attained that while researcher realize the targets produce wealth return, the bidders generate wealth destruction. Announcement of M&As provide meaningful negative stock return in a sample regarding nearly €500 million deal size from 2003 to 2011 in the Europe (Auguets, Martinez-Blasco, & Garcia-Blandon,

2017). This wave has come to an end because of the sub-prime mortgage crisis in the USA at the end of 2007 transformed to global economic recession.

1.4.7 Seventh Wave (2010 – Present)

The situations experienced in the historical process are generally repeated. The negative atmosphere brought about by the 2008 financial crisis began to disperse and was replaced by an increasingly optimistic atmosphere in the M&A market. Transaction volume has started to recover with an upward path for M&A and during the first half of 2014, the total value of transactions reached $1.75 trillion worldwide. While, Alexandridis, Antypas and Travlos (2017) studied return of the acquiring company that they find significant negative CARs of -1.08% during the deals between 1990 and 2009, CARs are significantly positive with 1.05% between 2010 and 2015. Companies are gradually expected to follow inorganic expansion instead of their organic growth targets (Cordeiro, 2015).

CHAPTER 2

LITERATURE REVIEW

The analysis of the behavior of stock price following mergers and acquisitions, are the subject of various studies in the financial literature regarding trends in M&A transactions, features of deals and whether generating wealth return or not for shareholders. Wealth return may be generated, maintained or destroyed because of M&As. There is an extensive literature that measures the impact of M&A returns on share prices before and after the announcement period in a different period. These studies examine whether M&As provide significant wealth effect or not. There are four main approaches and most of the studies use event studies to understand how stock prices react to the event. In other words, the methodology of the event study dominates the literature to understand the effects M&As. There are some details about event study and other approaches below:

Event Study: Event studies have been a dominant approach since the 1970s and are commonly preferred in the research to understand impact of M&As both in Turkey and rest of the world. It examines the abnormal returns of company shares in the period surrounding the announcement of a transaction.

Accounting Based Measures: This approach based on reviewing the reported financial statements of the companies before and after the acquisitions to see how the financial performance are changed. These studies concern net profit, return on equity, return of assets, earning per share, debt to equity ratio and liquidity ratios of the company.

Survey of Manager: This basic survey methodology makes generalization from some answers. It is direclyt made by management of the firm.

Clinical Research: This is inductive research. These focus on a transaction or small sample, usually derived from field interview previews with competent managers and observers.

In reviewing previous studies, it is important to note that the performance of the target shareholders is substantially higher than that of the acquiring shareholders (Jensen and Ruback, 1983). Andrade (2001) underlines that mainly target shareholders benefits from earnings following the M&As. When previous studies are reviewed, there is no consensus that M&A announcements may generate meaningful positive and negative returns or insignificant results for acquiring companies. Furthermore, sample are much more limited and less conclusive in the emerging market. Although the majority of existing studies focuses on equity returns in short-term period following the deal date, a little part of studies looks at long-term returns after the acquisition. When we look at the literature about impact of M&A on wealth return in related with the bidders, abnormal returns are varied for the short-term period. For instance, some results are significant other is insignificant or some authors find positive, negative returns the other find neutral. In addition, mostly negative or insignificant results are detected that studies investigate long-term period.

Literature mainly focuses on the short-term performance and returns about targets. However, the bidders and long-term studies are also investigated both in development countries and Turkey. In this study, there will be focused on how M&As influence the return of acquirer companies both short-term and long-term period. In next sections, previous studies are elaborated in more details to make better comparison with our results.

2.1 Developed Markets

Short-term impact of M&As over the acquirers are studied by various researchers and there is no consensus. Some studies indicate significant positive (Schaik and Steenbeek, 2004; Ings and Inoue, 2012; Goergen and Renneboog, 2004) or negative returns (Franks, Harris and Titman, 1991; Moeller, Schlingemann and Stulz, 2005), some of them find insignicant numbers

(Dutta and Jog, 2009; Andrade, Mitchell and Stafford, 2001; Holmen and Knopf, 2004; Martins, 2015). When the all literature is analyzed, shares of target companies are influenced positive much more than the acquirers and results of the acquirers seem so mixed in comparison to the targets. More studies are shown in Table 3.

[Appendix: Table 3: Studies about short-term effect of M&As]

On the other hand, according to studies in developed countries like the USA and the UK, long-term impact of M&A on the acquirers result in significant negative BHARs (Gregory, 1997; Loughran & Vijh, 1997; Rau and Vermaelen, 1998; Moeller, Schlingemann and Stulz, 2003). However, only few studies reach that statistically no significant abnormal return is obtained (Franks, Harris, and Titman, 1991; Mitchell & Stafford, 2000; Dutta & Jog, 2009). When the literature is elaborated historically, studies made after 5th wave start to show lower significant negative results or insignificant results. More studies are shown in table 4.

[Appendix: Table 4: Key studies in developed countries are examined by BHAR Approach]

2.1.1 Studies Related to Short-Term Impact

Dutta and Jog (2009) look at 1.300 impacts of Canadian mergers and acquisitions on the acquirers between 1993 and 2002 using event study and calendar time approaches in terms of several groups such as related vs. unrelated and mergers vs. acquisitions. They calculate ARs and CARs following the transaction date. At a significant 1% level, CARs of (-1, +1), (-2, +2) and (0, +2) 1.30%, 1.60% and 1.30% are observed, respectively. Their results indicate that the initial excessive reactions in the Canadian market are followed by negative ARs in the market. They find insignificant CARs with -0.40% within 15 days of an announcement date.

Schaik and Steenbeek (2004) study 136 domestic non-financial mergers in Japan between 1993 and 2003. The bidders report an abnormal positive return of about 1.4% around the announcement date. The highest return is realized in the two days preceding the announcement, but gains are quickly lost afterwards.

Andrade, Mitchell and Stafford (2001) analyze 3.688 samples for the period 1973 to 1998. According to them, the most reliable method of determining whether M&A transaction provide wealth return or not is investigating short-term events windows. The researchers find negative results for the acquirers a day before and after the event: 0.3% (1973-1979), -0.4% (1980-1989), -1.0% (1990-1998) and -0.7% (1973-1998). While the results are negative, they

indicate that this information is not reliable. At the same time, they find significant positive results for the target firms.

Franks, Harris and Titman (1991) elaborate more or less 400 M&As between 1975 and 1984 in the USA by using market model as a benchmark. While they find -1.02% CARs (-5, +5) for acquirers at 10% significant level, target CARs are 3.9% (-5, +5) at %1 significant level.

Ings and Inoue's (2012) analyze Japanese bidders from 2000 to 2010. The results find that local M&As produce less wealth return in contrast to Cross-Border deals. Cross-border deals generate 1.0% CAR, while local transactions can make 0.4% in three days which is before and after a day from the event date.

Nystad and Grinden (2013) investigate the abnormal returns of the bidders on the Norwegian Stock Exchange and ARs are calculated in Euro and Norwegian Krone (NOK). The results show that the acquirers have an average ARs of 2.16% in €, but the calculation of ARs in the NOK shows that the acquirers have statistically insignificant negative ARs.

Moeller, Schlingemann and Stulz (2005) examine 12.023 M&A deals made by publicly traded companies between 1980 and 2001 in the United States. They find ARs during three-day window (-1, +1) using a market model as benchmark and results are 1.1% at 1% significant level.

Martynova and Renneboog (2006) investigate 2.419 deals in 28 European countries in the period between 1993 and 2001. Abnormal returns are calculated based on the difference between realized returns and benchmark returns in the market model using MSCI-Europe index returns. Estimation window is over 240 days starting 300 days prior to the acquisition announcement and ending 60 days prior to the announcement. They find incompatible CARs: 0.39% (-40, +1), 0,72% (-1, +1), 0.79% (-5, +5) and -2.83% (-60, +60). Authors also examine cross border vs. local deals, full vs. partial acquisitions and related vs. unrelated businesses. Firms bidding on cross-border tenders suffer lower reporting effects than firms making national acquisitions by 0.4% versus 0.6%, respectively that are statistically significant. After the day of the event, the negative price correction for bidders is larger for cross-border bids than for domestic bids. On the other hand, acquirer companies have significantly higher short-run returns around the announcement of related deals in comparison to the returns of unrelated businesses by 0.63% vs. 0.36%. While, share prices of related M&A makers increase, share prices of unrelated M&As decrease after the event. They also examine the full acquisition

compared to partial acquisitions. While the announcement effect of partial acquisitions is significantly positive at 0.4%, it is significantly lower than the announcement effect of the total takeover of 0.6%. The share prices of bidding firms over the six-month period, accumulated substantial losses of -5.0% in the event of a partial acquisition. Complete M&A stocks earn significantly different returns of zero.

Holmen and Knopf (2004) study 121 M&As in Sweden in the period between 1985 and 1995 using market model. Researcher find insignificant CARs 0.04% (-1, +1) and 0.32% (-5, +5) for bidders.

Mager and Meyer-Fackler (2017) research long-term performance of 338 German bidder companies from 1981 to 2010. For the entire sample, the CARs are not significantly different from zero. Result are evaluated in five event-window period: -0.09% (0, +20), 0.01% (-1, +1), 0.04% (-5, +5), 0.33% (-10, +10) and 0.1% (-20, +20).

Campa and Hernando (2004) investigate short-term impact of the M&As in the EU. Their sample consist of 288 deals during the period 1998-2000. They find insignificant CARs in four event window period: 0.04% (-1, +5), -0.55% (-1, +28), 0.08% (-7, +7) and 0.27% (-30, +30). Furthermore, authors make comparison among cross border and local transactions. Their results show lower abnormal returns for cross-border mergers and acquisitions across the EU. CARs are found 0.47% vs. -0.9% (-1, +5), -0.09% vs. -1.54% (-1, +28), 0.49% vs. -0.82% (-7, +7) and 1.37% vs. -2.14% (-30, +30) local and cross border respectively.

Martins (2015) examine 114 acquiring companies that have merged or acquired companies from 1997 to 2015 in the Portuguese market in terms of cross-border bids, bidder's attitude, industry relatedness and so on. For the full sample, there is no significant CARs in the five different event windows: 0.4% (0, +1), 0.02% (-1, 0), 0.49% (-1, +1), -0.48% (-5, +1) and -0.2% (-5, +5). In addition, author do not find any significant result for both cross border and domestic deals in same event windows. Moreover, all parametric and non-parametric test are found insignificant for related and unrelated M&As.

Goergen and Renneboog (2004) investigate the short-term wealth effects of large European takeover bids. They note significant 9% announcement effects for target companies and CARs that included price increases over the two-month period preceding the 23% announcement date. Nevertheless, the share price of the bidding companies generates a statistically significant CARs with an only 0.7%. Their findings suggest that acquirers should

not diversify by acquiring target companies that do not fit their core business. In addition, local deals create more CARs than cross-border mergers and acquisitions.

2.1.2 Studies Related to Long-Term Impact

Dutta and Jog (2009) investigate for the long-term period. Unlike studies conduct in the United States, they do not find significant negative BHARs and noted that Canadian acquisitions did not result in value destruction. Furthermore, for the “target type”, the “related/unrelated” targets are not produced significant results. While they find insignificant BHARs between relative target and unrelated target. It is generally argued that related M&As are less likely to be successful because the managers of the acquirers are unfamiliar with the target industry (Agrawal et al., 1992). Moreover, shareholders do not prefer diversification of business activities.

Datta, Iskandar-Datta and Raman (2001) study over long-term impact of the M&As in the USA with 437 samples. According to three-years BHAR calculation, they find -10.67% at %1 significant level.

Mitchell and Stafford (2000) elaborate 2.068 deals in the USA. The three-years buy and hold abnormal returns are insignificantly estimated almost zero by -0.01%. As a reference portfolio, New York Stock Exchange (NYSE) are used.

