CEO turnover in post-acquisition integration processes: Impact of individual characteristics and cross-border factor

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Abstract

Chief executive officers are very important players in their organizations. They control company’s strategies and structure, and consequently are a crucial factor in its direction and performance. As a result, their replacement can be a critical juncture for organizations. Analyzing a sample of 429 acquisitions that happened between 2001-2007 in Europe and USA, I try to investigate whether or not CEO replacement/retention is more likely or less likely in cross-border acquisitions and how this relation is moderated by such individual characteristics of the CEO as age, tenure, CEO being the founder, multiple roles in the target and education. According to the results, CEOs having multiple roles and a longer tenure have higher chances to depart within three years in case of domestic acquisitions. Moreover, working in the instruments industry and the industry related to computer and office equipment has a positive impact on the CEO turnover within three years as well. The hypotheses regarding the lower CEO turnover rates in cross-border acquisitions comparing to the domestic ones that increase over time were supported.

Key-words: acquisitions, CEO turnover, individual characteristics, cross-border, post-acquisition integration processes.
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1. Introduction

1.1. Research background and purpose

Chief executive officers are very important players in their organizations. They control company’s strategies and structure, and consequently are a crucial factor in its direction and performance. As a result, their replacement can be a critical juncture for organizations.

One of the reasons for CEO replacement can be acquisitions, events that often lead to significant changes in the top management team of the acquired firms. Some authors see acquisitions as a potential response to incompetent or dishonest management in the acquired firms that is why replacement of these top management executives is crucial for post-acquisition performance (Fama and Jensen, 1983). Other researchers perceive target executives as an important resource and consider their retention critical for post-acquisition success (Yunker, 1983; Jemison and Sitkin, 1986).

The literature on top management executive retention and departure in post-acquisition integration processes was mostly focused on pre-acquisition performance of the target company, relatedness, or extent to which the acquirer and the target have product/market similarities (Jemison and Sitkin, 1986, Datta, 1991).

Very few previous studies have examined succession contingencies at the level of individual CEO characteristics that would help us to understand what kind of individual characteristics of the target CEO could potentially influence the decision of the acquirer to retain or replace him after the acquisition has been completed.

Moreover, most of the past studies have focused on large, already established firms and less attention has been paid to smaller high technological ventures.
That can be due to the fact that large companies are more visible, and it is usually easier to collect data on their history, executive turnover and succession. However, high technology entrepreneurial ventures have several particular features. They are an important and interesting context to study since such companies play an increasingly important economic role and exist in a particular environment characterized by rapid change, ambiguity and hypercompetition (D'Aveni, 1994).

The human capital there, especially top managers, represent a primary source of value creation (Unger et al., 2011). While in many industries entrepreneurs have broad skills (Lazear, 2005), entrepreneurs in many high-tech industries are represented by highly specialized human capital with technological knowledge (Colombo and Grilli, 2005). Consequently, the outcome of the research on large established firms cannot be applied to the smaller ventures.

Moreover, executive turnover rates might differ between domestic and cross-border acquisitions, that can be explained by the fact that in cross-border acquisitions foreign acquirers face integration of the company that is not only geographically more distant, but is also culturally different, and for this reason they are more reluctant to make significant strategic and organizational changes immediately after the acquisition event (Krug, 2009).

For this reason I decided to investigate this aspect in my research further together with an impact of the CEOs individual characteristics.

To sum up, I focus on two research questions in this paper:

1. What is the impact of individual characteristics of the CEOs on their departure from a small high-technological venture that gets acquired by a larger multinational company?

2. How does the cross-border factor impact CEO departure in that framework?
1.2. Methods of the research

This paper combines theoretical and empirical methods in addressing the research questions.

1.2.1. Theoretical research

In order to study the theoretical background of the organizational design of top management teams in post-acquisition implementation processes in high-tech entrepreneurial ventures, I made a literature review of related research, which besides the theoretical base of this research provided me also with some inputs for the empirical analysis of this paper.

1.2.2. Empirical research

Econometric approach to the data estimation by building and evaluating the logistic model on a sample extracted from the collected data set is the main method for the empirical part of this paper.

The data set used in the empirical analysis contains information on 429 acquired companies. They are retrieved from SDC Platinum and Zephyr, the two most renowned databases on acquisitions.

