Shareholder wealth effect of merger and acquisition announcements in telecommunication industry: Event study

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Abstract
This paper investigates shareholder wealth effect of merger and acquisition\textsuperscript{1} announcement in Telecommunication industry for the period 2002-2013. It is shown that M&A triggers significant positive reaction for the target (12.1\%) and for the bidder (1.46\%). I also investigate the wealth effect from conglomerate acquisitions and close industry related non-conglomerate deals. Results show positive and significant share price reaction for conglomerate acquirers of (2.13\%) compared to economically and statistically insignificant reaction for the non-conglomerate acquirers of (0.08\%). A sub sample investigates market reaction of deals with European acquirer. Positive share price reaction is found for the targets but all coefficients for the acquirers are insignificant.

\textsuperscript{1} Mergers occur when the bidder buys a target and the target become part of the bidder operations (the target stops to exists as a separate entity). Acquisitions occur when the acquirer buys the target and the target continue to exists no matter that it is owned by the bidder.
1. Introduction

During the 1990’s the telecommunication sector showed rapid development caused by government deregulation, market liberalization and swift technology change. In this paper I build on M&A activity from 1990-2000 in the telecommunication sector. Merger and acquisition activity from the 90’s acts as a point of comparison for this research. Telecommunication sector is characterized by rapid technologic change. An illustration is the rising accessibility of internet from the 1990’s, which displaced the conventional telephone. Telecommunication products are becoming increasingly complex. For example utilities like internet, cable television and telephone plan are offered within one service package. Mergers and acquisitions allow companies to form a new entity and produce unique products as a result of the synergies between the two companies.

One reason for the boom in acquisition activities in telecommunication industry for the period 1996-2001 was government deregulation. First, United States passed deregulation act from 1996 forcing European Union to liberalize its own market in 1998 in order to stay competitive. The main goals of the act in Europe were to increase competition in the monopolized area and harmonize regulatory principles. Telecommunication companies faced serious challenges with their strategy for the next decade Graack (1996). On one hand they could follow strategy of liberalization of local monopolies and search for opportunities to enter new markets; however some countries preferred to back their local monopolies and focus on keeping their local share untouched. Results were in favor of the first outlining that national monopolies are inefficient. As a result of the deregulation in European telecommunication service competition increased, national monopolies started to enter new markets as well as their local shares become targeted by foreign competitors. Shares in telecommunication companies rose compared to other industries until the Dotcom bubble burst March 2000. For the period of 1999 until 2000 NASDAQ doubled its value to 5048.62. Until 20th of March the index has lost more than 10% of its value followed by value drop on April 4th to 3649 and then rise 4223. This gives the broad picture of the market downfall; the market reaction in the telecommunication sector was even sharper, The Economist defin the telecom bust as “in some ten times bigger than the dotcom crash”. The dot-com bubble burst lowered but did not end the M&A activity in the sector. An example illustrating the latter is the merger between AT&T and Comcast 2001 the value of the deal was 72 billion. Another characteristic of the sector is outlined in the work of Warf (2003). He describes the telecommunication industry as one facing a lot of challenges. As a sector with oligopoly
structure government regulation can play a significant role in it. The author also suggests that without dynamically adjusting intervention consumers will suffer from lowered competitiveness as a result of the oligopoly power of few giant market players. The history of the sector is rich of exciting events; in this paper I will examine the announcement effect of M&A in the sector and its effect on the shareholder wealth. My study contributes to the existing literature in the following way:

First it contrasts to Rieck and Doan (2009) who examine acquirers and service diversification strategy in telecommunication industry for different time frame and with smaller sample.

Second it goes deeper in on the industry level to examine the value created in the industry as a result of conglomerate and non-conglomerate deals. Although a wide range of literature has examined the diversification (conglomerate) acquisitions compared to close industry (non-conglomerate) acquisitions few papers have been written for telecommunication industry in specific. For the time I am writing this paper I am not aware of an already existing publication examining conglomerate and non-conglomerate M&A in the same industry for the period 2002-2013.

The remaining sections of the paper are organized as follows: In the next Section – Literature review I discuss previous findings relevant for my work. In the following chapter-Hypothesis development the hypothesis in this research are formed and explained. These hypotheses are tested using event study methodology which I describe in the next section- Research methodology. After that I explain the way I form my sample of companies used in this study. The results of the empirical study are presented in Empirical results section. The final section- Conclusion Discussion and Limitations presents an overview of the results in this paper, it addresses the relevance of the findings for the research community and the limitations of the study.