Mager and Meyer-Fackler (2017) research long-term performance of 338 German bidder companies from 1981 to 2010. Unlike many studies in the USA, they do not reveal significant BHARs (0.9%) for in their entire sample in three-year period. 3-year CDAX adjusted BHAR are calculated -3.5% (1981-1990), -8.1% (1991-2000) and 8.2% (2001-2010). The researchers analyze the impact on three-years performance of the various case-specific features generally discussed in the literature such as cross-border vs. local and related vs. unrelated businesses. Cross-border and unrelated deals generate more value than local and related ones.

Jakobsen and Voetmann (2003) investigate both short and long run security performance of bidding firms listed on the Copenhagen Stock Exchange. It is find that the long-term abnormal return after three years is not significantly different than zero. This means that bidding firms do not perform below market performance. These current results indicate that the assumption of market effectiveness is continuous over the long term. It is only in the very

short term, a few days around the acquisition announcements, that the market makes a meaningful adjustment to maintain the efficiency assumption.

Antoniou and Zhao (2004) research transactions in the UK. There are 112 UK acquiring firms in 1991-1998 sample period. They find no significant abnormal returns (7%) over three years after the take-over.

Moeller, Schlingemann and Stulz (2003) examine 12.023 acquisitions in the USA over 1980 – 2001 via using both BHAR and calendar-time approach. They find -16.02% significant abnormal return over 3-years period by BHAR approach.

Conn, Cosh, Guest and Hughes (2001) examine the impact of cross-border and domestic acquisitions on the long-term returns of British acquiring companies. Using a sample of 3.260 acquisitions of public and private targets made between 1984 and 2000, they find that the return on shares after the transactions is significantly negative in the United Kingdom. Three years BHARs are calculated -5.66%, -8.83% and 0.87% for whole sample, domestic acquisitons and cross border acquisitions respectively. International acquisitions result in neutral post-acquisition equity returns, which are considerably higher than those of national acquisitions.

Loughran & Vijh (1997) investigate long-term share performance of 947 US companies in the period 1970-1989. For the five years period, -15.9% significant abnormal return is obtained.

De Jong (2018) examine the impact of cross-border M&As and find that the various three merger waves (5th wave, 1993-2000), (6th wave, 2003-2007) and (7th wave, 2010-2014) have been affected differently. A total sample of 153.021 M&A deals in 62 countries, most of them from developed countries, for the period 1985-2014. Author indicates 2 event windows for short-term period and an event window for long term period which are (-1, +1), (-5, +5) and 36 months. While short-term returns are calculated by CAR, BHAR approach are used for the long-term period. In the short-term period, insignificant positive CARs are calculated for the full sample -1.0% (-1, +1) and 1.1% (-5, +5). There are no statistically different results between cross-border and local deals. On the other hand, insignificant negative BHARs are found for the three wave periods in the full sample -1.5%, -3.6% and -0.0% respectively. Moreover, difference test between cross border and domestic transactions are found insignificant in the same three periods.

Sudarsanam and Mahate (2003) investigate short and long-term performance in terms of abnormal returns of the companies after the M&As using variety of benchmark models in the UK. Their sample consist of 543 UK acquirers between 1983 and 1995. Three-years BHARs are calculated -6.62% at 10% significance level. According to their study, M&A result in a value destruction for the acquirers at the time of the bid announcement and during the post-acquisition period.

2.2 Emerging Markets

The number of studies in emerging markets are gradually increased following with the fifth wave of the M&A. As studies in the developed countries, there are no certain results about wealth effect of M&As over the acquirers. While, long-term studies mainly show meaningful negative results in developed countries, results are mixed very much in the emerging markets. I summarize some examples from Emerging Markets below.

2.2.1 Studies Related to Short-Term Impact

Aybar and Fıçıcı (2009) examine 433 M&As announcements associated with 58 emerging-market multinationals (EMMs) during the sample period 1991–2004 regarding some particular features. They find that stock markets responded negatively to cross-border M&As. The average AR is 1.38% on the event date, which is meaningful statistically. What is more, CARs around the transaction date indicate that M&As of EMMs are considered as wealth destroyer.

Zaremba and Plotnicki (2015) investigate 109 transactions across Central and Eastern European countries from 2001 to 2014. They find solid evidence that M&As provide wealth return for the bidders in the short-term period. They find significant CARs in 7 different event windows: 1.54% (0, +1), 2.21% (0, +2), 2.18% (0, +3), 1.97% (0, +5), 2.63% (0, +10), 1.86% (0, +15) and 1.37% (0, +20).

Zakaria and Kamaludin (2018) investigate short-term share performance of 72 acquirer companies listed on the Saudi Arabian Stock Exchange from 2000 to 2017. Investors may experience abnormal returns during the short-term before and after the announcement date. They find significant results 13 of 16 event windows.

Bae, Kang and Kim (2002) calculate the abnormal returns for acquirers using a market model on Korean Stock Exchange for the period 1981-1997. The results indicate that all CARs calculated are found meaningful in the investigation period. At a 5% significance level, CARs are computed for (-1, 0), (-5, +5) and (-10, +10) as 1.23%, 2.67% and 3.39% respectively.

Chhetri and Baral (2018) research impact of M&As in Nepal within 15 days after the event. M&A practices had no positive impact on shareholder performance. merger between years between 2010 and 2012 are selected as a sample. Neither before nor after the merger is announced, investors could achieve an abnormal return. In addition, they examine banking sector as a sub-group but overall banking sector shows the same insignificant result.

Shah and Arora (2014) focuse on understanding the impact of the 37 M&A deals made in the Asia-Pacific from March 2013 to September 2013. The cumulative average abnormal returns of the stock prices of the target and the bidder company during different periods of events are analyzed. The study analyses the impact of the share prices involved in the M&As during different periods of events such as (-2, +2), (-5, +5), (-7, +7) and (-10, +10) days. In all investigation windows of the event, the equity price of the target company gives a positive CARs which is noticeably different from zero. In contrast to target companies, the bidders do not display meaningful CARs for each window. Observed insignificant CARs are 1.2% (-2, +2), 1.7% (-5, +5), 2.3% (-7, +7) and 2.5% (-10, +10).

Smit and Ward (2007) research South African acquiring companies for the short-term period. Sample is consisting of 27 deals from 2000 to 2002. Four event windows are observed: 4.35% (-10, +10), 3.79% (-5, +5), 0.98% (-2, +2) and -0.02% (-1, +1). They do not find any significant CARs for any of the event windows.

Mushidzhi and Ward (2004) analyze ARs for 64 M&As in South Africa between 1998 and 2002. Accordingly, Mushidzhi and Ward show that the target companies can provide significant CARs two days prior to the disclosure date. However, acquirers do not reach any significant results in any event windows.

Sehgal, Banerjee and Deisting (2012) evaluate announcement of M&As effect in the BRICKS countries from 2005 to 2009. They find 214 acquiring companies listed on the stock exchange a member of BRIKCS Countries. Cross-border mergers and acquisitions are excluded. Significant pre-event ARs are observed in five of the six countries in the sample. Although these pre-event ARs are significantly positive for India, China, Russia and South Korea, they are heavily negative for South Africa. This may be an indication of potential

information leakage. Following the event, India, China and South Korea have negative returns, while South Africa experience strong positive returns.

Ma, Jianyu, Pagán, José A, Chu, Yun (2009) explore the abnormal returns of bidding companies around the day of the M&A announcement for 10 Asian emerging markets. They elaborate 1.477 M&A transactions and find meaningful positive CARs in the windows of (0, +1), (-1, +1) and (-2, +2).

Rani, Yedav and Jain (2015) analyse 522 acquirer firms from 1 January 2003 to 31 December 2008. They are traded on the Bombay Stock Market (BSE). The market model is taken into consideration when estimating expected returns. While estimation windows are from the day –280 to the day –26, there are lots of event windows: (–20, –2), (–5, 0), (–1, 0), (–1, +1), (–2, +2), (–5, +5), (–10, +10), (–20, +20), (0, +1), (0, +5), and (+2, +20). Shareholders of Indian acquirers achieve very positive returns over the two, three and five-day period around the event date. On the other hand, these positive circumstances do not continue after the transaction date that returns are diminished day by day. While there are positive returns before the event, negative wealth return is detected after the event that destroy all gains.

2.2.2 Studies Related to Long-Term Impact

Zakaria & Kamaludin (2018) assess long-term equity return of 72 acquirer companies publicly listed on the Saudi Arabian Market from 2000 to 2017. In contrast to most of the studies, they find significant BHAR result that M&As create meaningful wealth return 36 months after the transaction date. Authors provide significant (5%) positive BHAR with 32.42% in the 36-month period. Thus, the generation of evidence that the Saudi Arabian Stock Market is an ineffective.

Lee and Isa (2012) elaborate the long-term equity performance of Malaysian bidder' firms from 2000 to 2004 using the BHAR approach. They find meaningful negative ARs for the 36 months time horizon.

Boateng, Du, Bi and Lodorfos (2018) examine impact of cross-border M&As in China on 209 firms over the period of 1998-2012. Three, four and five years BHARs are calculated -6.1%, -6.6% and -8.4% respectively. Authors indicate that the negative returns are not meaningful only in the in the long-term period.

Zaremba, Szyszka, Plotnicki and Grobelny (2018) look at the long-term returns of 800 mergers and acquisitions in 23 countries. Zaremba et al. (2018) argue that existing research on

mergers and acquisitions focuses on developed countries and ignores other market actors. Their study examines 23 countries from four different continents between 1997 and 2016. Contrary to the findings of long-term poor performance in the developed countries and other developing countries, Zaremba et al. (2018) find no meaningful results indicating a weak performance of the acquirers.

Zakaria and Hashim (2017) investigate 160 deals in Saudi Arabia from 2000 to 2011. They calculate BHARs using reference portfolio approach. 3 years BHARs are found 49.02% at 1% significance level, which is highly different results compared to developed market results.

Hussain, Khoso and Qureshi (2020) study the effect of M&As on the shareholders' wealth in Pakistan from 2012 to 2017 in the banking sector. Five transactions are evaluated. BHARs are calculated for a year after the event. Results of five deals are calculated 12%, -24%, 10%, 3% and -6% respectively. The results are meaningful at 5% significance level.

Kumar and Kuncoliencar (2019) investigate the impact of mergers and acquisitions on shareholder wealth creation using buy and hold abnormal returns in the Indian banking sector. 21 M&A announcements are studied. BHARs for one, two- and three-years period are calculated 0.38%, 0.23% and 0.19% respectively. The BHARs for all the three years are meaningful at 10% level of significance.

2.3 Turkey

The number of studies on M&As in Turkey are few in contrast to developed countries. While number of deals and deal values have particularly increased since 2005. However, capital flows are still limited, which explains the small number of mergers and acquisitions. Capital markets of the countries are not fully developed, resistance to institutionalization of family firms, and unstable political and economic macro-indicators result in limitation for M&As. The analyses on M&As of companies for Turkey aim primarily to explain the short-term price performance of the companies and target side are examined much more than the acquirers. Furthermore, studies in related to long-term wealth impact of M&As are scarce, but the literature is still developing. I summarize some examples from Turkey below.

2.3.1 Studies Related to Short-Term Impact

Öztunalı (2008) study the impact of the M&As which are announced between 2000 and 2007 in Turkey. An examination of 116 transactions are conducted. A separate investigation is made into the the bidder (43) and the target companies (73). 24 different event windows are selected before and after 40 days from the event. None of the CARs are found significant for the bidders. Researcher also examine two sub-groups: domestic deals vs. cross border deals and related vs. unrelated deals. Meaningless results are obtained for the both sub-group for the acquirer companies again.

