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Graduate School of Management

Master in Corporate Finance Program

**RELATION OF THE CHARACTERISTICS OF CEO AND MARKET PREMIUM IN M&A DEALS**

Master’s Thesis by the 2nd year student

Concentration – Master in Corporate Finance

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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ

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| Описание цели, задач и основных результатов | Целью данной работы выступает определение взаимосвязи между различными характеристиками генеральных директоров компании-продавца и компании-покупателя и уплаченной премией в сделках слияния и поглощения. Для достижения поставленной цели нами были изучены теоретические основы сделок слияния и поглощения, проанализированы основные мотивы их заключения, выявлены факторы, оказывающие влияние на размер уплаченной премии, рассмотрены основные характеристики генеральных директоров компании-покупателя и компании-продавца. Эмпирическая часть работы включает в себя эконометрическое исследование по базе сделок, заключенных в США с 2005 по 2015 годы. По результатам исследования было подтверждено наличие положительной взаимосвязи между размером уплаченной премии и приведенной стоимостью синергии от сделки; операционной эффективностью компании-покупателя; уровнем долга компании-продавца. Отрицательная взаимосвязь была определена между размером премии и относительным размером сделки; уровнем долга компании-покупателя.Что касается характеристик генерального директора, была установлена отрицательная взаимосвязь между занятостью генерального директора компании-покупателя и размером премии. Также было установлено, что размер премии в сделках, где генеральный директор компании-продавца получает позицию в новообразованной компании меньше по сравнению со сделками, где генеральный директор компании-продавца не получает новой должности. |
| Ключевые слова | Премия, сделка по слияниям и поглощениям, слияния и поглощения, генеральный директор, занятость, структура заработной платы |

**ABSTRACT**

|  |  |
| --- | --- |
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| Master Thesis Title | “Relation of the characteristics of CEO and market premium in M&A deals” |
| Faculty | Graduate school of management  |
| Main field of study | 080200 “Management” (specialization: Master of Corporate Finance) |
| Year | 2017 |
| Academic Advisor’s Name | Irina V. Berezinets, PhD in Physico-mathematical sciences, Associate Professor |
| Description of the goal, task and main results | The research goal of this paper is to define the relationship between different CEO characteristics and premium paid in M&A deals. In order to reach this goal, the theoretical backgrounds of M&A deals were researched, main motivations for conducting the deal were analyzed. Moreover, main factors that influence the size of the premium were identified. Apart from this, different characteristics of CEOs of both acquirer and target companies were considered. The empirical part of this work includes econometric analysis on the basis of sample of M&A deals conducted in the US in time period from 2005 to 2015.The research results have confirmed the existence of positive relationship between the premium and present value of expected synergy; operational efficiency of acquiring company; debt load level of target company. Negative relationship was identified between the premium and relative deal size; leverage of the acquirer.As for CEO characteristics, the existence of negative relationship between the busyness of acquirer CEO and premium was confirmed. Moreover, it was confirmed that size of the premium is less when target CEO is retained in the combined company in comparison to opposite situation. |
| Keywords | Premium, M&A deal, M&A, CEO, busyness, managerial compensation, retention |

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# INTRODUCTION

Conducting M&A deals has become one of the main driving forces for economic growth. not only in developed countries but also worldwide. The corporate world has just left the peak of the 7th merger wave with 4,8 trln. US$ of deal value in 2015. Although, the M&A activity has slowed down in 2016 and reached only 3,56 trln. US $ by value, the number of M&A deals still continues to rise. Thus, the importance of M&A deals for modern economy cannot be undervalued.

“Mega” deals tend to be the main driver of value growth in M&A deals. We understand “mega” deals as deals with a value of not less than 1 bln. US $. The number of deals with a value of less than 1 bln. US $ has shown just a slight increase of 4,1% from 2015 to 2016, whereas the number of deals with a deal value of not less than 10 bln. US $ has shown a higher growth rate: from 45 73 deals in just one year of 2016. The total number of “mega” deals has shown an increase from 556 to 662, a growth of 19 percent. It is also noteworthy that the major value of deals is captured by the deals conducted in the USA.

The motivations for mergers and acquisitions generally differ depending on the industry, historical period and many other factors. However, the recent merger wave is mainly driven by by the trend of reorganization around growth regions, increase of cross-border operations and tax optimization activities. Other factors also include the great amounts of cash held by American companies as well as the need to transform business portfolios (Cretin, 2015).

Typically, the large deal value can be explained by high premiums paid by an acquiring company. Numerous motivations for paying high premiums are discussed in academic literature. The most common tend to be cost savings and potential revenue enhancements (Sherman, 2006; Reed, 2007). According to neoclassical theory, potential synergies are considered to be the main factor influencing the premium size.

However, the results of research conducted by Dutordoir have shown that in majority of deals the estimated synergies turned out to be less than the premium paid (Dutordoir et al., 2010). This fact leads us to the conclusion that there are other major factors that lead to high premium payments. For instance, Slusky and Caves believe that opportunistic behavior of the acquirer’s management team leads to overpayment (Slusky and Caves, 1991). Ismail, in his turn, assumes that conviction of target shareholders to conduct the deal can give the motivation for paying high premium (Ismail, 2011).

The performance of mergers and acquisitions depends not only on such economic factors as economic cycles, merger waves and potential synergies, but also on such non-economic factor as personal gain of top-managers of companies, participating in M&A deals. In different research works it was proved that the CEO compensation in a target company is connected with the results of a deal. For instance, Datta et al. (2001) point at positive relation between acquirer managers' equity-based compensation and acquirer stock returns before and after the acquisition announcement. Grinstein and Hribar (2004) document, that large bonuses paid to acquirer CEO are positively related to the deal size. Also Ahmad Ismail (2011) considers how the CEO compenstaion and its structure influence the welfare of the shareholders.

From the point of view of the target company, Song and Walkling (1993) and Stulz et al. (1990) show positive relation between stock ownership of target CEO and stock returns of this company.

In research papers attention is also paid to the influence of the CEO intellectual capital on the market premium in M&A deals. In this context, intellectual capital can include education, work experience, network centrality etc. The relation between different elements of intellectual capital and company performance was considered in several articles.

Cashman et al. (2012) state that the business of the directors negatively influences the value of the company. Benson et al. (2015), in their turn, show, that busy CEOs of acquirer companies lead to lower premiums in M&A deals. King et al.(2016) have shown, on the example of banks, that banks managed by directors with MBA overcome their peers. El-Khatib et al. (2015) consider how CEO network centrality influences the outcomes of M&A deals.

Therefore, the proposed research topic for master thesis is of great research interest. Although, the relationship between the CEO characteristics and company performance is considered in many works, the question of how different CEO characteristics are related to the size of market premium in M&A deals is not researched to the full extent.

Thus, the object of our study are M&A deals conducted in the USA in years 2005-2016. The subject is the relationship between the CEO characteristics and premium paid.

The research goal of the paper is to determine the relationship between different characteristics of CEO of both acquirer and target companies and market premium in M&A deals.

The research goal will be achieved by completing the the following objectives:

* To set the reasons of appearance of the market premium in M&A deals;
* To find out main considered characteristics of CEO;
* To define the relationship between different characteristics of CEO and the size of paid premium;
* To conduct empirical research in order to find out the relationship between the characteristics of CEO and the size of market premium;
* To conduct the analysis of obtained results and to provide managerial recommendations based on these results.

This master thesis includes theoretical as well as empirical research parts.

The following information sources were used for the theoretical part of this master thesis: academic articles on motivations for M&A deals, on factors influencing the price in M&A deals, on various drivers of premium paid, on different CEO characteristics influencing the deal and the premium paid; specialized periodical journals; analytical reports.

For the purpose of conducting empirical analysis, Thomson Reuters Eikon as well as Zephyr databases were used. As the major part of data was hand-collected, company reports from the website of the Security Exchange Commission (DEF 14A, DEF14, 8-K, S-4 and 10-K reports) as well as reports published on official websites of companies were also used for data collection.

We have used the following paper structure in order to complete our objectives and complete our goals. In the first chapter the general aspects of M&A deals are presented: notions of merger and acquisition, classification of deals, deal procedure etc. Apart from this, in this chapter we describe factors influencing price and premium in deals, analyze main motivations for conducting a deal and describe the role of corporate governance and CEO in particularly in a deal.

The second chapter is devoted to CEO characteristics of acquirer and target companies. We describe the structure of CEO compensation, describe the components of his human capital. human capital and its components. The hypotheses for further research are also formulated in the second chapter.

The third chapter represents our empirical research. We firstly describe the research methodology used, followed by the sample selection process as well as descriptive statistics. We have selected deals conducted in the USA from 2005 to 2016, that fulfill several key conditions: disclosed value of deals is more than $3 bln., deals have to result in a transfer of control such that the acquirer’s ownership increases to more than 50% as a result of acquisition. Furthermore, results of the econometric analysis are discussed and main findings are stated. As the conclusion of the chapter, developed managerial recommendations are announced.

# CHAPTER 1. MAIN MOTIVATIONS FOR CONDUCTING M&A DEALS AND PAYING HIGH PREMIUMS

## 1.1. Theoretical backgrounds of the M&A process

The first chapter of the paper will be devoted to the theoretical background of M&A concept. In order to get a fuller understanding of the concept, we will look into the notions of merger and acquisition, define the general procedures for deal prosecution, discuss the main parties involved into the deals. Apart from this, we will consider the motivations for conducting M&A deals as well as the main reasons of premium occurrence. As a separate point, the role of corporate governance and especially CEO in M&A deals will be investigated.