2. Literature review

In this section I review the potential motives for M&A that have been discussed to date, value creating and managerial motives. Additionally I will review papers that have examined the diversification strategy as opposed to concentrated M&A in the same sector.
2.1 Motives for M&A

There are several possible motives for engaging in M&A: strategic, market, economic and personal motive (Hopkins, 1999). Strategic motive includes activities which serve the company strategy by creating synergies which improve the core competences of the company, allow the company to improve its products and provide complementary resources. Market motive aims at entering new markets in new areas or countries by acquiring an already established competitor. This strategy allows the acquirer to enter a new market by eliminating an already existing market player. Essential to the market motive is that it does not add additional competitive pressure to the market. Establishing economies of scale and scope is a key motive regarding acquisitions. The goal of the first is to lower the average cost by increasing the number of units sold. Economies of scope can be achieved by reducing resources spent on similar activities for the acquirer and the target.

2.11 Value creating theories

This research will focus on the market reaction after an acquisition announcement. The potential synergies between the target and the acquirer can be valued immediately by the market. In case the acquisition creates synergies we would observe that the total effect from the acquisition for the target and the bidder is significantly higher than zero. Goergen, M and Renneboog, L (2004) form a sample of 187 large European cross-border takeovers for the period 1993-2000 and show that on average targets experience positive abnormal returns on the day of the announcement of 9%. For the complete sample of M&A deals bidders experienced statistically significant positive abnormal returns of 0.7%. Additionally they researched the deal characteristics effect on the shareholders wealth and find that targets experience higher abnormal returns when the acquisition is hostile, while bidders lose on average 2.5%. Also the form of payment matters, when cash as opposed to equity is used the bidders experience stronger positive market reaction of 1%. In the paper they formed a sub section which examined takeovers by industry. They find that acquisitions in mining and retailing result in positive abnormal returns for the bidder while energy and services negative. Another example suggesting synergies as a motivation for M&A is Mulherin and Boone (2000). They examined restructuring activities in 59 industries during the 90’s, with a sample of 1305 firms and found that both divestitures and acquisitions resulted in value creation. Also they motivated that the wealth effect for the shareholders is directly related to relative size of the event. Additionally searched for industry patterns in the M&A activity compared to the
one of the 80’s, they motivated the increase in M&A activity in the 90’s with the major deregulation acts including the Telecommunication act from 1996. Another paper suggesting positive abnormal returns for the bidder is Asquith et al (1983). They examine market reaction to bidder share price after acquisition announcement and find that bidders achieve positive abnormal returns of 2.8% statistically significant at 1% level. They also find that the reaction for the bidder is related to the size of the target. Chang (1998) examines the returns for the bidder after a M&A announcement by comparing privately held target against public one. Results suggest overbidding by the acquirer which corresponds in negative abnormal returns for deals with public targets compared to positive and significant returns for private deals. Additionally they motivated that bidder firms gain from acquisition by constructing a sub sample with only successful bids. The successful bids gained 4% excess abnormal returns compared to unsuccessful bids. This further supports the hypothesis that bidders gain from M&A. An example suggesting synergies as the motive for M&A is the study of Marynova and Renneboog (2011) which finds that returns for targets in UK substantially exceeded those in European cross-border deals. In that study, the presence of a large shareholder in the bidding firm triggered positive abnormal returns for UK bidders and negative one for EU bidder. An interesting finding from the research is that for event windows of +5 days diversification motive destroys value for the bidders. This finding is in align with the one of Morck, Shleifer and Vishney (1990) who state that the diversification effect is associated with entrenchment and value destruction.

2.1.2 Non-value enhancing theories for M&A

The previous publications suggested positive share price reaction for the bidder and for the target when M&A announcement takes place, in the following sub-section non-value enhancing motives are discussed. Andrade et al (2010) finds that insignificant returns for the acquirer in a short period and negative in long periods. They also observed that targets tend to take all the benefits from the M&A for themselves, observing close to zero abnormal returns for the bidder. Authors are skeptical regarding managerial motives as explanation to bidder underperformance but still they cannot explain the high abnormal returns for the targets and the low close to zero for the bidder.