Genç and Coşkun (2013) examine the impact of transactions on stock prices using event studies. They test the abnormal returns of the stock prices of bidder and target companies for multiple event windows. The research covers a total of 214 M&As, 138 acquirers and 76 target companies, excluding the financial sector from 2001 to 2011. The authors calculate the cumulative abnormal returns by specifying 23 different event windows within 40 before and after the event. Lasty, t-test are executed whether the CARs are statistically meaningful or not. The authors conduct a study examining the impact of M&As on the stock performance of buyers and targets around the initial announcement and deal completion dates. Study shows that the results obtain for the bidder companies are not as high as the target companies. The shareholders of the buying company obtain abnormal returns, especially just before the announcement of negotiations. The positive ARs that acquirers obtain are not meaningful in general.

Uludağ ve Gülbudak (2011) examine how the stock prices of companies excluding financial sectors reacted after the M&A of the period 2005-2011, which are traded on the Istanbul Stock Exchange. Event study method has been used. While using this method, (-5, +5) and (-15 +15) event windows are determined. As a result, it is observed that companies subject to M&As obtained CARs different from zero in the event windows. In general, the CARs reach its maximum at the time of the event or one day later. Subsequent to this, a decline in CARs are observed. However, CARs after the event are higher than before the event. Furthermore, CAR increases immediately prior to the announcement date are interpreted by insider trading.

Reis (2015) examine the stock market reaction of 110 acquiring companies on the Turkish Stock Market from 1994 to 2013 in terms of cross border vs. domestic, related vs. unrelated and so on. Event study methodology is used to evaluate ARs of acquiring companies. In contrast to the results obtained on developed countries, the Turkish bidders achieve a significant positive CAR of 2.27% over the event window of (-5, +5). According to the author,

merger as a deal type bring much more wealth return in comparison to acquistions. Furthermore, related business deals also generate higher wealth in contrast to unrelated or diversified one. Other two sub-group are also analysed. These are country and public/private status of target that there is found meaningless results too.

Yılmaz (2010) study the impact of merger and acquisition deals for both bidders and target share prices. They investigate 19 bidders and 32 target companies between 2002 and 2008. The findings are shown over 3 investigation terms. While, for the one-month period prior to disclosure ARs is 2.56%, ARs is 0.94% after one month from the event. ARs increase in comparison to pre-event term; the three-month and six-month ARs are 0.96% and 6.45% respectively. Nevertheless, the findings are not statistically significant for the acquirers.

Akben-Selcuk and Altiok-Yilmaz (2011) examine the impact of mergers and acquisitions. The authors focus on the bidders in Turkey. Their samples include 62 companies between 2003 and 2007. Results on 10-day and 7-day event windows indicate that bidders are negatively impacted by M&A deals.

Taşcı (2008) also examine the M&As of banks trading on the Istanbul Stock Exchange (ISE) in the period of 2004-2008. According to the results, no significant ARs are found. What's more, significant negative ARs are calculated during the post-event period. Moreover, an excessive reaction to the announcement of M&A is mentioned, unlike the semi-strong form of efficiency at ISE.

Oelger and Schiereck (2011) investigate the effect of cross-border deals on Turkish shareholders. Based on the event study results of 112 transactions between 1992 and 2010, CARs on the event window (-10, +10) are significant.

Another study examining the impact of mergers in Turkey is conducted by İçke (2007). In the study, the transactions carried out by companies operating in the financial sector and trading on the ISE between January 1998 and December 2005 are evaluated. In this context, a total of 24 companies are analyzed, 17 of which are targets and seven buyers. In the study, the effect of M&As on share prices are elaborated by the event study method. (-40, +40) days are taken as the event window. As a result, it is found that the shareholders of the target company obtain positive and statistically significant returns within the evaluated period. On the other hand, the acquirer company shareholders obtain statistically meaningless results.

In the study carried out by Mandacı (2004), the companies that are traded in the ISE in the 1998-2003 period and M&As are examined. It is tested whether abnormal returns are

obtained in 10 days before and after the announcement of the transactions. As a result of the study, it is determined that positive abnormal returns that occur especially in the two days before the event announcement and one day after the event have statistical significance. In the tests of CARs, statistically significant results are obtained in the days close the announcement date. This situation implies M&As are valuable in total. In addition, in the study, the shareholders obtain ARs in the periods before the announcement reveal that there are insiders in the market and they obtain abnormal returns by using the information they reach.

In the study of Yörük and Ban (2006), eight mergers and acquisitions carry out in the food industry in Turkey between 1997 and 2004 are evaluated in terms of stock prices. The examination covers the period of (-6, +6) days. In the study, it is concluded that the shareholders of the company, which is a party to the transaction, did not earn excessive returns in the period examined. However, it is revealed that in the (-5, +5) day period, a value is created.

In the study conducted by Çukur and Eryigit (2006), in which five mergers in the banking sector in Turkey between 2004 and 2005 are elaborated, the effects of the transactions are analyzed. The event window in the study is determined as (-10, +10). It is determined that M&As provides significant and positive abnormal return. In addition, in the study, the price movements after the share transfer are also monitored and it is found that positive excess return is obtained, although not as strong as the date and after the announcement date.

2.3.2 Studies Related to Long-Term Impact

Çıtak and Yıldız (2007) examine the effect of M&As on Turkish acquirer companies listed on the ISE from 1997 to 2005. Their sample is consisting of 40 companies. BHARs are calculated for the as of 1 month, 3 months, 6 months, 1 year and 2 years. T-test results show that there are no statistically significant BHARs except a month period.

Bendaş (2015) analyze the effect of M&As on the bidder firms with an event study methodology using 2-day, 5-day and 1-year event windows, unlike many other empirical studies, the mergers and acquisitions create wealth return for the acquirer companies in the long-term period. However, the author notes that this effect is not observed in the short-term period. The study is carried out on 22 companies that were traded in BIST and engaged in mergers and acquisitions in 2013.

Dinçerkök and Pirgaip (2019) analyze the short and long-term impacts of merger and acquisition announcements on acquirer firm shares prices. Calendar-time portfolio approach is

used for the long-term analyzes. Transactions do not provide statistically significant returns for longer period. In the study, 247 merger and acquisition announcements, at least one of which is a company traded on BIST, in the period of 2005-2018, are examined. Moreover, 117 acquirer companies are evaluated separately.

CHAPTER 3

METHODOLOGY & SAMPLE

The literature suggests four different approaches to evaluate the value generation of M&As. These are event study, accounting based method, survey of manager and clinical research. In this study, as has been used in numerous previous academic studies (Dutta and Jog, 2009; Martynova and Renneboog, 2006), event study method is used. I follow to steps below in the event study methodology;

i. I decide the estimation period and event windows and other sub-event windows. Estimation period is between 300 days before the event and 60 day before the event. While some researchers select the completion day as an event day in their research, I prefer to select the announcement day as an event day for M&A transactions. 8 event windows are selected. While 7 out of 8 are for the short-term investigation: (-10, 0), (-5, 0), (-5, +5), (-2, +2), (-1, +1), (0, +5) and (0, +10) one of them which 36 months is selected for long-term research.

ii. I identify the method of data selection for companies, such as data availability and transaction characteristics.

iii. I calculate normal and actual returns to identify ARs and CARs for the companies.

iv. Then, I compute average abnormal returns and cumulative of these average ARs.

v. Finally, I do parametric (t-test) and non-parametric (Wilcoxon Signed-Rank Test and The Mann-Whitney Test) statistical significance test such as t-test to evaluate the results' reliability.

In this study, wealth effect of M&As are evaluated with two different event study methods: CAR and BHAR. More details are given about CAR and BHAR in the next two sections.

3.1 Cumulative Abnormal Return Calculation (CAR)

After the event windows and estimation period are selected, the next step is to calculate the actual returns of all shares independently. The daily return of equity prices is calculated via formula below:

$$R_{i,t} = \left[\frac{P_{(i,t+1)} - P_{(i,t)}}{P_{(i,t)}} \right]$$

$R_{i,t}$: is the daily return of company i at time t

$P_{i,t}$: is the equity price of firms i at time t

P_i, t+1: is the equity price of company i at time t+1

The next stage is the calculation of expected returns. Cable and Holland (1999) describes four models when computing expected return. These are capital asset pricing model (CAPM), market model (MM), main adjusted returns model (MAR) and the market adjusted returns (Cable and Holland, 1999). I select MM model because it is easily understood and adapted. In addition, the most commonly used model in the literature is also MM.

Based on the market model,

$$E\left(R_{i,t}\right) = \alpha_i + \beta_i * R_{m,t}$$

suppose that:

$E_{(Ri,\ t)}$ - expected return of the share of the bidders i on day t;

$R_{m,t}$ - return of a market index on day t;

α_i - a measure of the average return on the acquirer's shares that is not explained by the market.

β_i - a measure of the sensitivity of the shares of the bidder firm i to market instability.

In the market model, A linear relation exists between performance of the equity and market (MacKinlay, 1997). According to Fama (1998), the market model is suitable for estimating the impact of company-specific events, as the estimation of abnormal returns does not restrict the cross-section of expected returns. Without a merger and acquisition announcement, the difference between actual and projected day t performance would be zero. However, those yields may vary. The formula of AR of the share i on day t is shown below:

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

$R_{i,t}$ - actual return of the share of acquiring firm i on day t.

CAR of the acquirer company i for a given event window is the sum of the AR from day t=1 to the last day of the window.

$$CAR_i = \sum_{t=1}^{T} AR_{i,t}$$

Since we present the AR of all acquiring companies, and using N as the number of them, the CAAR for acquiring companies is calculated as follows:

$$CAAR = \frac{\sum_{i=1}^{N} CAR_i}{N}$$

The next stage consists in measuring the significance of the abnormal returns obtained. The goal is to verify whether the announcement of the merger and acquisition affects the price of the share or not. Given a parametric test, rejecting the null hypothesis (H_0: CAAR = 0) helps to verify that the event has an impact wealth return. H_0 hypothesis assumes that M&As announcement does not affect share price of the company. On the other hand, H_1 hypothesis supposes that announcing M&As influence equity price are computed. Hypothesis are basically:

H_0: CAR = 0

H_1: CAR $\neq$ 0

Two non-parametric tests are computed in addition to parametric test which are Wilcoxon signed-rank test and The Mann-Whitney test. In fact, abnormal returns may reasonably be expected to fail to confirm the defined parameters. Non-parametric tests are less demanding in terms of sample behaviour, but they are not affected by outliers and thus produce strong results.

Event Day, Estimation Period and Event Window

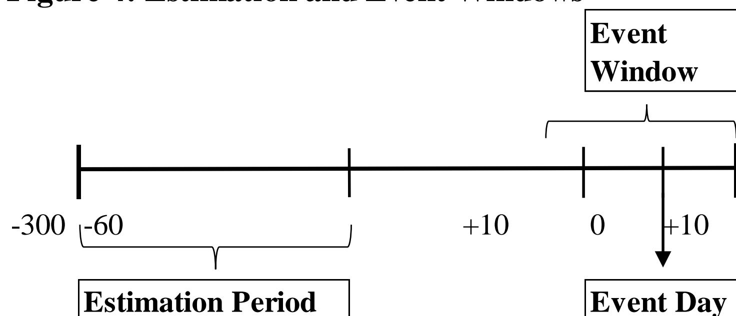
The date of the event should be specified accurately to have right results. Brown and Warner (1985) indicate that if wrong event date is used in the study, wrong or weak results may be obtained that it is directly result in incorrect analysis of the sample.

Selecting the event window and estimation period are one of the most important components of an event study methodology. The estimation period and event windows need to be basically described. The estimation period should be obviously separated from the impacts of possible event. However, the length of the estimation and event window and varies greatly from one literature to another without explanation or specific justification. For instance, Konigs

& Schiereck (2006) use the event study and chose a 250-day estimate period before the event window. Furthermore, Manlio (2014) conducted a similar study and used a different estimate window 200 days before the event window. While, Martynova & Renneboog (2011) uses 240 days (-270, -31), Reis (2015) uses 240 days (-300, -60) in a different way. Either way, the researchers do not justify their choice. In this study, the 240-day is selected for estimated period, but to avoid any type of speculation, the estimation period is between days -300 and day -60 if event date is accepted day 0.