Although M&A deals are a very common practice in a corporate world, the debates among scholars concerning definitions of terms “merger” and “acquisition” still take place. In general terms, mergers and acquisitions are defined as transactions in which the ownership of the company is combined (merger) or transferred (acquisition). Some academicians do not consider “merger” and “acquisition” to be different notions. For example, P.A.Gaughan states that merger is a combination of two corporation where the “buying” corporation survives and the merged one goes out of existence. He also defines consolidation as the situation when two companies go out of existence and their shareholders become shareholders of a totally new company (Gaughan, 2007). The definition of “consolidation” by P.A.Gaughan is in line with the definition of “corporate consolidation” proposed by Reed&Lajoux (Reed&Lajoux, 2007).

Reed, Lajoux and Nesvold in “The Art of M&A” underline that acquisition means transfer of ownership from one entity to another, whereas merger is a technical term for strictly legal procedure that may or may not follow the acquisition (Reed&Lajoux, 2007). In other words, merger has nothing to do with how companies will be operated in the future after the deal. In the work by D. DePamphilis, merger is considered from legal as well as economic perspective. From a legal perspective, merger is seen as a process of combining two or more companies, in which all but one stop existing. From an economic perspective, merger is defined depending on whether the firms are in the same (horizontal) or different (conglomerate) industries and on their positions in the corporate value chain (vertical). According to DePamphilis, acquisition is a situation when one company acquires the controlling interest in another company, its legal subsidiary or selected assets (DePamphilis, 2014).

In our following work we will use the definitions based on the terminology proposed by A.J.Sherman. Under the term *merger* we will understand the process of combining two or more companies in which the assets and liabilities of the selling firm(s) are absorbed by the buying firm. The scholar underlines that although the buying company may totally change its organizational structure after the deal, it will still remain its original corporate identity.

The purchase by one company (the acquirer) the shares or assets of another company (the target) is called *acquisition* (Sherman, 2006). These definitions are in line with the definitions proposed by D. DePamphilis. An acquisition that was resisted by the board or the management team of the target company is called *hostile acquisition*. A *friendly acquisition* is described as a mutual agreement of both target and acquirer concerning the deal (Reed&Lajoux, 2007).

Although the main parties of every deal is the acquiring company and the target company, there are always external participants from both the seller and the buyer side. All of them can be divided into the following categories:

* providers of specialized services;
* regulators;
* institutional investors and lenders;
* activist investors;
* M&A arbitrageurs (DePamphilis, 2014).

The first category is the broadest one, it includes investment banks, accountants, lawyers, public relations personnel and proxy solicitors. Investment banks, as one of the most important deal advisors, have the following tasks:

* provide advice and deal opportunities;
* screen potential deal participants (acquirer and target company);
* advice on valuation and deal structuring.

Accountants help with defining financial structure, creation of optimal tax structure for the deal and perform financial due diligince. The lawyers, in their turn, help in structuring the deal, negotiate the tax and financial terms, evaluate risk and coordinate the transaction itself. Public relations companies are responsible for communicating with various stakeholders, e.g. reassuring the shareholders of the target company in hostile takeover that the management team of the acquirer company will increase the share value more than the incumbent management team can. Proxy solicitors may also play an important role in M&A deals as with their help e.g. the target company shareholders can be communicated in order to support the board.

Regulators stand for regulatory authorities that affect M&A activities. Regulations can be of general character as well as industry specific. General regulations include environmental, antitrust, employee benefits laws etc. Industry specific regulations can stand for banking laws, laws in transportation etc.

Institutional investors and lenders collect funds provided by others and pool them in order to invest or lend these funds to finance the purchase of an asset, which can be securities as well as whole companies. This category of financial intermediaries includes:

* insurance, pension and mutual funds;
* hedge, venture capital, private equity funds;
* sovereign wealth funds;
* angel investors;
* commercial banks (only as lenders).

Insurance, pension and mutual funds are the most risk averse type of intermediaries among institutional investors. They invest only in those assets or companies, which return and risk level are in line with the obligations to customers. Private equity, hedge and venture capital funds admit higher risk levels than other institutional investors and usually, as a consequence, get a higher return. The primary aim of the sovereign wealth funds is to invest foreign currency reserves accumulated by the state. Those funds are always government-backed or –sponsored. Angel investors are very wealthy people who join each other in order to pool money, share their experience and expertise and invest in a company. Although commercial banks are an important part of institutional investors and lenders, nowadays their role is mainly lending money due to legislation issues.

The category of activist investors also includes hedge funds, private equity companies, mutual funds and pension funds. Being an activist investor means not only completing the main function (investing), but also influencing the policies of companies and their corporate management. Mutual and pension funds can affect the corporate governance only if they possess substantial portfolios as in general legislative restrictions prevent those intermediaries from intervention into the company’s internal processes. Hedge funds are not so strictly regulated by the legislation, and are able to hold a substantial position in a number of companies. As the managers of hedge funds deal with large pools of capital and are very interested in higher returns of a company, they are usually able to change financial or operational strategy in order to increase shareholders’ value.

The M&A arbitrageurs “play” during the deal. Before the deal is completed and the result is unpredictable they attempt to profit on the spread between the bid and the actual stock price, which is often a little bit less than the bid. Hedge funds, acting as arbitrageurs, may attempt to accumulate a large amount of stock of the target and acquirer companies in order to influence the result of the deal completion. By “playing” with the stocks of the companies M&A arbitrageurs also provide market liquidity during transaction.

As it can be seen, many parties affect the deal. Moreover, plenty of scholars claim that industry trends as well as the market as a whole can influence the M&A activity of a company. As D.DePamphilis mentions in his work, all mergers and acquisitions in the USA have clustered into 6 merger waves. The following waves are distinguished:

1. Horizontal consolidation (1897 – 1904) – mergers mainly between competitors within one industry. The stock market crash in 1904 and the illegal types of financing ended the M&A activity;
2. Increasing concentration (1916 – 1929) – was driven by the US entry into the World War I and the following economic rise. This wave can be characterized by increased concentration within industries. The stock market crash in 1929 and the Clayton Antitrust Act ended the boom;
3. The Conglomerate Era (1965 – 1969) – companies with high P/E ratios started acquiring companies with low P/E but high growth of earnings in order to increase total earnings per share. Such trends as the higher prices of the target companies as well as the increasing leverage of conglomerates brought this wave to a close;
4. The Retrenchment Era (1981 – 1989) – plenty of hostile takeovers and leveraged buyouts. Takeovers of US firms by foreign companies became a common practice because of limited restrictions on American market, weakness of the dollar, sophisticated US technology etc. The end of this wave was caused by the slowing economy of the US as well as by the widely known LBOs’ bankruptcies;
5. The Age of the Strategic Megamerger (1992 – 1999) – IT revolution, existing deregulation issues, reduction in trade barriers boosted M&A activity further. This era ceased to exist after numerous Internet bubble bursts, the recession in the USA in 2001 and global slowing economy;
6. The Rebirth of Leverage (2003 – 2008) – increasingly accessible debt pushed the M&A activity to the extent that acquirers even tended to often overpay for target companies. Global economic and financial crisis in 2008 slowed down the escalation of this last wave.

This division of M&A activity in the USA by waves is close to the one proposed by R.F.Bruner (Bruner, 2014). However, in more recent research 7 waves are distinguished (Figure 1).

4th wave

5th wave

6th wave

7th wave

Figure 1. M&A waves in the USA. Source: Institute for Mergers, Acquisitions and Alliances

 The main reasons for escalation of M&A activity in 2015-2016 are the following:

* trend of reorganization around growth regions – many companies tend to reorganize their activities towards growth regions to the expense of mature countries;
* transformation of business portfolios;
* tax optimization – due to U.S. tax legislation it is more profitable for a company to have a subsidiary abroad;
* record amount of cash held by American companies;
* increase of cross-border operations between the USA and Europe as well as the valuation difference between these regions (Cretin,2015).

Basically during all the history of mergers and acquisitions, the main steps of conducting the deal have remained the same. Analysis of scientific literature has helped us to distinguish the following steps:

1. developing the M&A implementation plan (defining main objectives, evaluating existing resources, providing management guidance and creating a deal timetable);
2. the search process (establishing primary selection criteria – industry, transaction size, geographical area);
3. the screening process (establishing secondary selection criteria – market segment, product line, profitability, leverage degree, market share, cultural compatibility);
4. conducting first contact with target companies (discussion of value, preparation of Letter of intent);
5. negotiations (target valuation, deal structuring);
6. conducting due diligence (strategic, operational, financial and legal review);
7. developing the integration plan (e.g. choosing the integration manager);
8. closing the deal (obtaining necessary approvals, deciding on price, method of payment)
9. post-closing integration (e.g. employee retention, cultural issues)
10. post-closing analysis (analyzing if the expected synergies were met and what should be done further (DePamphilis, 2014; Sherman, 2006).

The issue of payment method usually is discussed at the step of closing the deal, however in many cases it is brought up starting from negotiations step. Generally, there are several methods of payment – cash, shares or a combination of them. The following factors of choice of payment method are distinguished: asymmetric information on the value of the acquirer shares, taxation (cash is the subject of profit tax for the target company), managerial control (shareholders are diluting their stake in the acquirer company by using shares as payment) (Ismail, Krause, 2010).

As M&A tends to be a complex procedure, that is individual for every company, various reasons for conducting the deal are described in the scientific literature. Sherman considers motivations for the deal from the perspective of seller as well as from the perspective of buyer. Moreover, he distinguishes motivations in merger and in acquisitions.

Motivations for the deal for the target are the following:

* Readiness for an exit;
* Access to the resources of the acquirer;
* Need for cost savings through economies of scale;
* Inability to compete on the market.