Acquisitions contained in the data set satisfy the following criteria:

- target had less than 1000 employees;
- target operates were in high-technological industries, as defined by the OECD;
- target was acquired in the period 2001-2007;
- the headquarters of the acquirer and acquired firm were located in European Union or United States;
- acquiring firms were public companies;
at least 50% of the target was acquired (also in several steps).

The author has contributed to data collection by coding the data on 171 acquisitions using news extracts in order to see whether the target CEO stayed within the company after it has been acquired on the same or different position or not, and completed the database with the CEO’s background with the use of LinkedIn, Capital IQ, Bloomberg Business Week and other available online information sources.

1.3. Structure of the research

There are 6 chapters in this paper.

Chapter 1: Introduction. The chapter includes the research background, its purpose, methods of research, framework the paper is written and its main innovations.

Chapter 2: Literature review. The chapter is based on the related studies on top executives’ turnover in post-acquisition integration processes.

Chapter 3: Theoretical perspectives. The chapter provides the theoretical background for this paper.

Chapter 4: Variables and data. The chapter introduces the data set and covers definitions of variables and their descriptive statistics.

Chapter 5: Empirical research. The chapter introduces the model, explains the steps of the conducted empirical analysis and provides the results.

Chapter 6: Conclusion. The chapter provides the conclusion of the paper, its limitations and suggests prospects for the further research on this topic.
1.4. Innovation of the paper

The main innovation of this paper is the fact that the research includes the individual aspect which might influence on the decision to retain the CEO of the target after it has been acquired by a larger international company which has almost not been studied previously.

I focus on whether or not CEO replacement/retention is more likely or less likely in cross-border acquisitions and how this relation is moderated by such individual characteristics of the CEO as age, tenure, CEO being the founder, multiple roles and education.

I believe that the finding of this paper will provide a good contribution to the existing literature on human capital perspective and will shed some light on how the unique portfolio of skills possessed by CEOs might have influence on their departure rates on post-acquisition integration processes and how it differs between cross-border and domestic acquisitions.
2. Literature review

For almost three decades, researchers have been investigating why senior executives leave after their companies get acquired.

There are very few studies on post-merger integration processes and particularly, investigating the effects of mergers and acquisitions on subsequent target company top management turnover, until the late 1980s.

Moreover, over the past decades the characteristics of mergers and acquisitions in general have changed dramatically.

In 1980s they were generally represented by hostile takeovers and tender offer transactions. Since 1990s mergers and acquisitions became more synergistic and have started being conducted in a friendly manner involving negotiations between two parties (Andrade, Mitchell and Stafford, 2001). During the same time period the labor market for CEOs became more active, which led to higher turnover rates, lower tenure and CEOs became more commonly replaced by externals (Himmelberg, Hobbard, 2002; Huson, Parrino, Starks, 2001). This trend made 1990s an interesting period to explore top management teams of the targets in post-acquisition integration processes from different perspectives and boosted a high number of scientific researches on this topic.

Although the topic of the departed executives in post-acquisition integration processes has been investigated quite a lot since then, the specific factors which influence the turnover rates are still not well understood.

One of the motivations of the acquirer is typically to obtain assets which are underutilized and then to replace the managers with those who can extract more value. However, some researchers have argued that the acquired executives are crucial resources: they are not easily replaceable and their
departure causes significant social and decision-making issues resulting in the acquisition of a less value (Pitts 1976; Scherer 1986; Trautwein 1990).

Nevertheless, the empirical evidence shows that the top management turnover in post-merger processes is significantly higher than “normal” (Walsch, 1988, 1989).

Hayes and Hoag (1974) have found that 58 per cent of the acquired executives they studied left the acquired firms within 5 years. According to Hayes (1979), who studied 200 acquisitions made by Fortune 500 companies, 58 per cent of the top managers departed from the merged entity during 5 years after the merger.

Another study a decade later indicated that 61 per cent of acquired executives depart within 5 years, comparing to 33 percent in non-acquired companies (Walsch, 1988, 1989).