Furthermore, the duration of the event window is expected to be short as an actual market hypothesis. Event windows should cover the initial impacts (before and after) of the event. For this reason, from 2 days to 11 days event window is used by. In this study, event date (date of announcement) is accepted as a day 0 and the event windows are structured around the event. Based on other studies I analyzed the data using 7 event windows from minimum of 2 days (-1, +1) to maximum of 11 days (-5, +5 or -10 0 or 0, +10).

Figure 4: Estimation and Event Windows



3.2 Buy and Hold Abnormal Return Calculation (BHAR)

Two main approaches are essentially used for the investigation about longer periods after the deal finalized. First one is buy-and-hold abnormal return (BHAR) approach. Second one is calendar-time portfolio approach and also called as Jensen’s alpha approach.

Three different methods may be used to assess the BHARs. First one is return on a reference portfolio. In this model, an equally weighted market portfolio is used as a benchmark. Second one is control firm approach that is matched to sample firmsbased upon company-specific features. The third one is known three-factor model of Fama and French.

When studies in the literature are elaborated, there is no dominant approach that while some researcher use CAR others prefer BHAR. However, several researchers have strongly

suggested and used the BHAR method (Barber & Lyon, 1997; Dutta & Jog, 2009). While, CAR is used for short run investigation period, BHAR is preferred for longer periods. In this study, to understand the wealth effect of M&As over the acquirer, BHAR is used on the basis of the reference portfolio that is Borsa Istanbul.

The three-year holding return period is estimated by calculating the compounded month BHAR for the company, for time t as follows:

$$BHAR_{i,t} = \left[\prod_{t=1}^{T}(1 + r_{i,t})\right] - 1$$

Where, $r_{i,t}$ is the actual monthly return on the share of i in event period of t. T represents the number of months in the event period t..

$$BHAR_{m,t} = [\prod_{t=1}^{T}(1 + r_{m,t})] - 1$$

$r_{m,t}$ is the monthly index level of Borsa Istanbul in event period t.

The buy and hold abnormal return of the firm within the sample in event period t are calculated like formula below:

$$BHAR_{i,t} = \left[\prod_{t=1}^{T}(1 + r_{i,t}) - 1\right] - \left[\prod_{t=1}^{T}(1 + r_{m,t}) - 1\right]$$

To understand that whether null hypothesis is accepted or not, parameteric t-test is performed. Essential formula is shown below:

$$t_{BHAR} = \frac{\overline{BHAR_{\iota,t}}}{\sigma_{BHAR_{i,t}}/\sqrt{n}}$$

Where $\overline{BHAR_{\iota,t}}$ is the sample average and σ ($BHAR_{i,t}$) is the cross-sectional sample standard deviations of abnormal returns for the sample of 'N' firms. In addition to parametric t-test, non-parametric tests which are Wilcoxon signed-rank test and Mann-Whitney tests are used to measure the differences of medians. Finally, I choose to examine the performance of the shares for the 36 months period after transaction occurs, as in the case of several prior studies.

3.3 Sample

I focus on the 123 M&As that were made between 2000 and 2017 in Turkey. While, deal related datas are collected from the Bloomberg Terminal, stock prices information is obtained from Thompson Reuter Securities Data Corporation (SDC). The following filters are used in determining the sample of the data:

i. Transactions are listed as completed or finalized with a date of announcement within the investigation period;

ii. The acquiring companies are traded on the Borsa Istanbul (Istanbul Stock Exchange) when the transactions are made public.

iii. The announcement date of M&As are from beginning of 2000 to end of 2017.

iv. Type of transactions are described in Bloomberg Terminal database as a "merger", "acquisition of majority interest", "acquisition of assets" and "acquisition of partial interest".

v. The maximum ownership level is decided 20% over the target firm prior to M&A. This ratio is indicated as a 50% following completed transactions.

vi. If acquirer companies subject to another M&A transaction within 300 days before and 3 years after from announcement date the only previous transaction is included.

In this research, 1.216 transactions are found as a finalized in the period from 2000 to 2017. After the transactions of non-public acquirer companies are removed, 218 transactions remained. In addition, 62 transactions are deleted because the acquirer is the object of another merger and acquisition transaction within the 300 days preceding and 3 years following the date of publication. 33 of these deals are eliminated from the sample because of the lack of market datas about firms. As a result, a total of 123 companies meet these criteria.

3.4 Sample Description

Details of all transactions are extracted from the Bloomberg Terminal database. In Panel A of Table 5 provides the sample characteristics by number and percentage. The sample consists of 123 completed M&A transactions which were made between 2000 and 2017 in Turkey. The sample consist of 31 (25%) Merger, 62 (50%) acquisition of majority assets, 24 (20%) acquisition of assets and 6 (5%) acquisition of partial interests.

[Appendix Table 5: Descriptive Statistics Panel A: Form of Acquisitions]

While, there are 116 (94%) non-banking sector companies deals, 7 (6%) transactions of banking sector companies in the sample is shown in Panel B of Table 5. Only banks are accepted in the banking sector category. Deals of investment and assurance companies are not included.

[Appendix Table 5: Descriptive Statistics Panel B: Non-Banking Sector vs. Banking Sector]

According to Bloomberg Terminal database; where company generates more than 50% of its revenue, it is sector of that company. If two parties are from same sector, this is defined related or non-conglomerate M&A deals such as bank vs. bank otherwise it is accepted unrelated, conglomerate or diversified transactions in this study. 85 out of 123 (69%) transactions are classified in the related business and remaining 38 (31%) M&As are categorized among unrelated business that is shown in Panel C of Table 5.

[Appendix Table 5: Descriptive Statistics Panel C: Related Business vs. Unrelated Business]

When a firm acquire or merge with company from Turkey, it is defined as local deal. On the other hand, If the headquarter of acquirer company is from Turkey and target company is not, this is described as a cross-border transaction in this study. All of these informations are also gathered from Bloomberg Terminal.

The sample includes 107 (87%) local deals and 16 (%13) cross-border deals is shown in Panel D of Table 5. In the Cross-Border deals, there are 7 (44%) acquisition of majority assets, 6 (38%) mergers, 2 (13%) acquisition of assets and 1 (6%) acquisition of partial interests.

[Appendix Table 5: Descriptive Statistics Local Deals vs. Cross Border Deals]

Region of the target firms is shown in Panel E of Table 5; 12 (75%) targets from Europe, 2 (13%) from Asia, 1 (6%) from America and 1 (6%) from Africa region.

[Appendix Table 5: Descriptive Statistics Panel E: Cross Border Deals – Target Region]

In Panel F of Table 5, 12 different countries of target firms are shown.

[Appendix Table 5: Descriptive Statistics Panel F: Cross Border Deals – Target Country]

Panel F of Table 5 shows the sectoral distribution of the acquirers. The majority of acquisitions are made by the construction sector with 10 out of 123 (8%). It is followed by textiles 9 (7%), food and beverage 9 (7%) and power sector 8 (7%).

[Appendix Table 5: Descriptive Statistics Panel Panel G: Acquirer Sector Breakdown]

Panel H of Table 5 presents the distribution of target companies by sector. The primary target area is power at 10 out of 123 (8%). It is followed by textiles 9 (7%), transportation 8 (7%) and construction sector 7 (7%).

[Appendix Table 5: Descriptive Statistics Panel H: Target Sector Breakdown]

Panel I of Table 5 presents a breakdown of M&A transactions per year. The volume of M&As are gradually increased since 2005 as a result of the start of the EU-Turkey relations process, economic and technological developments in Turkey.

[Appendix Table 5: Descriptive Statistics Panel I: Breakdown of M&As by Years]

CHAPTER 4

EMPIRICAL RESULTS

In this section, results are analyzed in terms of Turkish acquirer companies. While, 7 different event windows to understand short-run effect of M&As, one investigation term which 36 months are selected for the long-term period. Whether these are significant or not are verified through statistical analysis. Parametric (t-test) and non-parametric (Wilcoxon Signed Rank Test and Mann-Whitney Test results are calculated. Whole sample is winsorized[3] (5%) to make sure that results are not driven by outliers. Besides, examination of full sample, three distinctive characteristics of M&A are investigated: business relatedness (non-conglomerate vs. conglomerate), country of target company (cross border deals vs. local deals) and deals before 2006 vs. after 2006.

[3] Winsorising data means that replacing the extreme values with certain percentage both from bottom and top of the data set to limit the effect of outliers or abnormal extreme values.

4.1 Full Sample

Panel A of Table 6 provides results of CARs and BHARs for the all sample of 123 observations.

[Appendix: Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs): Panel A: Full Sample]

All mean CAR results are positive and values are between 0.08% and 0.32%. However, all means are statistically meaningless for all investigation periods based on t-test. On the other hand, median of CAR are between -0.07% and 0.07%. Wilcoxon Signed Rank Test are made whether results are significant or not. There are significant results three of seven event windows: (-10, -0) at 10% significance level and (0, +5), (0, +10) at 5% significant level. Other median CAR values are meaningless for other four windows. Furthermore, I compare my results with international and local studies in the literature. My results are consistent with Smit and Ward (2007), Holmen and Knopf (2004), Mager and Meyer-Fackler (2017), Martynova and Renneboog (2006), Martins (2015), De Jong (2018), Shah and Arora (2014), Smit and Ward (2007), Holmen and Knopf (2004), Mager and Meyer-Fackler (2017), Martynova and Renneboog (2006), Campa and Hernando (2004), Martins (2015), De Jong (2018), Shah and Arora (2014), Smit and Ward (2007) and Öztunalı (2008).

On the other hand, 3 years BHAR has the highest mean CAR which is 1.28% when it is compared with short-term observation periods. However, it is statistically insignificant according to t-test. Furthermore, median of 3-years BHAR is around -5.05% and it is significant as a Wilcoxon signed-rank test results at 10% significant level. My 3-years BHAR results are coherent with the the earlier studies from developed and emerging countries including; Dutta and Jog (2009), Mitchell and Stafford (2000), Mager and Meyer-Fackler (2017), Jakobsen and Voetmann (2003), De Jong (2018) and Zaremba et al. (2018).

At this stage, the findings are inconclusive both for short and long-term period. Empirical results of this study indicate that even if significant wealth returns are obtained in some investigation terms, most of the results are statistically insignificant. The fact that there are no strong evidences to say that M&As generate significant wealth returns for the acquirers following M&As.

4.2 Related vs. Unrelated Businesses

In the M&As, the business relationship between the two companies may be a determining factor in creating value for the acquirers. Related or non-conglomerate M&As are made between companies that operates in same or related industry. On the other hand, unrelated, diversified or conglomerate M&As are done by firms have an operation in unrelated industries. For example, if a software company acquire construction firm, it is defined as unrelated M&As. Non-conglomerate mergers are expected to provide some synergies such as rising number of customers, reducing operational expenditures and having decision of pricing power. On the other side, unrelated M&As have also some pros and cons. While, cross-selling of products, declining business specific risk are accepted as an advantageous, conflict on corporate cultures, less sector or business specific knowledge about other company and loss of focus in the main sector of the firm may be considered as a potential disadvantageous.

There is no consensus whether which type of M&A provide better wealth return. For example, while Leeth and Borg (2000) indicate that diversified M&As result in negative wealth impact in the United States, Doukas and Travlos (1988) find a positive wealth return if the bidder acquires the target from unrelated industry so that becoming multinational. Furthermore, Martynova et al. (2011) also investigate conglomerate M&As and find both positive and negative determination. While, unrelated M&As provide advantage on the capital market, some additional cost that emerge after the merger such as agency costs reduce the expected returns. On the other hand, Martynova and Renneboog (2006) show that while the bidders have a better wealth return if it is related deals in compare to the unrelated businesses.