For the acquirer:

* Opportunity to diversify;
* Revenue enhancement;
* Cost reduction;
* Underutilized resources;
* Operational synergies;
* Pressure from investors;
* Market share increase.

When it comes to the merger motivation, a different set of objectives stands out for both parties of the deal:

* Economies of scale;
* To restructure the industry value chain;
* Increase in the production scale;
* To find additional uses to existing management talent;
* To obtain tax benefits.

In the work by DePamphilis the following reasons for the M&A deal are mentioned:

* Operating synergy;
	+ Economies of scale;
	+ Economies of scope;
* Financial synergy;
* Diversification;
* Strategic realignment;
	+ Technological change;
	+ Regulatory and political change;
* Managerial pride (hubris)
* Undervalued assets;
* Agency problems (managerialism);
* Tax considerations;
* Misevaluation;
* Market power.

This classification distinguishes more vividly managerial motivations for the deal, which will be discussed later.

So far we have discussed mainly friendly acquisitions, when the board of a target company agrees to the deal. However, hostile takeovers are gaining popularity in last years due to rise in economic confidence of companies and their will to demand higher premiums (Massoudi&Hammond, 2014). The acquisition that is opposed by target’s board of directors or its management team is called *hostile* (Reed&Lajoux, 2007). The hostile takeover may happen through hostile tender offer or through an open market purchase. Hostile tender offer assumes buying shares directly from target’s shareholders, whereas an open market purchase is done by buying shares of the target company on stock exchange (DePamphilis, 2014). In order to protect themselves from hostile takeover, potential target companies use certain types of defenses. Some of them can be applied before the deal offer (preoffer defenses), others are applicable after the offer (postoffer defenses). The most common preoffer defenses are: poison pills, shark repellents, golden parachutes. Poison pills allow shareholders to purchase target stock at a discount in order to dilute the acquirer’s shares and to make the takeover more expensive. Shark repellent mean making amendments in charter or bylaws of a target company in order to make a company unattractive for takeover. Golden parachutes, in their turn, are severance payments that are paid out to certain employees in case the change of control takes place. Apart from these strategies, a target company may sell its attractive assets or get more debt in order to become less attractive for the acquirer company.

Postoffer defenses include greenmail, white knights, Employee Stock Ownership Plans, share repurchase, corporate restructuring, litigation. Greenmail stands for an offer to an acquirer company to buy back shares of a target company at a premium price in exchange for leaving the takeover decision. The target company can also find a white knight- another bidder that will offer more favorable conditions for the target company (DePamphilis, 2014). One more interesting postoffer defense strategy is Pac-Man defense – the target company buys shares of its potential acquirer company.

There are two alternative hypotheses on the effect of takeover defense strategies on target company. Under the managerial entrenchment hypothesis, managers of a target company tend to use takeover defenses in order to protect their position or extract personal financial and non-financial (such as retention in the combined company) gains from the deal at the expense of shareholders. This hypothesis implies that takeover defense decreases the gains of target shareholders. The shareholder interest hypothesis suggests that takeover defenses can be used in order to oppose to opportunistic, unattractive bids or to gain higher premiums from acquirer company. As a result, takeover defenses would increase premiums, returns on the target stock and target shareholders’ wealth as a whole (Ertugrul, 2015).

## 1.2. Main components of the price in M&A deals

Price is considered to be one of the most important issues in M&A deals as it basically determines the value that is transferred to the acquirer in exchange for ownership of the target company. Price paid is also important for the shareholders of both companies. For instance, if the buyer company pays more than the value of the target company and potential synergies from the merger, such deal is considered to be non-beneficial for the stockholders of the acquirer (Rappaport, 1999). Thus, managers should pay great share of attention to the price they offer for the target.

The neoclassical theory defines price in M&A deals as the sum of the value of target company and the present value of synergies resulting from the deal (Davidson, 1999). Although, the actual price can be identified only by what the acquirer is actually willing to pay, there are several widely-used valuation methods for determining the value of the target company:

* Comparable company and comparable transaction method;
* Asset valuation method;
* Discounted Cash Flow method (Sherman, 2006).

Every valuation method has its own advantages and disadvantages, none of them can be considered as a perfect way to evaluate the target company.

Comparable company analysis stands for the use of performance and price data of publicly held companies in order to evaluate the target company. The valuation is conducted through the analysis of similar companies working in the same or similar industry and their market capitalization. The target company can be also valued with the method of multiples. In this case the target is compared to its peers by various multiples, such as price-to-equity, price-to-book value etc. However, this method does not reflect the growth rates of the company as well as firm specific characteristics. Moreover, industry multiples are of cyclical character and tend to be dependent on various economic conditions (Arzac, 2005). Comparable transaction analysis is conducted by identifying similar transactions that took place before the deal and calculating the price of the target on the basis of the value of these transactions. This method implies that the bidder will not pay more for the target than the comparable companies are worth or than the value of similar transaction was. The limitation of this method is that the comparison can be valuable and justified only if the companies are really comparable to the target.

The asset valuation method implies that the acquirer will not pay for the target more than it would cost the acquirer to purchase all assets of the target company. This method is suitable mostly for companies with big share of fixed assets. On the contrary, intangible assets (patents, brands, goodwill etc.) have legitimate value and it can be difficult for the target to convince acquirer that the value of intangibles is high and, as a consequence, high price should be paid. Due to these limitations, asset valuation method is assumed to be the most conservative (Damodaran, 2002).

The Discounted Cash Flow method is considered to be the most widely-used in the company valuation (Sherman, 2006). Future free cash flows of the target company are projected, discounted to the present value and summed in order to determine the value of the company. This method takes into account different company characteristics – an advantage that other methods lack. However, as the DCF method is based on many assumptions, not always the true value of the company can be calculated with its help. Both future cash flows and the discount rate should be predicted in order to make calculations. As a consequence, changes in each of these factors would influence the determined value a lot. Moreover, the growth rate of future cash flows is usually based on opinions of industry experts and reports of different rating agencies, financial companies etc. As a result, the extent of subjectivity tends to be very high (Copeland et al., 1991).

Even a harder task tends to be the assessment of present value of synergies that an acquiring company may get after completing the deal. The expected synergies are dependent on many factors: the integration of two companies, the complementarity of the acquirer and the target, the general state of the market etc. As a consequence, the estimation of the present value of synergies tends to be a hard mission and usually all the valuations are subjective and differ depending on the analyst that conducts the valuation. Arzac (Arzac, 2005) distinguishes the following main reasons, due to which the valuation of a target company may differ:

* usage of different valuation methods by management of target and acquirer companies;
* different expectations of synergies by management of target and acquirer companies.

In the majority of cases all the valuation methods considered before are used by the companies. This approach leads to the situation when a target company does not have one exact value, but is a subject to a range of values (Copeland et al, 1991). The acquirer stands for the lowest price from the range, whereas the target wants to get the highest possible price. That is why it is highly essential that the valuations of target and acquirer meet at some agreement point. Otherwise, a deal cannot be completed.

The difference between the price paid and the market value of a target company is called *premium*. Neoclassical theory considers expected synergies to be the main factor, that influences the premium size (Nielsen and Melicher, 1973).

Certainly, the method of payment is one of the essential deal aspects that should be considered. Usually a method of payment involves a balance between business needs and tax issues (Sherman and Hart, 2006). Academic literature offers many classifications of payment methods in M&A deals. The following methods are widely used in corporate practice:

1. cash – the whole payment is proceeded in cash;
2. debt – if the creditworthiness of the acquirer is high, the target may accept promissory notes as payment;
3. stock – the securities of the acquirer may account for a part of or for a whole payment;
4. mixed – the payment is done in a mix of stock and cash (Sherman and Hart, 2006; Reed, 2007).

## 1.3. Motivations for premium payment in M&A deals

A merger premium exists in a situation when the cash or/and securities received by common shareholders of a target company have greater value than the premerger value of their shares (Ismail, 2011).

As it was stated above, the expected synergies tend to be the most widely accepted motivation for conducting a deal as well as for paying the premium (Ismail, 2011). A. Damodaran (2005) distinguishes two main types of synergies:

* operational synergy;
* financial synergy.

The analysis of academic literature, namely DePamphilis (2014), Reed (2007) and Sherman and Hart (2006) allows us to consider each group more thoroughly.

*Operational synergy*

Operational synergies make it possible for a company to reach higher gains from the existing assets. The following types of operational synergies can be distinguished:

1. Economy of scale

Economies of scale refers to the reduction of average total production costs due to a decline of average fixed costs because of increase of production volumes. This type of operational synergy is more common for horizontal mergers when companies from the same industry merge. The analysis of academic literature has shown that economies of scale tend to be the most popular motivation for M&A deals (Sharma, 2009).

2. Economies of scope

 Economies of scope implies the reduction in average total costs because of production taking place within one company rather than two separate companies.

3. Market power

Market power implies that companies merge or one company acquires another one in order to set prices at levels that cannot be sustainable in less concentrated market. Markets with small number of players more often become subject to such M&A strategy. Although the antitrust control measures are strengthened from year to year, this type of operational synergy still remains common in corporate practice. There is also evidence that M&A deals and, as a consequence, increase of concentration in the market can make the suppliers lower their prices (Bhattacharyya et al., 2011).

4. Combination of core competences of companies

Often an acquisition takes place if a target company possesses some unique technology or has a broad experience in any field, which an acquirer company needs for its further operations and growth. This type of operational synergy not always should take place in horizontal mergers, but also with companies from different industries.