Non-synergistic hypothesis find support in other relevant for this paper work. According to Shleifer and Vishny (1989) M&A can be used by managers in their own interest instead of the best interest of the shareholders which they should represent. M&A are form of
investment which could make the corporation more sophisticated, resulting in inability to replace managers. Also they suggested that we can anticipate managers in declining industries to initiate M&A activities beyond the level of value maximization. Jensen (1996) suggests that free cash flow as opposed to debt can stimulate managers to make value destroying acquisitions. Diversification as a tool to make an M&A can benefit shareholders if managers utilize excess resources in the company; However conglomerate strategy can be used by managers to gain perquisites and entrench themselves in the organization (Morck, Shleifer and Vishney, 1990). The hypothesis that diversification firms trade at a discount found support in the paper of Limmack (2003). He suggests that a motivation for the discount is managerial interest for growth and risk reduction. An example from bank mergers showed that diversification acquisitions destroy value for the bidder (Cornett et al 2003). They use a sample of banks taking part in diversifying acquisitions compared to one in closely related industry. Result suggested that significantly different industries destroy shareholder value. If the following motive is dominant we would expect negative share price reaction for the bidder when an announcement of a M&A takes place.

2.2 Shareholder wealth effect of conglomerate and non-conglomerate M&A

I will split my sample of M&A deals to examine shareholder wealth effect of industry diversification compared to non-diversifying acquisitions. Non-conglomerate acquisitions are those where both the target and the acquirer have SIC 48**, while conglomerate acquisitions in telecommunication industry are those where only the acquirer has a 48** SIC code.

Montgomery (1994) provides classification of the diversification motives. The first set of motives is based on market power; it views diversification strategy as a tool to exploit conglomerate power. The exercise of conglomerate power through cross-subsidization of excess cash flow in one business to another, results in predation on competitors. This strategy is also known as “having deep pockets”. If markets anticipate such strategy as potentially successful, we would observe a positive share price reaction after the announcement. Another possible reason for anticipating in diversification mergers is based on resource utilization, which suggests that rent seeking firms diversify in as a response to excess capacity. A single operator is in a better position to dimension and plan the construction of the network (technical efficiency) and to avoid duplications of investments and excess capacity. Thereby economies of scale can be fully utilized to the benefit of all customers. In addition, a single network operator can better ensure compatibility of all parts of the network, and technical and
administrative costs related to network integration and interconnection can be minimized. Matsusaka (1993) examines corporate takeovers during and after the conglomerate merger wave of the late 1960. The main finding of this paper is that conglomerate acquisitions are beneficial for the shareholders and suggests that M&A was not driven by managerial objectives. He motivates that markets penalize acquisitions resulting in disciplinary actions against the target managers. An industry specific example is the paper of Rieck and Doan (2009). They investigate the shareholder wealth effect in the telecom industry after an acquisition announcement and specifically the effect of service diversification strategy and international diversification strategy. They find cumulative abnormal returns for the acquirer participating in conglomerate acquisitions of 1.76% statistically significant at 5% level and weekly support the hypothesis that non-conglomerate deals create value for the acquirer, cumulative abnormal returns are 1.47 statistically significant at 10% level. Additionally they find support for the hypothesis that cross-border acquisitions in the telecommunication industry add shareholder value for the acquirer cumulative abnormal returns. For cross-border deals CAAR are equal to1.8% statistically significant at 1% level. Another paper investigating market reaction to M&A in the same industry is Rieck (2002) his work suggests synergies as a motivation for M&A. The results suggest that acquisitions are driven by economies of scale and scope. The paper also concluded that cross-border non-conglomerate acquisitions added significantly higher returns compared to the domestic conglomerate.

3. Hypothesis Development

My main research question is: What was the effect of M&A announcements on shareholder wealth in the telecommunication industry for the period 01.01.2002-31.12.2013, and how do these results compare to those in similar studies from different time periods?

The shareholder wealth effect is widely observed in corporate finance. However M&A in specific industries are not extensively researched. This allows me to examine M&A announcement events new to the research community. As discussed in the previous chapter M&A can be motivated from synergies or from managerial incentives in either case we would expect that the returns for the targets are significantly higher than zero. (Mulherin and Boone). (Morck, Shleifer and Vishney, 1990).

In the light of the above statement I form the following hypothesis:
**Hypothesis 1a):** Stock markets react positively to M&A announcement activity in telecommunication industry for the targets.