In the 1990s many studies were focused on analyzing the relation between target management retention and different measures of company’s performance. Canella and Hambrick (1993) found evidence that post-acquisition performance and retention of target management is positively correlated. One of the intriguing facts in their research was the significant departure rates in the fourth year after acquisition. They found that the friendliness of a merger has a downward influence on departure rates and that direct status bestowal which is negatively correlated with the departure rates in early years after the acquisition has a positive effect in the fourth year. It can indicate that some acquired executives are treated respectfully until an acquisition gets stabilized and the integration is complete, and then they are released. This pattern has been earlier mentioned by Siehl and colleagues (1990) and described as a part of their “love and marriage” metaphor.
Walsch and Ellwood (1991) adopted the resource based view in their research, stating that a merger or an acquisition can be a way to improve competitive advantage of a company and add target executives to the acquirer's resources.

In other words, target executives can be valuable assets, not liabilities. This idea was consistent with an earlier research by Parsons and Baumgartner (1970) who believed that a parent company’s intent is often to acquire and successfully integrate the top management team of the target. In some cases it can be even the key reason for the acquisition.

The study of Matsusaka (1993) supported the idea that for some acquirers the target's management is a key resource acquired and finds positive effects when acquirers retain top management team of the target company and negative ones when it replaces it.

Drucker (1981) pointed out five rules for successful acquisitions including the one that states that a parent company should be ready to provide the target company with a new top management team within one year after the acquisition is complete and that it should be prepared for the widespread turnover within the top management team of the target. Later this idea was supported by empirical findings that the parent company should be ready to face a management turnover which is twelve times higher than a “normal” one, but only one quarter of the top management team turns over within the first year after the acquisition (Walsch, 1988).

In general, top management turnover in post-merger processes can be explained by three different forces. First, mergers and acquisitions create uncertainty among top managers (Simmons, 1984), and managers who are not able to handle uncertainty are more likely to depart. Second, mergers and acquisitions can create a “culture shock” due to the cultural differences between the merged entities, and managers who are unwilling or not able to
adapt, are most likely to leave the organization (Buono, Bowditch and Lewis, 1985).

Finally, mergers and acquisitions produce an environment where companies compete for corporate control to determine the management team of the target. In case this competition creates clear winners or losers, it can result in a widespread turnover in the top management of the target (Fama and Jensen, 1983).

Top managers of the targets are usually concerned regarding the impact of a merger or an acquisition on their own lives and careers (Bennett, 1986). A great role in it is played by the merger and acquisitions negotiations which affect the willingness and ability of the top management teams to work together in the combined company (Fisher and Ury, 1981).

Some of them can express obvious intention of the acquirer to get rid of the incompetent top managers of the target. Nevertheless, some negotiations can be led in a friendly manner. Walsch (1989) investigated whether these negotiations are related to the different top management turnover rates and concluded that while his findings contain some correlational support for many of the proposed relationships between the assessed properties of the merger and acquisition negotiations and subsequent target company top management turnover, the merger and acquisition negotiations fall short of explaining a good deal of subsequent target company top management turnover.
3. Theoretical perspectives

There are three main theoretical perspectives on post-acquisition top management executives’ departure: market discipline, relative standing and human capital perspective.

The market discipline perspective is focused on the previous performance of the acquired firm and according to it, those executives who used to perform poorly, are more likely to leave after the company completes the acquisition process (Walsh and Ellwood, 1991).

The term of relevant standing, or local social status, was initially introduced by Frank (1985). The idea is that in case it is low for acquired executives, they feel inferior and the acquirer sees them as inferior, themselves - superior, autonomy and social status is removed and the rate of departed executives is higher. Conversely, when relative standing is high, the turnover of the target executives is lower.

Canella and Hambrick (1993) developed a new explanation for the theory of relative standing and their results generally supported this theory. Their empirical results showed that the worse the pre-acquisition performance of the acquired firm is, the higher is the rate of the executive departure. Nevertheless, the performance of the acquiring firm was additionally predictive: where the gap in performance of the target and the parent company is large, acquired executives are particularly likely to depart. It can possibly be explained by their self-doubts about their capabilities and prospects in the combined firm, denigration, status degradation and outright dismissal.