5. Entry to new markets

M&A deals are one of the most common instruments a company can use in order to go to a new market. The acquisition of local players can provide an acquirer with established customer base, business processes, well-known brand etc. For example, in 2003 UK-based retailer Tesco entered Japan by the acquisition of 78 retail outlets of C Two-Network Co. that operated under the brand name “Tsurukame”. Although the Tesco brand was by that time already well-known, the management of the company decided to operate under “Tsurukame” brand in order to save the loyal customers (Qumer, 2008).

6. Risk diversification

One more common motivation for M&A deals is risk diversification through acquisition of companies beyond the product lines of the acquirer. Such practice was very popular in times of conglomerates, such as General Electric. However, nowadays investors more often perceive such highly diversified businesses as riskier ones as it is a hard mission to value all the business where company is operating (Andreou et al., 2010).

*Financial synergy*

Financial synergy implies the reduction of cost of capital for the acquirer due to a M&A deal. The following types of financial synergies can be distinguished:

1. Increase of an investment potential

If one company possesses large amount of free cash but small amount of planned projects and the other company lacks investment potential in order to cover all of its projects, the merger of these companies can be advantageous for both of them.

2. Increase of possible debt burden

There is no doubt, that merged organization possesses larger amounts of cash, are usually more stable and predictable rather than separately operating entities. This fact allows companies to increase the limit of their tax burden. The increase of financial leverage decreases the weighted average cost of capital and makes company benefit from tax shield.

3. Reduction of income tax

If one of the companies – participants of the deal is subject to operating losses, another company can balance its income with these losses. As a result, the amount of tax payments is decreased.

4. Better credit ratings

As it was stated above, merged organization usually possesses larger amounts of cash, is more stable and predictable rather than separately operating entities. As a consequence, the better credit ratings for this organization may occur, which leads to a decrease in cost of debt as well as to the better financial position of the merged company.

Certainly, the management teams of both companies evaluate the potential synergies that may occur after the deal. As the management of the target company realizes the high synergies an acquirer can obtain after the merger, the target company may charge higher premiums from the acquirer. On the other side, the acquirer realizes that the synergy gains the company will get from the deal are greater than the total price paid for the target and, as a consequence, the acquirer is ready to pay the premium.

The academic literature distinguishes two main approaches to the classification of motivations of M&A deals:

* the neo-classical approach – this approach is based on the assumption that managers act rationally and in the interests of shareholders;
* the agency theory – this theory is based on the assumption that managers make decisions in their interests which not always correspond with the interests of shareholders (Sherman and Hart, 2006).

Certainly, the perfect situation is when the present value of the forecasted synergies coincides with the size of the premium paid (Davidson, 1985). In academic literature there is a belief that if there is an overpayment (premium is greater than the expected synergy), than the deal is motivated by agency problems (Slusky, Caves, 1991).

Moreover, there is evidence that in 54% of the deals the premium paid exceeds the present value of the expected synergies (Dutordoir et al., 2013), which means that there are some other factors, that can explain occurring overpayments. Managerial factors stand as a separate group of factors that can influence the premium payments. Several motivations can be distinguished within this group:

* Managerial hubris (Roll, 1986) – managers of an acquirer company overvaluate the target because they are too optimistic concerning the expected synergetic gains from the deal;
* Agency problems and empire building (Fama, 1980; Jensen & Meckling, 1976; Jensen, 1986) – managers act in accordance to their interest at expense of shareholders’ interests;
* Managerial entrenchment (Sheilfer and Vishny, 1989).

Moreover, managers of the acquiring company often have a financial interest in conducting M&A deals:

* There is practice when CEO of a company receives considerable bonuses for closing an M&A deal. According to Grinstein and Hribar, approximately in 39% of acquiring companies CEOs are paid large bonuses (major part of which is paid out in cash) for completing an M&A deals. Furthermore, it should be mentioned that the size of these bonuses mainly depends not on the actual outcome of the deal, but on the “efforts” of managers (Grinstein and Hribar, 2003).
* Often the size of a company influences the size of CEO compensation (Ross et al., 2010). There is evidence that 2/3 of M&A deals with unsuccessful outcome result from irrational behavior of top managers (Roll, 1995). Moreover, overconfidence of managers (managerial hubris) also is one of the factors leading to overpayment in M&A deals (Malmendier and Tate, 2008; Brown and Sarma, 2007; Hayward and Hambrick, 1997).

As it can be seen, not always managers act in the interest of shareholders. There is evidence that for the deals in the US conducted from 1980 to 2001, shareholders have lost over $220 billion due to the managers' actions (Moeller, Schlingemann, Stulz, 2005).

## Summary

In this chapter we have discussed the theoretical backgrounds of M&A process, namely the notions of merger and acquisition, the formation of price in the deals and main motivations for paying premium. There are numerous participants in M&A deals as well as numerous motivations for completing a deal. These motivations differ from target to acquirer and also depend on the deal type.

Generally, the price of a company is usually a range of prices depending on the valuation method applied. According to neoclassical theory, there are two main components of price in M&A deals – present value of expected synergies and premium.

Operational and financial synergies are considered to be the main motivations for paying high premiums. However, modern academic literature also considers managerial factors as factors that influence the premium size. Managerial hubris, managerial entrenchment, agency problems as well as personal gains of managers are also seen as motivations for paying high premiums.

# CHAPTER 2. THE RELATION OF CEO CHARACTERISTICS TO THE COMPANY PERFORMANCE

## 2.1. The structure of CEO compensation as a solution to the agency problem

The idea that the main goal of a corporation is the maximization of shareholders’ wealth became very popular in scientific community of the second half of the 20th century. In modern companies the shares are usually distributed unevenly, which makes it impossible for shareholders to manage the company (Jerzemowska, 1999). As a consequence, in practice stockholders play mostly a role of investors, rather than co-owners. As we know, the main focus of the investors is the riskiness of the investment and its profitability. They pay much less attention to the financial results of a company. As a result, stockholders usually do not actively participate in the company's activities (Kim – Nosfinger, 2004), but transfer the right of control to the management team.

However, corporate objectives do not always correlate with the goals of managers. Managers, in the first place, try to satisfy their own interests even when it can be done only in the expense of stockholders. This discrepancy between interests leads to agency problems, that are most strong in public companies (Jensen and Meckling, 1976).

The most serious agency problem tends to be the conflict between managers (agents) and shareholders (principals) (Masulis, 1988). The conflict exists despite the right of shreholders to participate in management of the company by visiting and voting at annual meetings as well as by appointing and firing managers.

Masulis (1988) distinguishes the following reasons for this agent-rincipal problem:

1. managers prefer to work less if the amount of work done does not influence their compensation and the price of company shares they own;
2. managers prefer low-risk investments and low financial leverage as these conditions reduce the bankruptcy risk and, as a consequence, personal financial losses of the manager;
3. managers prefer short-term investments;
4. managers tend to avoid problems connected with their employment level.

Agency problems inevitably lead to the occurrence of agency costs. Ross, Westerfield and Jaffe (2005) define agency costs as additional costs that appear due to conflicts between interested parties (stakeholders) in situations when management and control functions are divided (Moyer, McGuigan and Kretlow, 1992). Agency costs include giving managers an incentive for maximization of shareholders' wealth; monitoring of managers; costs of protection creditors from shareholders.

According to Jensen and Meckling (1976), agency costs are the sum of the following components:

1. monitoring costs;
2. bonding costs;
3. residual loss.

Agency problem between managers and shareholders as well as the problem of agency costs can be solved through introduction of managerial incentives or through monitoring of managers.

As a rule, board of directors completes monitoring function in public companies. Members of the board of directors are elected by shareholders, in order to report their interests to management team. Although, board members are very competent and involved into corporate activities, monitoring as a solution to the agency problem has several disadvantages.

Firstly, some agency costs cannot be removed with the help of monitoring. Shareholders as well as members of the board of directors, do not possess the same amount of information on company activities, on its financial capabilities as managers, and CEO particularly, do. Such “informational asymmetry” prevents agents (shareholders) from total control of the company without participation of managers.

Secondly, delegated monitoring creates a «free-rider problem». As it was stated before, the shares of modern public companies are distributed unevenly among great amount of people. Such distribution does not motivate shareholders to monitor corporate activities and its financial results. On the contrary, it gives shareholders a stimulus to transfer this responsibility to other shareholders, to become a «free-rider». Undoubtedly, this approach does not allow us to consider monitoring to be a perfect method for solution of the agency problem.

Apart from this, high busyness of directors can lead to the formation of friendly relations between directors and the CEO. Such relations can influence the objectivity and, as a consequence, the efficiency of monitoring.

The system of managerial compensation connects managerial compensation, and compensation of CEO particularly, with the results of the company and with the shareholders’ wealth. Such approach is considered to solve the agency problem as the interests of both shareholders and managers are taken into account.

Two main components may be distinguished in the managerial compensation: fixed and variable. Fixed component refers to the base salary, whereas variable component includes different types of bonuses, equity-based compensation, payouts from long- and short-term incentive plans.

During the last decades of corporate history, the CEO compensation has shown a considerable growth in big as well as smaller companies. In 2014 median CEO compensation in S&P 500 companies was equal to $11,291 thousands, which is 20% higher than in 2010. Russell 3000 companies have shown smaller numbers in absolute values – median CEO compensation was equal to $3,885 thousands. However, the absolute growth exceeded that of bigger companies – 34.7% growth since 2000 (Tonnello, 2015).

The issue of growing managerial compensation, especially in the comparison with worker salaries has become very topical nowadays. According to the report of the Economic Policy Institute, in the last 40 years total CEO compensation has grown approximately by 941%, while the compensation of a typical worker has shown a growth of approximately 10% only. The interrelation between CEO compensation and non-executive employee compensation is measured by CEO-to-worker pay ratio, which reached the value of 275,6 in 2014 (Figure 2) (Mishel and Shieder, 2016).