The market reaction for the bidder is unclear. In the literature we can find evidence pointing positive, negative and insignificant equal to zero abnormal returns for the bidder. (Andrade et al 2010). The industry specific papers in the field also cannot suggest with confidence what the bidder reaction will be. Park et al (2002) suggests negative reaction while Rieck and Doan (2009) find positive returns for the bidders. I consider that for this research the last mentioned publication is more relevant than Park et al (2002) as the sample used there is geographically limited to Asia. In the light of the previous findings the following hypothesis can be formed:

**Hypothesis 1b):** Stock markets react positively to M&A announcement activity in telecommunication industry for the bidders.

In this paper I would like to examine the wealth effect for European acquirers. The geographical scope can give an additional knowledge and outline factors specific for the companies operating on the continent. Additionally telecommunication industry is characterized as an oligopoly where national regulation plays an important role on the value created by the companies in the sector. As Marynova and Renneboog (2011) find positive and statistical significant abnormal returns for the targets and the acquirers during the 5th takeover wave. I would expect that trend to continue for the period of my study.

**Hypothesis 2a: Stock markets react positively to targets share price when there is conglomerate M&A announcement in telecommunication industry and when the acquirer is European.**

**Hypothesis 2b: Stock markets react positively to bidders share price when there is conglomerate M&A announcement in telecommunication industry and when the acquirer is European.**

**Hypothesis 2c: Stock markets react positively to targets share price when there is non-conglomerate M&A announcement in telecommunication industry and when the acquirer is European.**
Hypothesis 2d: Stock markets react positively to bidder share price when there is non-conglomerate M&A announcement in telecommunication industry and when the acquirer is European.

Here I will discuss the anticipated market reaction after M&A announcement in Telecommunication industry for the conglomerate and non-conglomerate deals. We can find support in the literature for the hypothesis that conglomerate mergers create value (Matsusaka 1993) as well as that they are associated with management entrenchment and value destruction (Chang, 1998). The industry specific example of Rieck and Doan (2009) finds positive and statistically significant market reaction for the bidders that take part in conglomerate M&A. This allows me to form the following hypothesis:

Hypothesis 3a: Stock markets react positively to target share price when there is conglomerate M&A announcement in telecommunication industry and when the acquirer is international.

Hypothesis 3b: Stock markets react positively to bidders share price when there is conglomerate M&A announcement in telecommunication industry and when the acquirer is international.

Hypothesis 3c: Stock markets react positively to target share price when there is non-conglomerate M&A announcement in telecommunication industry and when the acquirer is international.

Hypothesis 3d: Stock markets react positively to bidder share price when there is non-conglomerate M&A announcement in telecommunication industry and when the acquirer is international.

4. Research Methodology and sample selection

In order to compute the shareholder wealth effect after acquisition announcement I use event study, specifically I will follow MacKinlay, (1997). While using the event study methodology I first defined the event of interest and the event window size, and then the estimation window. In the following step I subtract the predicted returns from the actually observed ones and finally test for significance.
First, I identify the event of interest as the M&A announcement date, and then formulated the event window. The event of interest is the wealth effect for shareholders in telecommunication industry after acquisition announcement. I assume that markets are semi-strong form efficient, which means that they incorporate all publicly available information immediately and that there is opportunity to achieve abnormal earnings if one has inside information.

In this study Thomson Reuters Global Telecommunication service price index was used. In order to predict a “normal” return during the event window the benchmark is established for each individual stock. The benchmark is created by using OLS regression for the period of 120 days starting 11 days before the event of interest MacKinly (1997).

\[ R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \]

Where
\[ R_{it} \]: Realized returns of share i at time t
\[ R_{mt} \]: realized returns from the Thomson Reuters Global Telecommunication service price index
\[ \varepsilon_{it} \]: zero mean disturbance term
\[ \alpha_i, \beta_i \]: parameters of the regression equation

**Fig. 1. Estimation and event window on a timeline.**

\[ T_1 = -131 \quad T_2 = -11 \quad t_1 \quad 0 \quad t_2 \]

Estimation window in this research is defined as 120 business days starting 11 days before the event of interest. The Event of interest is the mergers and acquisition announcement; respectively the event windows should accumulate all relevant information about the event of interest. On one hand using long event windows of 60+ days could capture more accurately the share price change as a result of the event. However it is also possible to
unintentionally include the market reaction by other factors (earnings announcements, stock splits and others). This could lead to misrepresentation; furthermore a key assumption of the event study model is that markets incorporate quickly all relevant information (semi-strong form efficient) as a result of the upper statement I used short event windows of +2 days \( (t_1 = -2, t_1 = +2) \) for the entire sample and +10 days \( (t_1 = -10, t_1 = +10) \) for each individual subsample.