Panel B of Table 6 presents comparison of wealth return between related and unrelated transactions. 85 of 123 deals are related businesses deals, 38 M&As are classified as an unrelated industry transaction.

[Appendix: Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs): Panel B: Difference Test- Related vs. Unrelated M&As]

CAR and BHAR results of M&As in terms of non-conglomerate and conglomerate businesses transactions are evaluated in different time period. While mean CAR results range from 0.12% to 0.44%, mean of 3-years BHAR is 2.41% for related industries. On the other hand, mean CAR are between -0.01% and 0.20% and mean of 3-years BHAR is -1.24% for unrelated businesses.

While, median CAR results range from -0.08% and 0.24% for related businesses, median of 3-years BHAR is also negative by -4.54%. Furthermore, all median CAR results are found negative for unrelated businesses range from -0.26% to -0.02%. Not only for CAR results but also median of 3-years BHAR result are calculated negative by -11.63%.

All results are statistically insignificant for different investigation period depends on t-test and Mann-Whitney Test. Therefore, it seems that M&As neither generate statistically significant gains nor destroy value for the acquirers in this study. My results are consistent with Öztunalı (2008) and Martins (2015) for the short term and Dutta and Jog (2009) for the long term period.

4.3 Target Country: Cross Border vs. Local

Due to globalization, importance of borders gradually declines. Entities may easily reach another entity and customer too both physically and virtually. Thanks to globalization of economies, companies start to operate another country except from their headquarters are. This circumstance also influences volume of M&As that companies from different countries make some deals each other. In recent years, share of cross border (CB) transactions exceed local ones. Previous researcher is examined the effect of CB deals over shareholders' wealth, but the results are mixed (Danbolt and. al 2012). Panel C of Table 6 presents comparison these 2 types of M&As.

[Appendix: Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs): Panel C: Difference Test- Cross Border and Local M&As]

CAR and BHAR results of M&As in terms of cross-border and local M&As are evaluated in variety of time periods. While 16 of 123 cross border deals are made, 107 transactions are made in Turkey. Whereas mean CARs results are range from -0.43% to 0.43%, mean of 3-years BHAR is 1.02% for cross-border deals. On the other hand, mean CARs are between -0.07% and 0.10% and mean of 3-years BHAR is 1.32% for local transactions.

While, median CAR results are among -0.18% and 0.08% for cross-border transactions, median of 3-years BHAR is also negative by -5.59%. Median CAR results are found between -0.07% and 0.10% for local deals. Furthermore, 3-years median BHAR result is found negative by -5.05%.

According to all t-test and Mann-Whitney Test results, there is no statistically significant wealth returns in the analysis period except (0, +5) event window. (0, +5) event window result is generated significant via t-test. Empirical evidence shows that most of the results are meaningless. These results are similar with some studies that are examined in Turkey and other countries such as Campa and Hernando (2004), Martins (2015) and Goergen and Renneboog (2004), Öztunalı (2008) and Reis (2015) in the short-term period. What's more, 3 years BHAR results are similar with De Jong (2018), Martynova et al. (2011) and Doukas and Travlos (1988) as well.

4.4 Before 2006 vs. After 2006 M&As

M&A activities have dramatically started to incline after 2005, thanks to starting Turkey's European Union participation process, stabilized macroeconomic conditions, incoming large number of foreign capitals and so on. Deal value and deal numbers are also support this argument. While, deal numbers are around 85 in 2005, it has been reached almost 140 in 2006 (IMAA, 2018). Additionally, total deal values were under $10 billion before 2005 (Akdoğu, 2011). According to Deloitte Turkey M&A reports, these values reached $19 billion in 2007 and exceed $20 billion in 2012. Because of these turning points in 2005, I try to investigate and compare the effect of M&As before and after 2006.

Panel D of Table 6 presents comparison of M&As before and after 2006. Whereas 12 of 123 deals are made before 2006, 111 transactions are made after 2006.

[Appendix: Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs): Panel D: Difference Test- M&As before 2006 vs. M&As after 2006]

CAR and BHAR results of M&As before and after 2006 are evaluated. While mean CAR results are range from -0.11% to 0.22%, mean of 3-years BHAR is -1.24% for before 2006 transactions. On the other side, mean CAR are between 0.08% and 0.33% and mean of 3-years BHAR is 1.56% for after 2006 deals.

While, median CAR results are among -0.21% and 0.09% for before 2006 M&As, median of 3-years BHAR is also negative by -12.58%. Moreover, median CAR results are found for after 2006 range from -0.09% to 0.18%. Not only for CAR results but also mean of 3-years BHAR result are calculated negative by -4.54%.

All returns are statistically insignificant for all analysis period according to both t-test and Mann-Whitney Test. Thus, it appears that M&A neither generate statistically significant gains nor destroy the value to acquirers in this study.

CHAPTER 5

CONCLUSION

Technological developments and declining profit margins due to increased competition in global markets have forced companies to find a different way to grow. In addition, companies have some motives to make M&A such as creating financial and operational synergies, desiring to obtain better know-how, diversification, tax advantage, lower cost of borrowing and so on. Both parties subject to the transaction aim to gains in a different way but studies in the literature reveal that some M&As provide more wealth for the bidder and some for the target company. Mergers and acquisitions are one of the most important strategic moves for the entities and analysis of the effects of these transactions provides useful information for both company managers and investors. The wealth effects of the M&A are generally evaluated depending upon the financial reports and stock prices.

While this is a relatively new concept in Turkey, it has a long history in the world context, particularly in the United States. The cyclical movements of mergers in the history of the United States are referred to as “waves of mergers”. Six waves of merger are observed so far and it is believed that we are in the seventh wave at the moment.

In this study, the short- and long-term impact of mergers and acquisitions are examined, occurred between 2000 and 2017 in Turkey, on stock prices of acquirer companies using the event study methodology. The methodology of the event study is carried out in the context of the research. A sample of 123 observations is selected based on a screening criterion. Estimation periods (300 days before the date of the event and at least 60 days) are indicated. Although 7 windows of events are selected for the short-term period, one survey period is selected for the long-term period. Daily abnormal returns, expected returns are computed by market model and CAR and BHAR are evaluated via parametric t-tests, and non-parametric Wilcoxon Signed Rank Test and Mann Whitney Tests as well.

The results of these studies are inconclusive in the global literature; some obtains significance return, some cannot, some achieve positive abnormal returns, others are negative.

The results of my research show no significance in the whole sample either in the short or long term. In Addition, three sub-groups are investigated to better understand the impact of M&A: form of transaction business relatedness (related vs. unrelated), country of target company (cross border vs. local) and M&As before and after 2006. At this point, my findings are consistent with some researchers like Holmen and Knopf (2004), Mager and Meyer-Fackler (2017), Martynova and Renneboog (2006) and Jakobsen and Voetmann (2003) for the short run and Martynova et al. (2011), Doukas and Travlos (1988), Dutta and Jog (2009) and Mitchell and Stafford (2000) for the long-term period.

When we look at the whole sample, based on non-parametric test of Wilcoxon Signed Rank, the medians are statistically insignificant for all event windows without (-10, -0) at 10% significance level; (0, +5) and (0, +10) at 5% significant level. For the difference test between cross border and local deals, only (0, +5) event window result are provided significant via t-test. Any significant result cannot be found for difference test over related/unrelated businesses and M&As before and after 2006. Overall, given insignificant results of this study, null hypothesis can not be rejected. There is an insufficient evidence to conclude that the M&As create or destruct value. In other words, we may say that M&A do not create wealth return for the acquirers in Turkey. Even if my results are consistent with some international and local ones, some results in the literature are different from my studies because there is no consensus and exact output in the literature. The results of this study are expected to make contribution to the literature by analyzing a more recent period. Furthermore, study provides a comparison baseline on wealth effects of M&As between short- and long-term periods in Turkey.

M&A may be accepted as a relatively new concept for Turkey in contrast to developed companies when making comparison historically. Non-institutional and non-globalized companies in the sectors, highly volatile macroeconomic and political agendas in the country may prevent the proliferation of M&As until 2000s in Turkey. Even if number of deals have started to increase in 2000s, that momentum seems lost especially after 2015. In these reasons, studies analyzing the wealth effect of M&As in Turkey are limited in number and this is one of the important limitations for this study. After all filtration, the sample becomes so small in comparison to studies made in developed countries.

5.1 Further Research

Further research may focus at least two significant directions in addition to this paper. First, the magnitude of sample may be enhanced. In this study, I elaborate the period between 2000 and 2017. Even if recent years are investigated, I realize that some data are not obtained in the databases about stock prices. Moreover, some detailed information such as ownership share about deals are not shared publicly. Furthermore, some firms are not publicly traded and there is no information about stock prices. This kind of lack deficiencies decrease the size of the sample. However, these problems may be gradually solved thanks to increasing number of deals and publicly traded companies in recent years and development in capital markets. Depending upon same reason, because of small sample, some different types of M&A characteristic cannot be elaborated in this study such as deal types. Second, there may find statistically insignificant wealth impact of M&As in this study. However, reasons behind this situation may be investigated especially in terms of managerial interest or principal agent problem. In my study processes, I cannot find any studies about this topic in Turkey. The research about this issue may be elaborated in Turkey in the future.

REFERENCES

Agrawal, A., Jaffe, J.F., Mandelker, G.N. (1992). The post-merger performance of acquiring firms: A re-examination of an anomaly. The Journal of Finance 47, 1605-1621.

Akay, H. (1997). İşletme Birleşmeleri ve Muhasebesi. Türkmen Kitapevi. İstanbul.

Akgüç, Ö. (1998). Finansal Yönetim, 7th edn. İstanbul: Muhasebe Enstitüsü Eğitim ve Araştırma Vakfı Yayınları: 17.

Akben-Selcuk, E. and Altiok-Yilmaz, A. (2011). The Impact of Mergers and Acquisitions on Acquirer Performance: Evidence from Turkey, Business and Economics Journal, BEJ-22, 18.

Akdoğu, E. (2011). Türkiye'de 1988-2008 Dönemindeki Firma Birleşmeleri, Birleşme Dalgaları ve Genel Tablo. Muhasebe ve Finansman Dergisi, (52), 137-152. Retrieved from https://dergipark.org.tr/tr/pub/mufad/issue/35631/396080.

Alexandridis, G., Mavrovitis, C. F., & Travlos, N. G. (2011). How have M&As changed? Evidence from the sixth merger wave. The European Journal of Finance, 663-688.

Alexandridis, G., Antypas, N., & Travlos, N. G. (2017). Value Creation from M&As: New Evidence. Journal or Corporate Finance, 43.

Andrade, G., Mitchell, M., & Stafford, E. (2001). New Evidence and Perspectives on Mergers. Journal of Economics Perspectives, 103-120.

Antoniou, A., & Zhao, H. (2004). Long-run Post Takeover Stock Return: The Impact of Overlapping Return, Takeover Premium, and Method of Payment.

Arnold, G. (2008). Corporate Financial Management, 4th edition. Edinburgh: Pearson/Prentice Hall.

Auguets, X., Martinez-Blasco, M., & Garcia-Blandon, J. (2017). The Sixth Merger Wave and Wealth Effects of M&A Announcements: An Analysis of Large European Bidding Companies. European Accounting and Management Review, 19-48.

Aybar, B. and Fıçıcı, A. (2009). "Cross-Border Acquisitions and Firm Value: An Analysis of Emerging-Market Multinationals," Journal of International Business Studies, 40(8): 1317- 1338.

Bae, K., Kang, J. & Kim, J. (2002) "Tunneling or Value Added? Evidence from Mergers by Korean Business Groups", The Journal of Finance, 57(6), pp. 2695-2740 doi: 10.1111/1540-6261.00510.

Bain, J. S. (1944). Industrial concentration and government antitrust policy. In H. F. Williamson (Ed.), The growth of the American economy: 616–630. New York: Prentice-Hall.