Figure 2. Dynamics of CEO-to-worker pay ratio in the US companies

In order to control the growth of CEO compensation and its size relative to compensation of non-executive employees, the Security Exchange Commission has adopted a rule that requires all U.S. public companies to disclose their CEO-to-worker pay ratios in the reports (SEC Press Release, 2015).

Now let us consider the main components of managerial compensation. The component that was present throughout the whole corporate history is the base salary - a fixed amount of cash determined annually and paid out to managers mainly on a monthly basis. The share of base salary in the total CEO compensation has changed a lot since 1930s. Until 1999 base pay accounted for the major part of CEO compensation – in 1930s it stood for 100% of CEO compensation, whereas in 1999 its share reached only 53% (Frydman and Jenter, 2014). Today the share of base salary in CEO compensation is declining and differs depending on the size of the company. Base salary paid in cash on average represents about 23,8 percent of the total CEO pay in Russell 3000 companies and 11,6 percent in S&P 500 companies. It should also be mentioned, that base salary component is bigger for the named executive officers than for chief executive officer (32% compared to 23,8% in Russell 3000 companies) (Tonnello, 2015). When it comes to the growth rates, base salary appears to be the slowest growing component of the compensation. In 2013 its growth rate accounted for only 1,7%, whereas, for example, the growth of short-term incentive accounted for 4% (HayGroup report, 2014).

The variable part of the managerial compensation can include the following components:

* Bonus – a lump-sum paid out for past performance;
* Incentive pay – part of compensation paid out for reaching predetermined performance goals;
	+ Restricted stock – grants of stock that have certain restrictions;
	+ Restricted stock units (RSUs) – grants of units representing restricted stock;
	+ Stock options;
	+ Stock appreciated rights (SARs) – the right to receive the increase in the company’s stock price above the exercise price;
	+ Performance shares – company shares paid after achievement of pre-defined corporate goals;
	+ Performance cash – an incentive for achievement of pre-defined corporate goals paid out in cash;
	+ Performance units – grants of units which value is not influenced by valuation in stock prices and which can be paid out in cash as well as stock (Center on Executive Compensation, 2015);
* Benefits – retirement plans, medical benefits, perquisites etc. (Reed, Lajoux 2007)

The main purpose of the variable part in CEO compensation is to connect the CEO compensation to the performance of a company and, as a consequence, to align the interests of shareholders to the interests of managers. The relationship between the CEO incentive payments and a company’s performance has been a topical issue in academic literature since the studies of Jensen and Meckling (1976) and Jensen and Murphy (1990). Moreover, the studies on effect of CEO compensation on the outcome of M&A deals has also gained their popularity in the last decades. There is evidence that there is a positive relationship between the stock ownership of target CEO and target stock returns (Song and Walking, 1993; Stulz et al., 1990). Heitzman states that the share of equity-based compensation of target CEO is positively related to the shareholder value of the company (Heitzman, 2006). Fich finds the negative relationship between the size of golden parachutes paid out to target CEO and takeover premium (Fich et al., 2015). There is also evidence, that the equity-based compensation of acquirer CEO is positively related to the acquirer stock returns but negatively related to takeover premiums (Datta et al., 2001).

Thus, on the basis of the evidence provided by academic literature, we have developed the following hypothesis concerning the relationship between the equity-based compensation of a CEO and the size of the premium paid in M&A deal:

*H1: There is a positive (negative) relationship between the share of equity-based compensation of the CEO of target (acquirer) company and the size of the premium.*

Although the previous studies on this relationship have mainly concerned the acquirer companies, we anticipate the proposed relationship to also handle for the target companies.

## 2.2. Relation of CEO busyness and retention to the company performance

The major part of studies in modern academic literature that focus on CEO, are devoted to his equity-based compensation that we have discussed above. However, we find that there are also other CEO characteristics, that are of high interest for our study due to their relation to M&A deals. The analysis of existing studies allowed us to narrow our choice to busyness of CEO and the retention of target CEO.

Nowadays there are two competing points of view on the link between multiple directorships and performance of a company in M&A deals. The first view – the reputation hypothesis (Fama and Jensen, 1983), implies that market reaction to an M&A deal is more positive when the directors of the acquiring firm hold multiple directorships. It is supposed that such directors are more experienced, can provide better advice and, as a consequence, can prevent value-destructing acquisitions due to their expertise.

The second view – the busyness hypothesis, implies that high busyness of a director leads to worse monitoring and, as a consequence, to a more adverse agency conflicts. As a result, the market reacts more negatively to the deal.

In the study by Ahn et al. (2010) these both views are investigated in order to set the relationship between the director busyness and acquirer’s announcement returns. Their study is different from the previous studies conducted on the same issue from three perspectives: the most extensive set of acquisitions is used, a nonlinear relation between multiple directorships and acquisition performance is modelled explicitly and alternative methods of director busyness are used.

The sample for the research was selected given the following criteria: deals are completed in the period of 1998 to 2003; as a result of the deal acquirer obtains 100% of target shares; the deal value is not less than $1 mln.; the target is US public or private company. As a result, 1207 observations were collected.

Four different measures of the director busyness were applied: directorships per director; directorships per outside director; percentage of busy outside directors; dummy for busy board.

The result of univariate analysis have confirmed the busyness hypothesis – the high busyness of directors leads to more adverse market reaction due to M&A deal. The application of the regression analysis leads the authors to the conclusion that the effect of multiple directorships on acquisition performance is nonlinear. Negative announcement returns are induced only when directors become too busy, namely the high threshold is met.

Benson et al. (2015) were the first to consider the busyness of CEO separately from the general director busyness. Moreover, they were the first to study the issue of the relationship between the CEO busyness and the premium in M&A deal, which makes their study highly important for our research. Furthermore, the authors also focus on target CEOs, their busyness and its relation to premium in M&A deals.

The researchers have formulated three hypotheses for the purpose of empirical analysis:

H1: There is negative relationship between the premium and the board busyness of the acquirer; there is positive relationship between the premium and the board busyness of the target.

H2: There is positive relationship between the premium and the board busyness of the acquirer; there is negative relationship between the premium and the board busyness of the target.

H3: The relation between shareholder wealth and busy directors may be driven by busy CEOs, i.e., there is no significant relation between board busyness and shareholder wealth.

H4: There is negative relationship between the premium and the acquirer abnormal returns. The market responds positively to merger announcements for acquiring firms with a busy CEO.

For the purpose of empirical analysis, the sample was selected, which respected the following criteria: deals from 1997 to 2008; complete data on transaction characteristics is available; both acquirer and target a US companies; both acquire and target are non-regulated companies; the acquirer gets 100% of target shares after the acquisition. The final sample contains 1049 observations.

As a result, authors find that the behavior of busy CEOs in acquiring firms differs from that of busy CEOs in target firms. They find negative relationship between the busyness of acquirer CEOs and premium, which supports the reputation hypothesis discussed above. However, when it comes to busy target CEOs, they either do not influence the premium significantly or have to accept lower premiums. The author also gives the possible explanation to these results. Usually acquirer CEOs are more long-term oriented as in the majority of cases they continue to manage the company after the deal. On the contrary, target CEOs often think more about their personal benefits rather than about the target shareholders’ value as in the majority of cases target CEOs do not continue as CEO of the combined company. Moreover, the findings of the authors confirm the evidence that market reactions are more negative when an overpayment takes place.

As a result of academic literature analysis, the following hypothesis was formulated for further empirical research:

*H2: The premium in M&A deal is negatively related to the busyness of CEO of the acquirer company and positively related to the busyness of CEO of the target company.*

As it was mentioned above, in the majority of cases the target CEO does not continue managing the combined company as the CEO. Usually this post is taken by the acquirer CEO. As a result, the target CEO loses his position not only in his company, but can become totally unemployed. Moreover, as we can derive from our sample, the average age of the CEO is 56 years old. Basically, the chances to find one more high position in another company for him are not so high. In order to protect CEOs from such situation, their employment contracts include severance payments that are paid out to the manager in cases such as change in control. According to our sample, the value of severance payments for the CEO in one of the deals reached more than $95 mln. Basically, the employment contracts are tailored to protect managers from all situations that can occur, including unsuccessful M&A deals. That is why often employment contracts are criticized to be pay for failure (Bebchuk and Fried, 2004).

The purpose of the study by Zhao (2013) is to examine whether and how the employment contracts of CEOs can influence the investment decisions of a company (including M&A deals) and its performance. The author formulates two main hypotheses for his study:

H1: CEOs with an employment contract are more likely to make risky and value-enhancing acquisitions than CEOs without one (incentive effect hypothesis);

H2: CEOs with a contract are less likely to make risky, value-creating M&A than CEOs without one (entrenchment effect hypothesis).

For the sample the author took M&A deals that took place in the USA from 1992 to 2005 and that fulfill the following requirements: the deal value is not less than $10 mln.; the acquirer owns 100% target shares after the announcement of merger/acquisition. The final sample consists of 527 deals, 50.8% of which are completed by CEOs with an employment contract.

The results of the study have shown that employment contracts motivate managers of acquiring companies to pay lower premiums for targets and to complete deals with higher profitability which generate higher gains for acquirer shareholders. On the other side, employment contracts motivate managers to take riskier investment decisions, to consider riskier target companies for acquisition.

As it was discussed above, target CEOs usually are subject to hard consequences after M&A deals. They can not only lose their position and power, but also be in a situation of uncertainty concerning their future income (Hadlock et al., 1999). There is evidence that target CEOs rarely find another job after losing their position due to M&A deal (Agrawal and Walking, 1994). Qiu et al. (2014) decided to investigate whether the personal benefits (severance payments, position in the combined company (retention)) of target CEO are related to premium paid in the deal.