After estimating the coefficient \( (\alpha_i \text{ and } \beta_i) \) from the Ordinary least squares regression described above I can compute \( AR_{it} \) for the event of interest.

\[
AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}
\]

\( R_{it} \): Realized returns of share \( i \) at time \( t \)

\( R_{mt} \): realized returns from Thomson Reuters Global Telecommunication service price index

\( \hat{\alpha}_i \), \( \hat{\beta}_i \): are ordinary least square estimates of \( \alpha_i \) and \( \beta_i \)

The abnormal returns are estimated for the announcement date (date 0) and the event window size +/- 10 days before and after the announcement.

The Cumulative abnormal returns \( CAR_i \), is the sum of the abnormal returns for the individual stock during the event window period:

\[
CAR_i = \sum_{t=2}^{t_1} AR_{it}
\]

Cumulative average abnormal returns \( CAAR \) measure the average effect across the full sample of observations:

\[
CAAR = \frac{\sum_{i=1}^{12} CAR_i}{12}
\]

Typical for the methodology used in this research is to assume semi-strong form market efficiency. Weak form market efficiency states that past performance is indicative for future performance and value can be created using past share price information. The strong form states that markets are so efficient that even with inside information one cannot derive benefit. Currently both weak and strong forms fail to find empirical support. The semi-strong
form of market efficiency assumed in this research, states that markets react to new information almost instantaneously, but it is possible to derive value from inside information. If the following is true than we can expect that the impact of the publicly announced M&A can be captured by the AR measurement.

In my paper I followed Jong and Goeij (2011) when building the test for statistical significance. The null hypothesis states that the cumulative average abnormal returns for the event period are not different than zero:

$$H_0: E(CAR_t)=0$$

This hypothesis can be tested by first computing the variance of the sample and then computing the T-test.

$$S = \sqrt{\frac{1}{1-N} \sum_{i=1}^{N} [CAR_i - CAAR]^2}$$

S is the standard deviation and N is the number of observation in the sample.

$$T_{S_2} = \sqrt{N} \frac{CAAR}{S} \approx N(0,1).$$

In this paper I use an estimation window with size of 120 days before the event window. The size of the event window has direct impact on the robustness of the research. On one hand using longer event windows will capture more of the M&A announcement on the share price. However longer event windows also allow the researcher to capture other effects and as a result of that incorrectly reject or accept the null hypothesis. In this study, I use an event window of +/-2 days for the entire sample and +/-10 days for the subsamples. These windows allow me to present accurately the effect of the event (M&A announcement) and are consistent with the literature. An examination of 500 published event studies in academic press revealed that short-term event studies deliver quite reliable results while long-term event-studies underlie some serious limitations (Kothari and Warner 2004).

In this research SDC platinum is used to form the sample of M&A. For the non-conglomerate deals both the target and the acquirer must have SIC 4841, 4899, 4832, 4812, 4822, 4813 and 4833. For the conglomerate deals the acquirer is from the telecom industry, an
additional constrain is added that the target must not have SIC 4841, 4899, 4832, 4812, 4822, 4813, and 4833.\(^2\)

**Table 1**  This table presents SIC codes with description of the industry included in the sample

<table>
<thead>
<tr>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4812</td>
<td>RADIOTELEPHONE COMMUNICATIONS</td>
</tr>
<tr>
<td>4813</td>
<td>TELEPHONE COMMUNICATIONS (NO RADIOTELEPHONE)</td>
</tr>
<tr>
<td>4822</td>
<td>TELEGRAPH &amp; OTHER MESSAGE COMMUNICATIONS</td>
</tr>
<tr>
<td>4832</td>
<td>RADIO BROADCASTING STATIONS</td>
</tr>
<tr>
<td>4833</td>
<td>TELEVISION BROADCASTING STATIONS</td>
</tr>
<tr>
<td>4841</td>
<td>CABLE &amp; OTHER PAY TELEVISION SERVICES</td>
</tr>
<tr>
<td>4899</td>
<td>COMMUNICATIONS SERVICES, NEC</td>
</tr>
</tbody>
</table>

Also two subsamples are studied one with only European acquirers and an international one. Both the target and the acquirer must be publicly traded companies. Only completed and unconditional deals were included in the sample. An additional restriction on the deal value is included - no deals with value of less than one million are included in the sample. In order to minimize the noise in the sample I exclude minority share buy backs management buyouts and company privatizations was added.