Barber, B. M., Lyon, J. D. and Tsai, C. (1999). Improved methods for tests of long-run abnormal stock returns, The Journal of Finance, vol. 54, no. 1, pp. 165-201.

Barber, B. and Lyon, J. D. (1997). Detecting long-run abnormal stock returns: the empirical power and specification of test statistics, Journal of Financial Economics, vol. 43, no. 3, pp. 341-372.

Bendaş, G. (2015). "The effects of acquisitions on firm value, evidence from Turkey", Dogus University Journal, Cilt 16, Sayı: 1, ss. 79-90.

Benston, G. J. (1982). Accounting Numbers and Economic Values, Antitrust Bulletin, 27.

Berk, J. & DeMarzo, P. (2014). Corporate Finance, 3rd edn., USA: Pearson Education, Inc.

Brown, S. J., & Warner, J. B. (1985). Using daily stock returns. Journal of Financial Economics, 14, 3e31.

Boateng, A and Du, M and Bi, XG and Lodorfos, G. (2018). Cultural distance and value creation of cross-border M&A: The moderating role of acquirer characteristics. International Review of Financial Analysis. ISSN 1057-5219 DOI: https://doi.org/10.1016/j.irfa.2018.12.009.

Bruner, Robert. (2004). Does M&A Pay? A Survey of Evidence for the Decision-maker. Journal of Applied Finance. 12.

Cable, J. and Holland, K. (1999). Modelling normal returns in event studies: a model-selection approach and pilot study. European Journal of Finance, 5 (4), 331-341. (doi:10.1080/135184799336993).

Campa, J.M. and I. Hernando. (2004). Shareholder Value Creation in European M&As, European Financial Management 10 (1), 47-81.

Chhetri, S. D., & Baral, R. P. (2018). Event Study of Effect of Merger Announcement on Stock Price in Nepal. Journal of Business and Management, 5, 64–73. https://doi.org/10.3126/jbm.v5i0.27390.

CJB Smit & MJD Ward. (2007). The impact of large acquisitions on the share price and operating financial performance of acquiring companies listed on the JSE, Investment Analysts Journal, 36:65, 5-14, DOI: 10.1080/10293523.2007.11082484.

Corderio, Marcos. (2015). “The Seventh M&A Wave”, Camaya Partners. http://www.camaya.com.br/site/es/insights/52/2014/09/the seventh M&A wave, (12.13.2015).

Çıtak, L., Yıldız, K., F. (2007). “Devralmanın Devralan İşletmelerin Hisse Senedi Getirileri Üzerindeki Etkisi: Sermaye Piyasası Kurulu İzni İle Gerçekleşen Devralmaların Devralan İşletmelerin Hisse Senedi Getiri Oranları Üzerindeki Etkisinin İncelenmesi”, Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 22 (2), 273-295.

Conn, C & Cosh, Andy & Guest, Paul & Hughes, Alan. (2001). Long-Run Share Performance of UK Firms Engaging in Cross-Border Acquisitions.

Çukur, S., Eryigit, R. (2006). “Banka Birleşme ve Devralma Olaylarının Borsadaki Etkisi”, İktisat, İşletme ve Finans, Yıl 21, Sayı 243, s. 96-107.

Damodaran, A. (2005). The value of synergy [pdf] Available at: https://ssrn.com/abstract=841486 [Accessed 24 April 2021].

Danbolt, J. & Maciver, G. (2012). Cross-Border versus Domestic Acquisitions and

The Impact on Shareholder Wealth. Journal of Business Finance & Accounting, 39(7) & (8), 1028–1067.

Datta S., M. Iskandar-Datta, and K. Raman. (2001). Executive Compensation and Corporate Acquisition Decisions, Journal of Finance 56(6), 2299-2336.

De Jong M.C. (2018). Global merger waves and cultural distance: The effect of cultural distances on cross-border M&A transactions, MSc Thesis, Erasmus University, Rotterdam.

Dennis, D. K., & McConnell, J. J. (1986). Corporate Mergers and Security Returns. Journal of Financial Economics, 143-187.

Doukas, J. and Travlos, N.G. (1988). The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions. The Journal of Finance, 43: 1161-1175. https://doi.org/10.1111/j.1540-6261.1988.tb03962.x.

Dringoli, A. (2016). Merger and Acquisition Strategies: How to Create Value, 1st edh., Great Britain: Edward Elgar Publishing.

Dutta, S. and Jog, V. (2009). The long-term performance of acquiring firms: a re-examination of an anomaly, Journal of Banking and Finance, vol. 33, no. 8, pp. 1400-1412.

Ehrhardt, M.C. & Brigham, E.F. (2011). Financial Management: Theory and Practice, 13th edn., USA: South-Western Cengage Learning.

Elmas, B. (2007). İşletme Politikalarından Şirket Birleşmelerinin Hisse Senedi Fiyatı Üzerine Etkisi- İMKB Örneği, MSc Thesis, Atatürk University: Erzurum.

Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance, Journal of Financial Economics, vol. 49, pp. 283-306.

Farrell, J. and Shapiro, C. (2001). "Scale Economies and Synergies in Horizontal Merger Analysis," Antitrust Law Journal, 68.

Firth, M. (1980). Shareholder Returns, and the Theory of the Firm. The Quarterly Journal of Economics, 235-260.

Franks, J., Harris, R., & Titman, S. (1991). The post-merger share-price performance of acquiring firms. Journal of Financial Economics, 81-96.

Gabrielsen, J.F. (2003). Conglomerate Mergers: Vertical Mergers in Disguise?

International Journal of Economics of Business. Vol.10 No.1:1.

Gaughan, P. A. (2007). Mergers, Acquisitions, and Corporate Restructuring, 4th edition, NJ: John Wiley & Sons.

Gaughan, P. A. (2015). Mergers, Acquisitions, and Corporate Restructurings, 6th edn., USA: John Wiley & Sons, Inc.

Genç, A. ve Ender C. (2013). Birleşme Ve Satın Alma Duyurularında Anormal Getiri: Satın Alan Şirket Ve Hedef Şirket Açısından Bir Inceleme. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 17(3), 359-376.

Gertsen, C., M., Søderberg, A. & Torp, J., E. (1998). Different Approaches to the Understanding of Culture in Mergers and Acquisitions. In M. Cardel Gertsen, A. Søderberg and J E. Torp (Eds.), Cultural Dimensions of International Mergers and Acquisitions (p. 17-38). Berlin: Walter de Gruyter.

Gilson, R., Scholes, M.S. & Wolfson, M.A. (1988). "Taxation and the Dynamics of Corporate Control: The Uncertain Case for Tax-Motivated Acquisitions", Coffee, J., Lowenstein, L. & Ackerman, S.R. (Ed.), Knights, Raiders and Targets, pp. 273–299, New York: Oxford University Press.

Goergen, M. and Renneboog, L. (2004). Shareholder Wealth Effects of European Domestic and Crossborder Takeover Bids," European Financial Management, 10(1): 9-45.

Gregory, A. (1997). An examination of the long run performance of UK acquiring firms, Journal of Business Finance and Accounting 24, 971-1002.

Hayn, C. (1989). “Tax Attributes as Determinants of Shareholder Gains in Corporate Acquisitions”, Journal of Financial Economics, 23(1), pp. 121-153 doi: 10.1016/0304-405X(89)90008-1.

Harford, J. (1999). Corporate Cash Reserves and Acquisitions. The Journal of Finance, 1969-1997.

Harford, J. and Li, K. (2007). Decoupling CEO wealth and firm performance: the case of acquiring CEOs, The Journal of Finance, vol. 62, no. 2, pp. 917-949.

Holmen, M., and J. Knopf. (2004). Minority Shareholder Protections and the Private Benefits of Control for Swedish Mergers, Journal of Financial and Quantitative Analysis 39(1), 167-91.

Holmström, B., & Kaplan, S. N. (2001). Corporate governance and merger activity in the United States: Making sense of the 1980s and 1990s. Journal of Economic Perspectives, 15(2): 121–144.

Hussain, Salar & Khoso, Imam-Ud-Din & Qureshi, Fiza. (2020). Impact of mergers and acquisitions on shareholders' wealth: a study of Telecom sector of Pakistan. Indian Journal of Science and Technology. 13. 10.17485/IJST/v13i21.615.

IMAA, M&A Statistics. (2018). https://imaa-institute.org/mergers-and-acquisitions-statistics/.

Ings, R. & Inoue, K. (2018). “Do Cross-Border Acquisitions Create More Shareholder Value than Domestic Deals for Firms in a Mature Economy? The Japanese Case”, Corporate Ownership and Control, 15(3-1), pp. 268-281 doi: 10.22495/cocv15i3c1p10.

İçke, T. B. (2007). Sirket Birlesmeleri Hisse Senedi Degeri ve Finans Sektörü, İstanbul, Derin Yayıncılık.

Jakobsen, Jan Bo and Voetmann, Torben, Post-Acquisition Performance in the Short and Long Run: Evidence from the Copenhagen Stock Exchange 1993-1997. European Journal of Finance, Vol. 9, No. 4, pp. 323-342, August 2003, Available at SSRN: https://ssrn.com/abstract=1115946.

Jensen, M.C. (1986). ‘‘Agency costs of free cash flow, corporate finance, and takeovers.’’ American Economic Review, 76(2): 323–329.

Jensen, Michael C. and Ruback, Richard S. (1983). “The market for corporate control: The scientific evidence”, Journal of Financial Economics, Volume 11, pp. 5-50.

Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure, Journal of Financial Economics, vol. 3, no. 4, pp. 305-360.

Jeon, Y. & Kim, Y. (2004). “Conglomerates and Economic Calculation”, The Quarterly Journal of Austrian Economics, 7(1), pp. 53–64 doi: 10.1007/s12113-004-1035-5.

Johnson, H.J. (1999). Corporate Finance Manual Mergers and Acquisitions A Framework for the Right Executive Decision. Pearson Education Limited, USA.

Jovanovic, B., & Rousseau, P. L. (2001). Mergers and technological change: 1885–1998.Working paper No. 0116, Department of Economics, Vanderbilt University.

Kothari, S. P. and Warner, J. B. (2008). Econometrics of Event Studies, Handbook of Corporate Finance: Empirical Corporate Finance edited by Eckbo, B. E.

Kudelko, J., Wirth, H., Bachowski C. & Gacek, J.K. (2015). “Horizontal Integration in The Development Strategy of Mining Companies”, Mining Science, 22, pp. 97−114 doi: 10.5277/ msc152209.

Kumar, Pushpender & Kuncolienker, Saylee. (2019). Impact of m&a announcement on acquiring bank's stock price-an event analysis approach. JIMS8M: The Journal of Indian Management & Strategy. 24. 4. 10.5958/0973-9343.2019.00018.8.

McWilliams, A., Siegel, D. (1997). Event Studies in Management Reserarch:

Theorical and Emprical Issues, Academy of Management Journal, 3.

Lee S. P., & Isa, M. (2012). Long term share performance of Malaysian acquiring firms. Managerial Finance, 38 (10), 958-976.

Leeth, J. D., & Borg, J. R. (2000). The Impact of Takeovers on Shareholder Wealth during the 1920s Merger Wave. Journal of Financial and Quantitative Analysis, 217-238.

Loughran, T., & Vijh, A. M. (1997). Do Long-Term Shareholders Benefit from Corporate Acquisitions? The Journal of Finance, 1765-1790.

Ma, Jianyu, Pagan, Jose A., & Chu, Yun. (2009). Abnormal returns to mergers and acquisitions in ten Asian stock markets. The Free Library.

MacKinlay, Craig. (1997). “Event Studies in Economics and Finance”, Journal of Economic Literature, Volume 35, No. 1, pp. 13-39.

Mager, Ferdinand & Meyer-Fackler, Martin. (2017). "Mergers and acquisitions in Germany: 1981–2010," Global Finance Journal, Elsevier, vol. 34(C), pages 32-42.