For the sample the authors took M&A deals that took place in the USA from 1994 to 2010 and that fulfill the following requirements: the deal value of not less than $1 mln.; target and acquiring companies should be both US companies that are traded within the US; acquirers should own more than 51% of target shares after the deal. As a result, the researchers came up with a sample consisting of 3565 deals.

The results of the study have shown that there is negative relationship between the target CEO retention and premium. Moreover, the negative relationship between severance payments and premium was found for cases, when target CEO was not retained. In general, these results support the agency theory and speak in the favor of conclusion that target CEOs can trade off shareholder value for personal benefits – position in a combined company and severance payments.

As a result of academic literature analysis, the following hypothesis was formulated for further empirical research:

*H3: The size of the premium is less when target CEO is retained in the combined company in comparison to opposite situation.*

## Summary

In the second chapter we have considered different CEO characteristics that may influence the company performance and M&A outcome specifically.

First of all, the system of managerial compensation was described. Modern system of managerial compensation connects managerial compensation, and compensation of CEO particularly, with the results of the company and with the shareholders’ wealth. Such approach is considered to solve the agency problem as the interests of both shareholders and managers are taken into account. More precisely, the share of equity-based compensation relates to the company performance.

However, we find that there are also other CEO characteristics, that are of high interest for our study due to their relation to M&A deals. The analysis of existing studies allowed us to narrow our choice to busyness of CEO and the retention of target CEO. According to recent studies, there are two main theories on director busyness and its relation to company performance – reputation hypothesis and busyness hypothesis. When it comes to the retention of target CEO, there is evidence that often target CEOs trade off shareholder value for personal benefits.

On the basis of reviewed academic literature, in this chapter hypotheses for the purpose of further empirical research were also developed.

# CHAPTER 3. EMPIRICAL RESEARCH OF DETERMINANTS OF THE PREMIUM IN M&A DEALS

## 2.1. Methodology

*Regression analysis*

We build two regressions to conduct our empirical research. The first regression is built in order to find the main determinants of premium in M&A deals. The second regression is aimed at defining the relationship between characteristics of CEO of target and acquirer companies and premium paid.

*1st regression: determinants of M&A premium*

The basic model for this regression is the following:

*premium =* $α + β\_{1}\*D+ β\_{2}\*A+ β\_{3}\*T$ *+ ε,* where

* D – vector of deal characteristics;
* A – vector of acquirer's characteristics;
* T – vector of target's characteristics;
* β1, β2, β3 – vectors of unknown coefficients;
* ε – random variable.

*2nd regression: CEO characteristics as determinants of M&A premium*

In order to examine the influence of different characteristics of CEO of target and acquirer companies on the premium paid, we built the second linear multivariate regression.

The basic model is the following:

*premium =* $α + β\_{1}\*D+ β\_{2}\*A+ β\_{3}\*T$ *+ ε,* where

* D – vector of deal characteristics;
* A – vector of acquirer's company and CEO characteristics;
* T – vector of target's company and CEO characteristics;
* β1, β2, β3 – vectors of unknown coefficients;
* ε – random variable.

Premium (the dependent variable) is calculated as the value of the deal divided by the market value of equity of the target 1 month prior to the deal announcement (Moeller et al., 2004).

The independent variables are grouped into three types: variables, which reflect deal characteristics; variables, which reflect acquirer’s characteristic; variables, which reflect target’s characteristics.

The variables which reflect CEO characteristics are used only in the second regression.

In the following table all the variables will be described, the method of their calculation as well as theoretical support for their usage will be given.

Table 1.

**Variables used in regression models**

| Variable | Description and calculation method | Expected relationship | Theoretical support |
| --- | --- | --- | --- |
| *Deal characteristics*relatsize | Relative company size - reflects the proportion in which the sizes of target and acquirer companies are related. Claculated as market value of target’s equity 1 month prior to deal announcement divided by the market value of acquirer’s equity 1 month prior to deal announcement | unclear | Ismail, 2011 |
| relatdealsize | Relative deal size - reflects the proportion in which the sizes of target and acquirer companies are related. Calculated as deal value divided by market capitalization of acquirer 1 month prior to deal announcement. | unclear | Grinstein and Hribar, 2003;Ismail, 2011 |
| sic | Similarity of sectors – a binary variable that reflects whether target and acquirer operate in similar sectors according to Standard Industrial Classification. 1 – companies operate in similar sectors, 0 – companies operate in different sectors. | positive | Qiu et al., 2014 |
| attitude | Deal attitude – the binary variable that reflects whether a deal was friendly or hostile. 1 – friendly, 0 – hostile. | negative | Qiu et al., 2014 |
| pvsynergy | Synergy ratio – relative size of synergies compared to the size of the acquirer. Calculated as the present value of forecasted synergies divided by the market value of acquirer 1 month prior to the deal announcement. | positive | Dutordoir et al., 2010;Ruback, 2002; Houston et al., 2001; Devos et al., 2009 |
| *Characteristics of companies*lnassetmv\_acq | Size of the acquirer; calculated as natural logarithm of market value of assets of the acquirer. MV assets = BV of assets – BV of equity + MV of equity | unclear | Brown and Sarma, 2007;Ismail, 2011;Renneboog and Zhao, 2014 |
| debtassmv\_acq;debtassmv\_t | Leverage of a company; calculated as debt divided by the market value of assets. | Negative (for acquirer) | Brick et al., 2006;Renneboog and Zhao, 2014 |
| ocfassmv\_acq | Operating performance of the acquirer; calculated as operating cash flow divided by the market value of assets. | positive | Moeller et al., 2004 |
| *CEO characteristics*comp\_acq;comp\_t | Total annual compensation of CEO for the last available period prior to the deal | unclear | Brick et al., 2006;Brown and Sarma, 2007;Ismail, 2011 |
| ecomp\_acq;ecomp\_t | Equity-based compensation of CEO; calculated as stock and option awards to CEO divided by his total annual compensation. | Negative (for acquirer);Positive (for target) | Datta et al, 2001; Brick et al., 2006;Ismail, 2011 |
| busy\_acq;busy\_t | The busyness of CEO – the number of boards of directors, in which the CEO is present | Negative (for acquirer); positive (for target) | Brick et al., 2006;Ahn et al., 2010;Benson et al., 2015 |
| retention | Retention of target CEO – a binary variable that shows whether a target CEO is retained in the combined company or not. 1 – retained, 0 – not retained  | negative | Agrawal and Walking, 1994;Renneboog and Zhao, 2014;Qiu et al., 2014 |

## 2.2. Sample selection

In order to collect the data for the sample, Thomson Reuters Eikon Database was used. The deals for the sample had to fulfill the following requirements:

* announcement date in the time period of January 2005 to December 2015;
* both acquirer and target companies are publicly traded companies in the United States;
* disclosed value of deals not less than $ 3 billion;
* after the deal acquirer owns more than 50% of target stock.

The proposed time period is used in order not only to consider the current trends in M&A deals, but also to look at previous merger waves. Publicly traded US companies only were taken due to the availability of information on them. The requirement for the disclosed value of the deal is applied to consider the mega deals and to also get all the information needed. The requirement that the acquirer should own more than 50% of the target after the deal is chosen in order to avoid portfolio investments and speculative issues.

Initially we came up with 179 deals that fulfil the requirements given. However, further collection of data has reduced our sample to 166 deals, on which all the information was available. The following sources of information were used for data collection: Thomson Reuters Eikon database, Zephyr database, EDGAR search base of Security Exchange Commission (8-K, DEF14, DEF 14A, 10-K and S-4 reports) and reports published on official websites of companies. Table 2 presents the sources of information that were used for collecting data on different variables.

Table 2

**The sources of information used for data collection**

|  |  |  |
| --- | --- | --- |
| **№** | **Data** | **Sources of information** |
| 1 | Announcement and effective dates of the deal | Thomson Reuters Eikon |
| 2 | Market value of equity of target and acquirer (1 month prior to deal announcement) | Thomson Reuters Eikon |
| 3 | Deal Size | Thomson Reuters Eikon |
| 4 | Percent acquired | Thomson Reuters Eikon |
| 5 | SIC code | Thomson Reuters Eikon |
| 6 | Deal attitude | Thomson Reuters Eikon |
| 7 | Payment method | Zephyr database |
| 8 | Forecasted synergies | SEC (reports 8-K, S-4, DEF14,DEF 14A) |
| 9 | Cost of equity for target and acquirer | Damodaran |
| 10 | Book values of equity of target and acquirer (Last available prior to deal announcement) | SEC (reports 10-K, DEF 14A) |
| 11 | Book value of assets of target and acquirer (Last available prior to deal announcement) | SEC (reports 10-K, DEF 14A) |
| 12 | OCF of target and acquirer (Last available prior to deal announcement) | SEC (reports 10-K, DEF 14A) |
| 13 | CEO compensation of target and acquirer (Last available prior to deal announcement) | SEC (reports 10-K, DEF 14A) |
| 14 | Busyness of CEO | SEC (reports 10-K, DEF 14A) |
| 15 | Retention of target CEO | SEC (reports DEFM14A, DEF 14A) |
| 16 | Severance payments to target CEO | SEC (reports DEFM14A, DEF 14A) |

## 2.3. Descriptive statistics of variables

The descriptive statistics of deal, acquirer and target will be analyzed separately. Descriptive statistics of deal characteristics are given in the Table 3.