Although it is possible to have a controlling share stake with less than 50% only acquisition after which the company had a controlling stake of minimum 50% were included.\(^3\)

Acquisitions of the remaining shares are not included in the sample. In order to prevent clustering from the sample only deals where no other M&A activity for the past 200 days has happened were included. The final constraint was that share price data should be available from Thomson Reuter’s database.

5. Empirical results

**Table 1. Abnormal returns for World M&A in telecommunications (complete sample).**

_Hypothesis 1a, 1b._

This table presents the results for the bidder and the target CAAR. In column A is the variable subject of interest and whether the hypothesis is rejected or confirmed, column B presents the number of observations used to compute CAAR, column D presents the T-test of the returns, where statistical significance at 1%, 5%, 10% interval is illustrated with ***, **, *_. Column E presents the event window size used in the sample. To visualize the effect on the Hypothesis developed in the previous chapter an arrow and bold font is used.

\(^2\) According to Rieck and Doan having a SIC code with first two numbers 48** is sufficient to include the sub industry into the telecommunication sample.

\(^3\) Similar restriction is used in the literature.
Hypothesis 1a states that stock markets react positively to targets share price when a M&A announcement occurs. From the complete sample of 296 targets we can observe positive and statistically significant at 1% level CAAR = 12.1%. As a result of that we can accept Hypothesis 1a.

Hypothesis 1b states that M&A in telecommunication industry creates value for the acquirer. We can observe positive CAAR of 1.46% statistically significant at the 5 percent level. As a result, we can also accept hypothesis 1b.

Positive abnormal returns for both the acquirer and the target suggest synergies as primary motivation for M&A in telecommunication industry. The findings of this paper are consistent with Marynova and Renneboog (2011), who use a sample of European deals and find positive abnormal returns of 9.13% for the targets and 0.53 % for the bidders. The findings are consistent with Rieck and Doan (2009). They use a sample of 88 international acquisitions in telecommunication industry for the period 1998-2006 and they find positive abnormal returns of 2.234 % statistically significant at 5% level, compared to a much larger sample used in my paper of 274 acquirers and 296 targets. As the sample selection is described in following chapter Rieck and Doan (2009) focused on a single digit SIC code when referring to non-conglomerate M&A, as industry while I see all deals with codes 48** as non-conglomerate. This allows me to show broader picture of the industry I am examining. Also I have excluded the bubble period in telecommunication industry from 1999 to 2000, this add value to my research because market rationality is assumed in the market model.

Telecommunication industry M&A in Europe

Table 2 Abnormal returns for European M&A in telecommunications, Hypothesis 2a, 2b, 2c

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{World Targets} )</td>
<td>Ne Observations</td>
<td>CAAR</td>
<td>TSTAT</td>
<td>Event window in days</td>
</tr>
<tr>
<td>World Targets</td>
<td>296</td>
<td>12.1%***</td>
<td>7.65</td>
<td>-/+10</td>
</tr>
<tr>
<td>( \rightarrow \text{Hypothesis 1a confirmed} )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Acquirers</td>
<td>274</td>
<td>(1.46%)**</td>
<td>2.23</td>
<td>-/+2</td>
</tr>
<tr>
<td>( \rightarrow \text{Hypothesis 1b confirmed} )</td>
<td></td>
<td></td>
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</tbody>
</table>

This table presents the shareholder wealth effect for deals with European bidder. In column A is the variable subject of interest and whether the hypothesis is rejected or confirmed, column B presents the number of observations used to compute CAAR, column D presents the T-test of the returns, where statistical significance at 1%, 5%, 10% interval is illustrated with ***, **, *. Column E presents the event window size used in the sample. To visualize the effect on the Hypothesis developed in the previous chapter an arrow and bold font is used.