Mandacı, P. E. (2004). “Şirketlerin Birleşme ve Satın Alma Duyurularının Hisse Senedi Fiyatları Üzerine Etkileri”, iktisat işletme ve Finans, 225, s. 118-123.

Mann, Henry B., and Whitney, Donald R. (1947). “On a Test of Whether one of Two Random Variables is Stochastically Larger than the Other”, The Annals of Mathematical Statistics, Volume 18, No. 1, pp. 50-60.

Markham, J. (1955). Survey of the evidence and findings on mergers. In G. J. Stigler (Ed.), Business concentration and price policy: 141–182. Boston: Princeton University Press.

Markowitz, H. (1952). “Portfolio Selection”, The Journal of Finance, 7(1), pp. 77-91 doi: 10.2307/2975974.

Martins, S. M. (2015). “M&A in Portugal: an event study”, Master dissertation, University of Porto, Porto.

Martynova, M., and Renneboog, L. (2011). “The Performance of the European Market for Corporate Control: Evidence from the 5th Takeover Wave”, European Financial Management, Volume 17, No. 2, pp. 208–259.

Martynova, M., & Renneboog, L. (2008). A century of corporate takeovers: What have we learned and where do we stand? Journal of Banking and Finance, 32(10): 2148–2177.

Martynova, M., & Renneboog, L. (2006). Mergers and Acquisitions in Europe. In L. Renneboog, Advances in Corporate Finance and Asset Pricing (pp. 15-76). Amsterdam: Elsevier.

McWilliams, A. & Siegel, D. (1997). “Event Studies in Management Research: Theoretical and Empirical Issues”, The Academy of Management Journal, 40(3), pp. 626-657 doi: 10.2307/257056.

Mitchell, M. L., & Mulherin, J. H. (1996). The impact of industry shocks on takeover and restructuring activity. Journal of Financial Economics, 193-229.

Mitchell, M. and E. Stafford. (2000). Managerial Decisions and Long-Term Stock Price Performance, Journal of Business 73, 287-329.

Moeller, S. and Schlingemann, F.P. and Stulz, R.M. (2003). Do Shareholders of Acquiring Firms Gain from Acquisitions. Working paper, Ohio State University.

Moeller, S.B., Schlingemann, F.P. and Stulz, R.M. (2005). Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave, Journal of Finance 60(2), 757-782.

Moskovicz, A. (2018). “Mergers and Acquisitions: A Complete and Updated Overview”, International Journal of Economics and Management Sciences, 7(4) doi: 10.4172/2162-6359.1000540.

Motis, Jrisy. (2007). "Mergers and Acquisitions Motives," Working Papers 0730, University of Crete, Department of Economics. Kleinert, J. and H. Klodt, “Causes and Consequences of Merger Waves”, Kiel Working Papers, No: 1092, January 2002, p. 1-28.

Mueller, D. (1980). The determinants and effects of Mergers: An International Comparison, ed. by Oelgeschlager, Gunn & Hain. Cambridge, Massachusetts.

Nystad, R. & Grinden, T. (2013). Do Acquiring Firms Gain from Takeovers? Empirical Evidence from the Norwegian Stock Market, MSc Thesis, BI Norwegian Business School: Oslo.

Oelger, M. and Schiereck, D. (2011). Cross-Border M&A and International Stock Market Integration-Evidence from Turkey, International Journal of Economic Research, 2(3), 40-55.

Öztunalı, A. (2008). Birleşme ve Satın Almalar Yoluyla Değer Yaratımı. (Doktora Tezi). Ankara: Ankara Üniversitesi Sosyal Bilimler Enstitüsü.

Phama, N., Oh, K.B. & Pech, R. (2015). “Mergers and Acquisitions: CEO Duality, Operating Performance and Stock Returns in Vietnam”, Pacific-Basin Finance Journal, 35, pp. 298–316 doi: 10.1016/j.pacfin.2015.01.007.

Rani, N. Yadav, S.S. Jain, P.K. (2015). “Impact of mergers and acquisitions on shareholders’ wealth in the short run: An event study approach” Vikilpa: The Journal of Decision Makers, Cilt 40, Sayı: 3, ss. 293-312.

Rau, P.R. and T. Vermaelen. (1998). Glamour, value and the post-acquisition performance of acquiring firms, Journal of Financial Economics 49, 223-253.

Reis, E. (2015). The Determinants of Acquirer Returns in the Turkish Stock Market, Boğaziçi Journal Review of Social, Economic and Administrative Studies, Vol. 29, no. 2 (2015), pp. 21-39.

Roll, R. (1986). The hubris hypothesis of corporate takeovers, The Journal of Business, vol. 59, no. 2, pp. 197-216.

Roller L-H, Stennek, J., and Verboven F. (2006). "Efficiency Gains from Mergers," in European Merger Control: Do We Need and Efficiency Defence, ed. by Ilzkovitz and Meiklejohn. Edward Elgar.

Ross, S.A., Westerfield, R.W. & Jordan B.D. (2016). Corporate Finance, 11th edh., Singapore: McGraw Hill.

Schaik, Dimitri V., & Steenbeek, Onno W. (2004). Price and Volume Effects of Merger Bids in Japan. vailable at SSRN: http://ssrn.com/abstract=592081.

Shah, P., & Arora, P. (2014). "M&A Announcements and Their Effect on Return to Shareholders: An Event Study", Accounting and Finance Research, 3(2), pp. 170-190 doi:10.5430/afr.v3n2p170.

Shleifer, Andrei, & Vishny W. Robert. (1991). "Takeovers in the '60s and the '80s: Evidence and Implications." Strategic Management Journal December (12): 51-59.

Singh, A. (1971). Take-overs: Their Relevance to the Stock Market and the Theory of the Firm. Cambridge: Cambridge University Press.

Stigler, G. Monopoly and Oligopoly power by merger. American Economic Review, 40 (1950): 23-34.

Stocking, G. (1955). Comment. In G. Stigler (Ed.), Business Concentration and Price Policy. Princeton: Princeton University Press.

Taşcı, M. (2008). Analysis of the Recent M&A Wave in Turkish Banking Sector: An event Study and Case Study Approach, Capital Markets Board of Turkey Academic Studies.

Trautwein, F. (1990). Merger motives and merger prescriptions, Strategic Management Journal, vol. 11, no. 4, pp. 283-295.

Sudarsanam, Sudi. (2003). Creating Value from Mergers and Acquisitions, the Challenges. Prentic Hall, Financial Times.

Uludağ, B. K. ve Gülbudak, Ö. D. (2011). Hisse Senedi Fiyatlarının Şirket Birleşme Duyurularına Tepkisi: İstanbul Menkul Kıymetler Borsası (İMKB) Üzerine Bir Uygulama, İMKB Dergisi, 12(47), 19-46.

Watkins, M. (1927). Industrial Combinations and Public Policy. Cambridge: Cambridge University Press.

Watson, D. & Head, A. (2007). Corporate Finance: Principles & Practice, 4th edh., Spain: Financial Times Prentice Hall.

Weston, J.F., Mitchell, M. L. & Mulherin, J.H. (2003). Takeovers, Restructuring, and Corporate Governance (4th Edition). Pearson/Prentice Hall. USA.

Wilcoxon, Frank. (1945). "Individual comparisons by ranking methods", Biometrics Bulletin, Volume 1, pp.80-83.

Wild, P. & Rapinet, K. (2007). "Acquisitions of Smaller, Owner-Managed Businesses", Reuvid, J. (Ed.), Mergers & Acquisitions: A Practical Guide for Private Companies and Their UK and Overseas Advisers, pp.207-214, Great Britain: Kogan Page Limited.

Yılmaz, M. (2010). Şirket Birleşme ve Devralmalarının Getiri Üzerinde Etkisi Ve İMKB'da Bir Uygulama, PhD Thesis, Kadir Has University: İstanbul.

Yörük, N., Ban, Ü. (2006). "Şirket Birlesmelerinin Hisse Senedi Fiyatlarına Etkisi: İMKB'de İşlem Gören Gıda Sektörü Şirketlerinde Birleşme Etkisinin Analizi", Muhasebe ve Finansman Dergisi, 40, s. 88-101.

Zakaria, N., & Hashim, F. (2017). Emerging Markets: Evaluating Graham's stock selection criteria on portfolio return in Saudi Arabia Stock market. International Journal of Economics and Financial Issues, 7(2), 453-459.

Zakaria, Nadisah & Kamaludin, K. (2018). The short-and-long run performance of mergers and acquisitions: Evidence from tadawul. Academy of Accounting and Financial Studies Journal. 22. 1-15.

Zaremba, A., & Płotnicki, M. (2016). Mergers and acquisitions: Evidence on post-announcement performance from CEE stock markets. Journal of Business Economics and Management, 17(2), 251-266.

Zaremba, A., Szyszka, A., Plotnicki, M., & Grobelny, P. (2018). Post-merger returns in frontier markets, or how we learned to stop worrying and love the acquirers. Journal of Business Economics and Management, 17(1), 96-109.

APPENDIX

Table 3: Studies about short-term effect of M&As

Study, sample country	Sample period	Market Model	Event Window	Type of M&A	Bidder CARs %
Leeth and Borg (2000), US	1919-30	MM	(-1, 0)	M&As	0.14%
Dodd (1980), US	1970-77	MM	(-10, +10)	Merger	**-7,22%
Malatesta (1983), US	1969-74	MM	(0, +20)	Merger	0.90%
Franks, Harris and Titman (1991), US	1975-84	MM	(-5, +5)	M&As	*-1,02%
Graham, Lemmon and Wolf (2002), US	1980-95	MM	(-1, +1)	M&As	*0,78%
Kang, Shivdasani and Yamada (2000), Japan	1977-93	MM	(-5, +5)	M&As	*2,22%
Goergen and Renneboog (2004), Europe	1993-01	MM	(-2, +2)	Merger	*4,35%
Martynova and Renneboog (2006), Europe	1993-01	MM	(-5, +5)	Merger	*1,07%
Holmen and Knopf (2004), Sweden	1985-95	MM	(-5, +5)	Acquisition	0.32%
Schaik and Steenbeek (2004), Japan	1993-03	MM	(-1, +1)	M&As	0.57%
Bae, Kang and Kim (2002), Korea	1981-97	MM	(-5, +5)	M&As	**2,66%
Andrade, Mitchell and Stafford (2001), US	1973-79	MM	(-1, +1)	M&As	-0.30%
Moeller and Schlingemann and Stulz (2005), US	1980-90	MM	(-1, +1)	M&As	*0,64%

Note: *, **, *** present significance level at 1%, 5%, and 10% respectively.