Table 3

**Descriptive statistics of deal characteristics.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Observations** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| Premium paid, mln. $ | 166 | 1 531,776 | 7 517,58 | -42 915,81 | 28 801,15 |
| Present value of forecasted synergies, mln. $ | 72 | 4 597,087 | 7 062,777 | 233,546 | 44 043,02 |
| Deal value, mln. $ | 166 | 11 838,44 | 13 998,05 | 3009 | 89 432 |
| Relative deal size | 166 | 0,909 | 1,492 | 0,014 | 11,91 |
| Relative company size | 166 | 0,651 | 1,165 | 0,008 | 10,76 |
| Length of negotiations, days | 166 | 166,277 | 97 | 38 | 540 |

The average premium paid in our sample is equal to 1 531,8 mln. US dollars. It can also be inferred that for some deals the premium is negative. It means that in fact the acquirer has paid for the target less than the market capitalization of the target. In our sample 39 deals have shown the negative premium. As no definite pattern for negative payments could be found, it is supposed that negative premium occurs due to specific deal terms. Apart from this, considerable overpayments can also be observed. In one of the deals the target company has overpaid more than $28 bln. to acquire the target.

Unfortunately, only in 43,37% deals the value of synergy was forecasted as revenue enhancements or cost savings. The average size of the present value of forecasted synergies accounted for 4 597,087 mln. US dollars. It should be mentioned that the standard deviation for present value of forecasted synergies is quite high. This number varies from approximately $233 mln. to $44 bln. In 31 out of 72 deals the present value of forecasted synergies is more than the premium paid.

The average deal value in the considered sample is equal to approximately 11,8 bln. US dollars. The smallest deal value is 3 bln. US dollars and the largest is over 89 bln. US dollars. It can be inferred that mega deals account for a large part of our sample.

The variable relative deal size shows how important the deal is for the acquirer in terms of relative size of the deal to the market value of the acquirer. From our sample we can infer that on average the size of the deal accounted for 90,9% of the acquirer size, which means that on average the deals were of high importance for acquiring companies. In some cases the deal value even exceeded the acquirer size in more than 11 times.

The relative company size shows how big the target is in comparison to the acquirer. We can make a conclusion that on average target companies were smaller than acquirers. However, still there were deals when a smaller company has acquired a much bigger one.

The average length of negotiations for our sample was equal to 166 days. It should be mentioned that this variable varied a lot, from minimum value of 38 days to the maximum value of 540 days.

Approximately 73% of deals in our sample were deals between companies from similar industries according to SIC classification. It is interesting to mention, that only 2 of all the deals were hostile acquisitions. Furthermore, only 3% of all acquisitions had more than one potential acquirer, meaning that they were competitive.

As for payment method, 22,3% of all deals were paid using stock, in 33,7% the payment was proceeded in cash, whereas other deals were paid using the mixed method.

Descriptive statistics of characteristics of acquiring company as well as of acquirer CEO are presented in Table 4.

Table 4

**Descriptive statistics of acquirer’s characteristics.**

| **Variable** | **Observations** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| --- | --- | --- | --- | --- | --- |
| Market capitalization, mln. $ | 166 | 51 965,62 | 66 112,9 | 821,1 | 329 721,2 |
| MV Assets, mln. $ | 166 | 81 688,47 | 113 882 | 1 475,176 | 797 989,6 |
| M/B ratio | 166 | 5,942 | 16,4 | -3,636 | 183,617 |
| Leverage | 166 | 0,366 | 0,211 | 0,001 | 0,91 |
| OCF/MV Assets | 166 | 0,064 | 0,045 | -0,076 | 0,262 |
| CEO compensation, mln. $ | 166 | 14,8 | 14,2 | 1 | 87,5 |
| Equity-based compensation in total CEO compensation | 166 | 0,535 | 0,252 | 0 | 0,966 |
| Busyness of CEO | 166 | 2,45 | 1,768 | 1 | 8 |

The average market capitalization of acquiring companies in our sample is equal to 51 966 mln. US dollars. It should also be mentioned that market capitalization varies a lot – from minimum value of $821,1 mln. to maximum value of more than $329 bln.

The average ratio of market value of acquirer to its book value accounts for 5,9. In some cases this ratio is negative, which means that these companies have a very high level of debt. Such observations will be excluded from our sample for the purpose of empirical analysis.

The debt load level of acquiring companies also varies significantly. The average value of leverage for the sample given is 0,366.

The ratio of operating cash flow reflects the operating performance of acquiring companies. The average value of this variable in our sample accounted for 0,064, meaning that on average $1 of assets of an acquirer produces 6,4 cents. For some companies the operating cash flow had a negative value. We will keep these observations for our further analysis.

Average annual CEO compensation for acquiring companies accounted for $14,8 mln. Considerable variation can be seen for this variable. Some acquirer CEOs have earned only $1 for the last year prior the deal. At the same time, the maximum value of CEO compensation was equal to $87,5 mln. The observations with $1 will be excluded from the sample as we consider them to be outliers. The average share of equity-based compensation in total CEO compensation for acquiring companies was equal to 55,4%, which means that the compensation is tied to the performance of a company. However, in some cases the value of this variable was equal to zero, which means that in these companies equity-based compensation is not included into the compensation program.

The CEO of an acquirer company is on average busy in 2,45 boards of directors. The number of boards in which he is present varies from 1 to 8.

Descriptive statistics of characteristics of target company as well as of target CEO are presented in Table 5.

Table 5

**Descriptive statistics of target’s characteristics.**

| **Variable** | **Observations** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| --- | --- | --- | --- | --- | --- |
| Market capitalization, mln. $ | 166 | 10 306,66 | 13 579,54 | 86,08 | 79 638,69 |
| MV Assets, mln. $ | 166 | 15 043,33 | 17 899,21 | -802,694 | 112 657,7 |
| M/B ratio | 166 | 3,1 | 20,522 | -242,58 | 42,083 |
| Debt/ MV Assets | 166 | 0,258 | 0,799 | -8,975 | 0,932 |
| OCF/ MV Assets | 166 | 0,048 | 0,081 | -0,808 | 0,438 |
| CEO compensation, mln. $ | 166 | 7,887 | 6,263 | 1 | 47,2 |
| Share of stocks and options in total CEO compensation | 166 | 0,537 | 0,228 | 0 | 0,959 |
| Busyness | 166 | 2,51 | 2,106 | 1 | 11 |
| Severance, mln. $ | 166 | 14,2 | 22,2 | 1,74 | 95,882 |

The average market capitalization of acquiring companies in our sample is equal to 10 306 mln. US dollars. It should also be mentioned that market capitalization varies a lot – from minimum value of $86,1 mln. to maximum value of more than $79 bln. The companies with the negative market value of assets will be excluded from the sample for the purpose of further empirical analysis.

The average ratio of market value of acquirer to its book value accounts for 3,1. In some cases this ratio is negative, which means that these companies have a very high level of debt. Such observations will be left in our sample as we find such situation to be quite common for target companies – in more than 10% of target companies the debt load is extremely high and, as a consequence, the M/B ratio is negative.

The debt load level of target companies also varies significantly. The average value of leverage for the sample given is 0,258.

The ratio of operating cash flow reflects the operating performance of target companies. The average value of this variable in our sample accounted for 0,048, meaning that on average $1 of assets of an acquirer produces 4,8 cents. For some companies the operating cash flow had a negative value. We will keep these observations for our further analysis.

Average annual CEO compensation for acquiring companies accounted for $7,9 mln. Considerable variation can be seen for this variable. Some acquirer CEOs have earned only $1 for the last year prior the deal. At the same time, the maximum value of CEO compensation was equal to $47,2 mln. The observations with $1 will be excluded from the sample as we consider them to be outliers. The average share of equity-based compensation in total CEO compensation for acquiring companies was equal to 53,7%, which means that the compensation is tied to the performance of a company. However, in some cases the value of this variable was equal to zero, which means that in these companies equity-based compensation is not included into the compensation program.

The CEO of a target company is on average busy in 2,51 boards of directors. The number of boards in which he is present varies from 1 to 11.

Approximately 28,57% Of CEOs of target companies are retained in new firms. If they are not retained, they become subject to severance payments. The average amount of severance payment in our sample is equal to 14,2 mln. US dollars and varies from 1,74 mln. US dollars up to 95,9 mln. US dollars. As we can see severance payments vary significantly across CEOs of target companies.

We have conducted the analysis of characteristics of target and acquiring companies as well as characteristics of their CEOs. Next logical step would be to analyze target and acquirer companies as well as CEO characteristics separately. Comparative analysis is presented in Table 6.

Table 6

**Comparative analysis of target and acquiring companies.**

| **Variable** | **Observations** | **Mean - Acquirer** | **Mean - Target** |
| --- | --- | --- | --- |
| Market capitalization, mln. $ | 166 | 51 965,62 | 10 306,66 |
| MV Assets, mln. $ | 166 | 81 688,47 | 15 043,33 |
| M/B ratio | 166 | 5,942 | 3,1 |
| Debt/ MV Assets | 166 | 0,366 | 0,258 |
| OCF/ MV Assets | 166 | 0,064 | 0,048 |
| CEO compensation, mln. $ | 166 | 14,8 | 7,887 |
| Share of stocks and options in total CEO compensation | 166 | 0,535 | 0,537 |
| Busyness of CEO | 166 | 2,45 | 2,51 |
|  |

We can infer from the table that on average the acquiring companies are larger than target companies both in terms of market capitalization and market value of assets. It is interesting to mention, that acquiring companies have higher debt load level than target. At the same time, acquirers are more efficient in terms of operating cash flows. It is also noteworthy that the total annual compensation of acquirer CEOs exceeds the one of target CEOs. In addition, target and acquiring companies are on average quite similar when it comes to the share of equity based compensation – for both types of companies the average value of this variable accounts for approximately 54%. The same trend can be seen for CEO busyness. Roughly speaking, CEOs of acquirer and target companies are on average present in 2,5 boards of directors.