\(^4\) Statistical significance at 1%, 5%, 10% interval is illustrated with ***, **, *.
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conglomerate Eu Targres CAAR</td>
<td>36</td>
<td>8.50%***</td>
<td>3.43</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 2a) confirmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conglomerate Eu Acquirers CAAR</td>
<td>35</td>
<td>(1.11%)</td>
<td>(.77)</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 2b) rejected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-conglomerate Eu targets CAAR</td>
<td>49</td>
<td>9.45%**</td>
<td>2.58</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 2c) confirmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-conglomerate Eu acq CAAR</td>
<td>50</td>
<td>1.43%</td>
<td>.800</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 2d) rejected</td>
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</table>

Hypothesis 2a) states that conglomerate deals create value for the target when the deal is in Europe. The sample consists of 36 observations shows Cumulative average abnormal returns of 8.5% statistically significant at 1% level. Consequently we can confirm that hypothesis.

Hypothesis 2b) states that conglomerate deals create value for the acquirers when the deals are with European acquirer. The sample consists of 35 observations and shows 1.1% abnormal returns statistically insignificant. The value of significance tests indicates that the returns are not different from zero. As a result of that the null hypothesis cannot be rejected.

Hypothesis 2c) states that non-conglomerate deals create value for the acquirers when the deals are with European acquirer. The sample consists of 49 observations and shows 9.45% abnormal returns statistically significant at the 5% level. This allows us to accept that hypothesis.

Statistically insignificant coefficient for the acquirers are consistent even in large samples Mulherin and Boone (2000) find insignificant CAAR= -0.37 for acquirers with a sample of 1305 observations. Fuller et. al (2002) uses a sample of 3125 deals and finds CAAR for the acquirers of 1.77 statistically insignificant. Lang et al (1989) examines tender offers in US with sample of 87 deals he find no significant effect for the acquirers. All of the papers used short event windows. Rennboog and Groer (2004) use a European sample of Large acquirers with 187 observations and find statistically insignificant CAAR=-0.48%. My insignificant findings for European deals in telecommunication industry are consistent with the previous literature conclusions about the effect of the transaction on the bidder returns. To summarize it is not clear whether the effect from the acquisition results in positive negative or insignificant, equal to zero returns for the acquirer. However a large supportive literature previous papers that the effect from an acquisition on the share price of the bidder is small from 0 to +2%.

The results for the targets are consistent with large set of literature it is expected that CAAR for the targets will be much higher compared to the one for the acquirers.
Hypothesis 2d) states that non-conglomerate deals create value for the targets when the deal has a European acquirer. The sample consists of 49 observations and shows 9.45% abnormal returns statistically significant at the 5% level. This result allows us to accept that hypothesis.

Table 3 Abnormal returns for World M&A in telecommunications, Hypothesis 3a, 3b, 3c
This table presents the shareholder wealth effect for deals with European bidder. In column A is the variable subject of interest and whether the hypothesis is rejected or confirmed, column B presents the number of observations used to compute CAAR, column D presents the T-test of the returns, where statistical significance at 1%, 5%, 10% interval is illustrated with ***, **, *. Column E presents the event window size used in the sample

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conglomerate world targets CAAR</td>
<td>135</td>
<td>14.6%***</td>
<td>6.25</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 3a confirmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conglomerate world acquirers CAAR</td>
<td>130</td>
<td>2.13%**</td>
<td>2.22</td>
<td>-/+2</td>
</tr>
<tr>
<td>-&gt;Hypothesis 3b confirmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-conglomerate targets CAAR</td>
<td>161</td>
<td>9.73%***</td>
<td>4.47</td>
<td>-/+10</td>
</tr>
<tr>
<td>-&gt;Hypothesis 3c confirmed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-conglomerate acquirers World</td>
<td>144</td>
<td>0.08%</td>
<td>1.56</td>
<td>-/+2</td>
</tr>
<tr>
<td>-&gt;Hypothesis 3d rejected</td>
<td></td>
<td></td>
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</tbody>
</table>

Hypothesis 3a) states that conglomerate M&A in the world should create value for the targets. As a result of the positive and statistically significant at 1% level CAAR= 14.6% for the conglomerate targets deals we can confirm hypothesis 3a and reject the null hypothesis.