From the managerial human capital perspective, human capital is crucial for the firm’s ability to generate rents and create long-term competitive advantage (Barney, 1991; Castanias and Helfat, 1991). It suggests that the
unique portfolio of skills, knowledge and resources possessed by a CEO can explain both the CEO’s choice to stay or depart and the acquirer’s willing to retain the CEO. Since it would be an important strategic decision for both, the CEO (to leave a top management position) and the acquirer (important performance implications for the company), the decision to leave should include a very careful assessment of the portfolio of skills and knowledge the CEO has (Burchholtz, Ribbens, Houle, 2003).

Wulf and Singh (2008) investigated the conditions under which target CEOs and directors are retained in a sample of mergers and acquisitions (1994-1998) and found evidence which was broadly consistent with the managerial human capital perspective: better-performing managers are more likely to be retained.

Moreover, in their research they studied the importance of corporate governance in post-acquisition processes and found out that rent-generating target CEOs agree to stay when the governance of the acquired company creates an environment protecting firm-specific human capital investments.

The individual characteristics that might have the most significant influence on the CEOs departure in post-acquisition integration processes according to the previous empirical findings are provided below:

**Age**

Several authors have studied the age as one of the important indicators of CEO post-acquisition departure. Sonnenfeld found that the middle-aged executives often face a problem of a “painful and profound reorientation in time” and start seeing how little time remains, which will more likely result in them being willing to stay with the acquired company (Sonnenfeld, 1988). Canella and Hambrick (1993) found that executive age was positively related to departure, probably indicating actuarial phenomena such as illnesses, deaths, mandatory retirements, as well as a relative readiness among older executives
to finish their career rather than deal with post-acquisition tensions. These finding are consistent with the research by Buchholtz, Ribbens, Houle which supports the idea that the rate of the post-acquisition departure is the greatest for the oldest and youngest CEOs and the lowest for middle-aged CEOs (Buchholtz, Ribbens, Houle, 2003). The human capital perspective provides an explanation for these results: youngest CEOs can relocate easily; their fear of potential job loss is smaller since their investments in specific human capital are relatively low. Oldest CEOs are also quite unthreatened by the idea of potential departure since they have few years remaining and, consequently, little to lose in regards to future returns (D’Aveni and Kesner, 1993).

_Hypothesis 1: Younger and older CEOs are more likely to depart after an acquisition event._ I have included two variables indicating the age of the CEO at the moment of an acquisition event and its square in my model.

**Tenure**

Another characteristic of the CEO which might have an influence on the CEO’s retention is tenure. Nevertheless, it was suggested that once the acquisition takes place, this investment in firm-specific human capital can lose its value due to several reasons. Firstly, different expertise might be needed after the takeover. Secondly, another executive in the acquiring company might possess similar qualifications. Moreover, the new owners might not relate the CEO’s value to the successful performance of the acquired firm (Coffee, 1988). Finally, it can be due to the embeddedness of the CEO, which develops with tenure, so that it can become much more difficult to integrate the acquired firm and will lead to a greater pressure on the acquirer to cause the CEO’s departure (Lee and Alexander, 1998).

At the same time long tenure can motivate the CEO to leave voluntarily. The longer the person has been with the company the more firm-specific human
capital and psychological investments he has made (Williamson, 1985). Consequently, his commitment is getting higher within time and it gets more difficult for him to accept the changes which happen after the takeover is completed.

**Hypothesis 2:** A longer tenure of the CEOs in the target company and being on the position of a CEO will result in a higher departure rate after an acquisition event. I have included two variables indicating the tenure of the CEO in the target and the tenure of being the CEO there in my model.

**Years of prior work experience**

CEOs with more years of work experience are able to retain their positions longer (Kesner and Sebora, 1994). According to human capital theory (Becker, 1964; Caroll and Mosakowski, 1987), direct work experience provides skills which are not easy to gain by other means. By experiencing multiple roles in multiple organizations, executives build a unique expertise including operational best practices and skills, applicable to the entrepreneurial settings (Dobrev and Barnett, 1999). Consequently, the fewer people possess specific skills of a given CEO, the more the company will value this executive (Frederiksson, Hambrick and Baumrin, 1988).

**Hypothesis 3:** The longer the overall tenure of the CEO is the lower is the departure rate after an acquisition event. I have included one variable indicating the overall tenure of the CEO in my model.