## 2.4. Econometric analysis

*Results of regression analysis*

In the frames of regression analysis three models were run. The first model reflects the main determinants of M&A premium. The second and the third models include CEO characteristics. The second model reflects the relationship between the premium and the equity-based compensation of CEOs, whereas the third model includes retention and busyness of CEOs as variables.

The results of all three models are presented in Table 7.

Table 7

**Determinants of M&A premium.**

| **Variable** | **Model 1** | **Model 2**  | **Model 3** |
| --- | --- | --- | --- |
| *relatdealsize* | -0,418\* | -0,599\* | -0,471\*\*\* |
| *relatsize* | -0,664 | 0,513 | -0,519 |
| *sic* | 1,091 | 1,018 | 0,358 |
| *att* | 0,253 | 0,244 | -0,225 |
| *pvsynergy* | 3,097\*\*\* | 3,175\*\*\* | 0,328\* |
| *lnassetmv\_acq* | -0,238 | -0,235 | -0,085 |
| *debtassmv\_acq* | -4,402\*\* | -5,526\*\* | 0,534 |
| *ocfassmv\_acq* | 13,222\*\* | 17,614\*\* | -2,539 |
| *debtassmvt* | 4,199\*\* | 5,516\*\* | 0,553 |
| *comp\_acq* |  | -280,276 |  |
| *ecomp\_acq* |  | 0,619 |  |
| *comp\_t* |  | 318,276 |  |
| *ecomp\_t* |  | -2,689 |  |
| *retention* |  |  | -0,529\*\* |
| *severance* |  |  | -0,568 |
| *busy\_acq* |  |  | -0,035\* |
| *busy\_t* |  |  | 0,023 |
| cons | -0,450 | -0,156 | 1,092 |
| Adj. R2 | 0,818 | 0,817 | 0,760 |
| Prob > F | 0,000 | 0,000 | 0,000 |

Let us consider the results of each model separately.

The first model includes only the variables that stand for deal, acquirer and target characteristics. It is essential to mention, that our first model is significant, with Prob > F of 0,000 and, hence we can interpret its results.

Variables that are significant at 5% and 10% levels in the first model are as follows: the relative deal size; the relative company size; the debt load level of the acquirer; the operating performance of the acquirer; the leverage of the target. Present value of forecasted synergies is significant at 1% level.

Negative relationship is found between the relative deal size and the premium. It is logical that the relation of deal size to the market value of acquirer can measure the importance of a deal to the acquirer. The greater relative deal value, the more careful will be the acquirer at estimating the premium he is ready to pay for the target.

Positive correlation is found for the forecasted synergies and premium. These finding stands along with the neoclassical theory. Such relationship is logical as the more synergy the acquirer is expecting to get from the deal, the more he is ready to pay for the target. This finding stand in line with the results of the research conducted by Nielsen and Melicher (1973). However, in the study by Ismail (2011) the relationship between forecasted synergies and premium was proved to be insignificant. Such difference can be explained by different samples used by the academicians.

We observe a negative correlation between the leverage of the acquirer and premium. Companies with high debt load have less opportunities to finance the deal, especially the megadeal. As a result, such acquirers on average pay lower premiums than acquirers with lower leverage. This finding stands in line with the finding by Ismail (2011). On the contrary, positive relationship was found between the debt load level of the target company and the size of the premium. This can be explained by the fact that companies with higher leverage have lower WACC and acquirers, who search for lower WACC agree to pay higher premium for such targets. The explanation is that lower WACC allows to increase the present value of the company as all future cash flows are discounted at lower cost of capital.

We also find significant positive correlation of the operating performance of the acquirer and the size of the premium. This finding was expectable as it is logical that acquirers that dispose of greater operating cash flows have more opportunities to finance the deal and hence are ready to pay higher premiums.

The second model was applied in order to define the relationship between the premium and the equity based compensation of CEOs, namely to test the first hypothesis (H1). The model was significant with Prob > F of 0,000. The variables that are significant at 5% level in the second model are as follows: the debt load level of the acquirer; the operating performance of the acquirer; the leverage of the target. Present value of forecasted synergies is significant at 1% level. The equity-based compensation of both acquirer and target CEOs were not proved to be significant. This result does not allow us to accept our first hypothesis (H1: There is a positive (negative) relationship between the share of equity-based compensation of the CEO of target (acquirer) company and the size of the premium) on the basis of our sample. Our finding contradicts the managerial hubris theory proposed by Roll (1986); the agency theory (Jensen, 1986; Jensen and Meckling, 1976; Fama, 1980). Moreover, different conclusions were also made by Datta et al. (2010) and Ismail (2011).

The third model was applied in order to define the relationship between the premium and the CEO busyness as well as the retention of target CEO, namely to test the second and the third hypotheses (H2 and H3). The model was significant with Prob > F of 0,000. The variables that are significant at 10% level in the third model are as follows: the present value of expected synergies and the busyness of acquirer CEO. The retention of target CEO is significant at 5% level.

We observe negative relationship between the busyness of acquirer CEO and premium. However, the relationship between the busyness of target CEO and premium is proved to be insignificant. This result allows us to accept our second hypothesis (H2: The premium in M&A deal is negatively related to the busyness of CEO of the acquirer company and positively related to the busyness of CEO of the target company) for acquirer only. In this case the reputation hypothesis is supported – busy CEOs of acquiring companies use their expertise from multiple directorships to avoid value-destructive deals for their company. Moreover, usually acquirer CEOs are more long-term oriented as in the majority of cases they continue to manage the company after the deal. Our findings stand in line with the results of study conducted by Benson et al. (2015).

Moreover, the negative relationship between the retention of target CEO and premium is found. This implies that we can accept our third hypothesis (H3: The size of the premium is less when target CEO is retained in the combined company in comparison to opposite situation) on the basis of our sample. In general, these results support the agency theory and speak in the favor of conclusion that target CEOs can trade off shareholder value for personal benefits – position in a combined company and severance payments. Our findings stand in line with the results of study conducted by Qiu et al. (2014).

## Summary

In the third chapter we have conducted econometric analysis in order to identify determinants of premium in M&A deals. Moreover, we have identified the relationship between different CEO characteristics and premium paid. The following CEO characteristics were chosen for the analysis: the share of equity based compensation in total CEO compensation; busyness of CEO; retention of target CEO.

We have found that there is positive relationship between the present value of expected synergies and premium paid. This finding supports the neoclassical theory which was discussed earlier.

Moreover, positive relationship was found between the premium and operating efficiency of the acquirer; leverage of the target. Relative deal size and leverage of the acquirer are negatively correlated to the premium size.

As for CEO characteristics, we have identified negative relationship between the premium and the busyness of CEO of acquiring company; the retention of target CEO. The finding on busyness allowed us to confirm reputation hypothesis and state that acquirer CEOs use their experience and expertise from multiple boards in order to avoid value-destructive deals. The finding on retention speaks in favor of opinion that target CEOs trade off shareholder value for their personal benefits.

# CONCLUSION

This paper was devoted to the analysis of main determinants of premium paid in M&A deals as well as the CEO characteristics that may influence the size of the premium. The research goal of the paper was to determine the relationship between different characteristics of CEO of both acquirer and target companies and market premium in M&A deals. We believe that the stated goal was achieved as well as the research objectives were completed.

In the first part of our work we have looked into the theoretical background of M&A concept, namely the notions of merger and acquisition, the general procedures for deal prosecution, the main parties involved into the deals. Furthermore, we have considered the motivations for conducting M&A deals as well as the main reasons of premium occurrence.

In the second part of the paper we have investigated the CEO characteristics that can influence the premium size in M&A deals from both acquirer and target side. We have also looked into the corporate governance issues and the role of the CEO in M&A deals.

Our next step was conducting an econometric analysis in order to identify the main determinants of the premium. The important finding was that there is a positive relationship between the present value of forecasted synergies and the premium paid. Moreover, we have determined the positive relationship between the premium size and operating performance of the acquirer; debt level of the target company. Negative relationship was identified between the premium and the relative deal size; leverage of the acquirer.

Further step was to determine the relationship between CEO characteristics and the premium size. The findings have confirmed the existance of positive relationship between the busyness of the acquirer CEO. We have also identified that premium paid is lower when the target CEO is retained in the combined company in comparison to premium paid when the target CEO is not retained.

According to our results, two out of three hypotheses stated in our study can be accepted:

 *There is positive relationship between the busyness of the acquirer CEO and premium size.*

 *Premium paid is lower when the target CEO is retained in the combined company in comparison to premium paid when the target CEO is not retained.*

The hypothesis that there is positive (negative) relationship between equity-based compensation of the CEO of target (acquirer) company and the premium cannot be accepted for the considered sample due to insignificance of the relative variable.

As a further step we have developed the following managerial recommendations, that are based on our empirical results:

* Developing realistic forecasts of synergies is crucial for acquirer company in order to avoid overpayments;
* The careful analysis of the target should be conducted as its characteristics also influence the premium size;
* It is important for regulators to require the management of target companies disclose to target shareholders such relevant information as target CEO retention and CEO severance pay arrangements.

We are inclined to think that following the given managerial recommendations can help the acquirer managers to avoid paying extra high premiums for the target company.

The main contribution of this research paper is the conducted analysis of main determinants of premium as well as CEO characteristics that influence the premium size in M&A deals. We believe that investigating the relationship between other CEO characteristics (not considered in this paper) and premium paid to be an interesting field for further research. Moreover, the major part of existing studies on determinants of premium are devoted to the M&A conducted in the USA, whereas developing markets can provide valuable data for future findings.

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