Hypothesis 3b) states that conglomerate M&A in telecommunication industry create value for the acquirers. Results show statistically significant at 5% level positive abnormal returns of 2.13%. This allows us to reject the null hypothesis and accept hypothesis 3c. Marynova and Renneboog (2011) examine industry relatedness and the effect on value creation. They have found that industry related takeovers tend to create value for the acquirer +1.43% while diversification takeovers tend to destroy one with almost the same amount -1.41%. An industry specific example suggesting that diversification destroys value is Park et. al (2002). They use a sample of only 42 observations and find negative share price reaction for the bidders. These results are not consistent with my findings. However I have examined a specific industry in different time frame. I find consistency between my results and the paper from Matsusaka (1993). He uses “dollar return “as a measure of abnormal performance and finds positive market reaction for the
acquirers participating in conglomerate acquisitions. Also he finds that replacement of the management after the acquisition takes place destroys value for the shareholders. Possible explanation of the positive abnormal returns for conglomerate acquisitions in my paper is the absent of growth opportunities within the sector after the dotcom bubble burst 2000 or the rise in product complexity allowing mergers between previous unrelated industries to create unique products.

Hypothesis 3c) states that non-conglomerate acquisitions create value for the targets. Results show positive statistically significant at 1% level CAAR=9.73%. Consequently we can reject the null and accept hypothesis 3c).

Hypothesis 3d) states that non-conglomerate M&A in telecommunication industry create value for the acquirers. Results show weekly insignificant positive abnormal returns of 0.08%. As a result of the above stated hypothesis 3d is rejected.

6. Conclusion Discussion and Limitations.

In this final chapter my results are summarized and explained in the conclusion section, additionally in the discussion section suggestions for future research are presented, in the next section the limitation of this research are presented.

6.1. Conclusion

This paper investigates shareholder wealth effect of M&A in Telecommunication industry for the period 2002-2013. It shows that M&A triggers significant positive reaction for both the target (12.1%) and for the bidder (1.46%). Results are consistent with previous event studies in examining that the M&A announcement in telecommunications leads to significant gains for the market values of both the target and the acquirer. Therefore we can conclude that the markets have positive reaction with regards to potential telecom companies to add value in the sector. Telecommunication market is characterized as oligopoly with high fixed costs and relatively low marginal costs. This gives the market confidence that the potential economies of scale and scope will be realized and the synergies from the merger can be incorporated in the price of the new company immediately. Additionally the wealth effect for conglomerate and non-conglomerate deals is investigated. Results showed positive and significant share price reaction for conglomerate acquirers of (2.13%) compared to economically and statistically insignificant reaction for the non-conglomerate acquirers of (0.08%). A possible explanation for the positive returns associated with diversification could
be the absent of growth opportunities in the sector after the dot com bubble burst compared to other industries. A separate sample investigates market reaction to deals with European acquirer, positive share price reaction is found for the targets but all coefficients for the acquirers are insignificant. Overall the European acquirers have abnormal returns of zero compared to positive and significant wealth effect for the entire sample of international bidders.

6.2 Discussion

An opportunity for future research is to explain the different performance of European acquirers with factors affecting the valuation. Some of the factors suggested in the literature can be size of the target and the acquirer, deal structure or the legal system where they operate. (Marynova and Reneboog, 2011 ). Additionally this thesis can be a stepping stone for future research as to compare the impact of deregulation acts in Europe and the rest of the world on the M&A success.

Another possibility for deeper research is to investigate the diversification process in telecommunication industry and in specific the industries where acquisition results in value creation.

6.3. Limitations

Empirical work is subject to limitations and this study is not an exception. Here I will mention factors that limit the scope and the robustness of the research. In this paper I formed my sample using standard SIC code industry classification including all 48** as telecommunication companies. This classification includes big enterprises with multiple SIC codes which could be an issue for this as the industry classification does not control for size. Additionally Internet suppliers with SIC 72** were excluded from the sample of non-conglomerate acquisitions and could enter in the conglomerate sample. This could lead to misrepresentation as it makes economical sense Cable operators (4841) to merge with internet suppliers (737*) and form new products instead as a way of diversification from one industry to another. This puts in doubt the two dimensional categorization of (non-conglomerate vs conglomerate acquisitions) as suitable for a fast developing and innovative sectors like telecommunication.

Regarding the European acquisitions as in other empirical studies quality and relevant data lacks. In order to find robust results regarding the market reaction of the bidders one must construct bigger sample or to increase the event window and allow unnecessary noise.
7. Reference list

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