Table 4: Key studies in developed countries are examined by BHAR Approach

Study	Data	Investigation Period	Methodology	Results
Franks, Harris, and Titman (1991)	399 transactions 1975-1984 in the USA	36 months	BHAR	No statistically significant abnormal returns
Gregory (1997)	452 deals between 1984 and 1992	24 months	BHAR and calendar-time approaches	-11.8% to –18% statistically significant negative wealth return
Loughran & Vijh (1997)	947 US firms over 1970-1989	60 months	BHAR	-15,9% significant negative wealth return
Rau and Vermaelen (1998)	2823 mergers and 316 tender offer in the period between 1980-1991	36 months	BHAR with Control portfolio	-4% significant abnormal return for mergers in 36 months; +8.56% significant abnormal return for tender offers
Mitchell & Stafford (2000)	2767 are evaluated between 1958-1993 in the USA	36 months	BHAR and calendar-time portfolio approach	No significant abnormal return
Moeller, Schlingemann and Stulz (2003)	12,023 acquisitions (U.S. data) between 1980 and 2001	36 months	BHAR; and Calendar time portfolio approach	BHAR: -16.02% statistically significant negative results Calendar time: No signicant results
Dutta & Jog (2009)	1300 transactions between 1993-2002 in Canada	36 months	BHAR and calendar-time portfolio approach	No significant abnormal return

Table 5: Descriptive Statistics

Panel A: Form of Acquisitions

Acquisition Form	Total	Merger	Acquisition of Majority Assets	Acquisition of Assets	Acquisition of Partial Interest
Number of Deals	123	31	62	24	6
% of Whole Sample	100.0%	25.2%	50.4%	19.5%	4.9%

Panel B: Non-Banking Sector vs. Banking Sector

Transactions Type	Total	Non-Banking Sector	Banking Sector
Total	123	116	7
Merger	31	30	1
Acquisition of Majority Assets	62	56	6
Acquisition of Assets	24	24	0
Acquisition of Partial Interest	6	6	0

Panel C: Related Business vs. Unrelated Business

Related/Unrelated Businness	Total	Related	Unrelated
Number of Transactions	123	85	38
% of Total Sample	100.0%	69.1%	30.9%
Form of Acquisitions			
Merger	31	22	9
Acquisition of Majority Assets	62	40	22
Acquisition of Assets	24	19	5
Acquisition of Partial Interest	6	4	2

Panel D: Local Deals vs. Cross Border Deals

Local/Cross Border	Total	Local	Cross Border
Number of Transactions	123	107	16
% of Total Sample	100.0%	87.0%	13.0%
Form of Acquisitions			
Merger	31	25	6
Acquisition of Majority Assets	62	55	7
Acquisition of Assets	24	22	2
Acquisition of Partial Interest	6	5	1

Table 5: continued

Panel E: Cross Border Deals – Target Region

Cross Border – Target Region	Total	Merger	Acquisition of Majority Assets	Acquisition of Assets	Acquisition of Partial Interest
Total	16	6	7	2	1
Africa	1	1	0	0	0
Asia	2	0	1	0	1
Europe	12	4	6	2	0
America	1	1	0	0	0

Panel F: Cross Border Deals – Target Country

Cross Border – Target Country	Total	Merger	Acquisition of Majority Assets	Acquisition of Assets	Acquisition of Partial Interest
Total	16	6	7	2	1
Austria	1	1	0	0	0
Bosnia and Herzegovina	1	0	1	0	0
Germany	2	1	1	0	0
Hungary	1	0	0	1	0
India	1	0	1	0	0
Indonesia	1	0	0	0	1
Romania	3	1	2	0	0
Russia	2	1	0	1	0
Serbia	1	0	1	0	0
South Africa	1	1	0	0	0
United Kingdom	1	0	1	0	0
United States	1	1	0	0	0

Table 5: continued

Panel G: Acquirer Sector Breakdown

	No of Sector	No of Acquirers	% of Total Sample
Total	33	123	100.0%
Construction Materials		10	8.1%
Textiles & Apparel		9	7.3%
Food and Beverage		9	7.3%
Power		8	6.5%
Transportation & Infrastructure		8	6.5%
Banks		7	5.7%
Oil & Gas		7	5.7%
REITs		6	4.9%
Other Financials		6	4.9%
Food & Beverage Retailing		5	4.1%
Alternative Financial Investments		5	4.1%
Automobiles & Components		4	3.3%
Metals & Mining		4	3.3%
Building/Construction		4	3.3%
Household & Personal Products		3	2.4%
Advertising & Marketing		3	2.4%
Electronics		3	2.4%
Pharmaceuticals		2	1.6%
Home Furnishings		2	1.6%
Paper & Forest Products		2	1.6%
Discount and Department Store Retailing		2	1.6%
Chemicals		2	1.6%
Wireless		2	1.6%
Asset Management		1	0.8%
Agriculture & Livestock		1	0.8%
Computers & Peripherals		1	0.8%
Recreation & Leisure		1	0.8%
Brokerage		1	0.8%
Computers & Electronics Retailing		1	0.8%
Software		1	0.8%
Hotels and Lodging		1	0.8%
Petrochemicals		1	0.8%
Telecommunications Services		1	0.8%

Table 5: continued

Panel H: Target Sector Breakdown

	No of Sector	No of Targets	% of Total Sample
Total	44	123	100.0%
Power		13	10.6%
Textiles & Apparel		9	7.3%
Transportation & Infrastructure		8	6.5%
Construction Materials		7	5.7%
Food & Beverage Retailing		7	5.7%
Other Financials		7	5.7%
Metals & Mining		5	4.1%
Banks		4	3.3%
Food and Beverage		4	3.3%
Oil & Gas		4	3.3%
Other Consumer Products		4	3.3%
IT Consulting & Services		3	2.4%
Agriculture & Livestock		3	2.4%
Software		3	2.4%
Non Residential		2	1.6%
REITs		2	1.6%
Electronics		2	1.6%
Automobiles & Components		2	1.6%
Real Estate Management		2	1.6%
Building/Construction		2	1.6%
Brokerage		2	1.6%
Chemicals		2	1.6%
Healthcare Equipment		2	1.6%
Paper & Forest Products		2	1.6%
Telecommunications Services		2	1.6%
Other Industrials		2	1.6%
Telecommunications Equipment		1	0.8%
Household & Personal Products		1	0.8%
Other Retailing		1	0.8%
Other Real Estate		1	0.8%
Insurance		1	0.8%
Pharmaceuticals		1	0.8%
Advertising & Marketing		1	0.8%
Home Improvement Retailing		1	0.8%
Automotive Retailing		1	0.8%
Containers & Packaging		1	0.8%
Discount and Department Store Retailing		1	0.8%
Machinery		1	0.8%
Wireless		1	0.8%
Computers & Electronics Retailing		1	0.8%
Asset Management		1	0.8%
Alternative Energy Sources		1	0.8%
Professional Services		1	0.8%
Computers & Peripherals		1	0.8%

Table 5: continued

Panel I: Breakdown of M&As by Years

	Number of Deals	% of Total Sample
Total	123	100.0%
2001	1	0.8%
2002	3	2.4%
2003	1	0.8%
2004	1	0.8%
2005	6	4.9%
2006	8	6.5%
2007	8	6.5%
2008	7	5.7%
2009	9	7.3%
2010	10	8.1%
2011	10	8.1%
2012	12	9.8%
2013	12	9.8%
2014	11	8.9%
2015	14	11.4%
2016	8	6.5%
2017	2	1.6%

Table 6: Acquirer's Cumulative Abnormal Return (CARs) & Buy and Hold Abnormal Returns (BHARs)

Panel A: Full Sample

Description	Event Window	Mean CAR/BHAR	Median CAR/BHAR	Trimmean	Min	Max	t-test	Wilcoxon signed-rank test
Full Sample	CAR (-10 0)	0.15%	0.00%	0.09%	-1.44%	5.07%	1.84	*-2,07
	CAR (-5 0)	0.16%	-0.07%	0.09%	-2.57%	6.20%	1.48	-1.39
	CAR (-1 +1)	0.32%	0.07%	0.23%	-4.17%	11.22%	1.70	-1.12
	CAR (-2 +2)	0.23%	-0.01%	0.11%	-2.67%	11.55%	1.58	-0.58
	CAR (-5 +5)	0.16%	-0.04%	0.07%	-2.07%	7.94%	1.57	-0.67
	CAR (0 +5)	0.28%	-0.06%	0.12%	-2.08%	14.48%	1.72	**-2,66
	CAR (0 +10)	0.08%	-0.07%	0.06%	-6.22%	6.50%	0.86	**-2,04
	BHAR (36 Months)	1.28%	-5.05%	0.42%	-67.44%	103.72%	0.40	*-1,96

This table exhibits the CARs and BHARs to the acquirers. All tables are prepared after winsorizing the data 5% from each end that means to change the extreme values so that it is close to other values in the set. Trim mean also shows the value by removing extreme values 5% from each end.

***, **, and * indicates statistical significance level at 1%, 5% and 10%, respectively

Table 6: continued

Panel B: Difference Test- Related vs. Unrelated M&As

Business	Related		Unrelated		Difference Tests	
	No of Observations: 85		No of Observations: 38			
Event Window	Mean CAR/BHAR	Median CAR/BHAR	Mean CAR/BHAR	Median CAR/BHAR	t-test / t-value	Mann-Whitney test /z-value
CAR (-10 0)	0.19%	0.01%	0.05%	-0.04%	0.71	-0.95
CAR (-5 0)	0.14%	-0.05%	0.20%	-0.08%	-0.21	-0.01
CAR (-1 +1)	0.44%	0.24%	0.04%	-0.14%	0.91	-1.28
CAR (-2 +2)	0.31%	0.00%	0.07%	-0.02%	0.68	-0.94
CAR (-5 +5)	0.21%	-0.02%	0.04%	-0.06%	0.77	-0.70
CAR (0 +5)	0.38%	0.00%	0.04%	-0.26%	1.10	-0.73
CAR (0 +10)	0.12%	-0.08%	-0.01%	-0.07%	0.67	-0.65
BHAR (36 Months)	2.41%	-4.54%	-1.24%	-11.63%	0.73	-0.77

***, **, and * inndicates statistical significance level at 1%, 5% and 10%, respectively

Panel C: Difference Test- Cross Border and Local M&As

Target Country	Cross Border		Local		Difference Tests	
	No of Observations: 16		No of Observations: 107			
Event Window	Mean CAR/BHAR	Median CAR/BHAR	Mean CAR/BHAR	Median CAR/BHAR	t-test / t-value	Mann-Whitney test /z-value
CAR (-10 0)	0.28%	0.05%	0.13%	-0.02%	0.51	-1.03
CAR (-5 0)	0.43%	-0.01%	0.12%	-0.07%	0.94	-0.84
CAR (-1 +1)	0.18%	-0.10%	0.34%	0.10%	-0.12	-0.49
CAR (-2 +2)	0.33%	0.08%	0.22%	-0.02%	0.29	-0.59
CAR (-5 +5)	0.17%	0.04%	0.16%	-0.04%	0.04	-0.50
CAR (0 +5)	-0.11%	-0.04%	0.33%	-0.06%	*-1,93	-0.50
CAR (0 +10)	-0.43%	-0.18%	0.16%	-0.06%	-1.47	-0.96
BHAR (36 Months)	1.02%	-5.59%	1.32%	-5.05%	-0.23	-0.37

***, **, and * indicates statistical significance level at 1%, 5% and 10%, respectively

Table 6: continued

Panel D: Difference Test- M&As before 2006 vs. M&As after 2006

Period	M&As before 2006		M&As after 2006		Difference Tests	
	No of Observations: 12		No of Observations: 111			
Event Window	Mean CAR/BHAR	Median CAR/BHAR	Mean CAR/BHAR	Median CAR/BHAR	t-test / t-value	Mann-Whitney test /z-value
CAR (-10 0)	0.06%	-0.13%	0.16%	0.00%	0.68	-0.52
CAR (-5 0)	0.09%	-0.21%	0.16%	-0.05%	0.21	-0.73
CAR (-1 +1)	0.22%	-0.21%	0.33%	0.18%	-0.06	-0.53
CAR (-2 +2)	0.09%	0.09%	0.25%	-0.02%	0.49	-0.13
CAR (-5 +5)	-0.11%	-0.07%	0.19%	-0.02%	1.12	-0.84
CAR (0 +5)	-0.03%	0.04%	0.31%	-0.09%	0.94	-0.38
CAR (0 +10)	0.11%	0.02%	0.08%	-0.09%	0.04	-0.59
BHAR (36 Months)	-1.24%	-12.58%	1.56%	-4.54%	0.32	-0.46

***, **, and * indicates statistical significance level at 1%, 5% and 10%, respectively

CV

I have graduated from Marmara University Programmes with Political Science and International Relations in 2016.

I have worked for Turkcell as a Corporate Finance and M&A specialist between 2016 and 2019. After that, I was a Senior Financial and Strategic Planning Analyst at EMAAR Turkey between 2019 and 2020. I have been working for Turk Telekom Group as a Business Planning Specialist since 2020.