**Multiple roles and board memberships**

Another characteristic which can be associated with the CEO turnover is multiple roles and board memberships since it can be an indicator of the strength of the CEO’s social networks (Phan and Lee, 1995).

**Hypothesis 4:** Holding multiple roles in the target can result in lower departure rate after an acquisition event. I have included one dummy variable for multiple roles in my model.
**CEO – founder**

The fact if the CEO of a target company is also its founder can influence the decision of his retention significantly. In contrast to the managers who join the company after its founding, the identity of the founders is significantly linked to that of the organization (Dobrev and Barnett, 1999).

Founders create and follow the vision, attract employees, develop products based on this vision and accomplish the managerial tasks critical to grow and establish the business (Wasserman, 2003). Usually they own a large percentage of the company shares (Wasserman, 2001), and principal-agent problem which is a common issue in larger companies, does not exist there to the same extent.

In larger companies the board of directors is usually more likely to appoint an inside CEO, if the company has not experienced a serious under-performance (Mace, 1971; Dalton and Kesner, 1983). Therefore, the acquirer will more likely let the target’s CEO go in case they decide to make some significant changes in the organization and/or to change the strategies of the target company on the market.

As it was revealed in the literature, if the CEO-founder and is young and inexperienced, there may be a high chance that the acquirer will not have enough confidence in him and consequently decide to replace him with a person holding a higher expertise. But in case the founder-CEO has a longer successful track record, it can give the acquirer more trust and confidence in him.

Hypothesis 5: A fact that CEO is a founder will lead to a higher departure rate in post-acquisition processes. I included one dummy variable for it in my model.
Executive turnover in cross-border acquisitions

Findings suggest that the executive turnover is intensified in cross-border acquisitions (Krug, 2009). That means that executives depart at a higher rate over time in firms that are acquired by foreign multinational companies.

The main difference between foreign and domestic mergers and acquisitions is the timing of such a turnover. If in domestic acquisitions turnover happens mostly in the first two years after the acquisition event, in cross-border acquisition it is more likely to happen later, up to 5-6 years after the acquisition event. It can be explained by the fact that in cross-border acquisitions foreign acquirers face integration of the company that is not only geographically more distant, but is also culturally different, and for this reason they are more reluctant to make significant strategic and organizational changes immediately after the acquisition event.

Nevertheless, there is a tendency for the acquired executives to depart more quickly in case the acquirer has previously made acquisitions in their country, due to accumulation of integration experience and cultural knowledge that can give him confidence of integrating subsequent acquired firms using their own executives. Meanwhile they also accumulate an exceptional knowledge of managing cultural differences that can encourage some target executives to stay.

Hypothesis 6a: Cross-border acquisitions will have a lower CEO turnover rate within the first year after an acquisition event comparing to the domestic ones.

Hypothesis 6b: In cross-border acquisitions CEO turnover rate within three years after an acquisition event will be higher comparing to the turnover rate within one year.

I have included one dummy variable indicating if the acquisitions were domestic or cross-border in my model.
As I am interested to investigate how this relation is moderated by individual characteristics as well, I include the last hypothesis:

*Hypothesis 7: The individual characteristics moderated by cross-border factor will have a significant impact consistent with Hypothesis 1-6.*
4. Variables and data

4.1. Data sources

The dataset sample used in the empirical part of this paper included the information on 429 technology acquisitions, which can be defined as acquisitions of a small technology-based firm by a large established firm to obtain access to its technology and capabilities (Granstrand and Sjolander 1990, Puranam and Srikanth 2007, Puranam, Singh and Chaudhuri 2009).

Acquisition events were identified from SDC Platinum and Zephyr with the announcement dates in period from 01 January 2001 until 31 December 2005. The analysis is bound to high-technology industries, that definition of which conforms to the definition offered by OECD (1997) with the exclusion of aerospace and defense, which is excluded due to the fact that few firms in Europe operate in this industry.

Therefore, an acquisition event was characterized as a high-technology acquisition if:

- acquired firms operated (primary or secondary SIC codes) in one of the following industries: Drugs (SIC 283), Computer and Office Equipment (SIC 357), Electronic and other electrical equipment and components except computer equipment (SIC 36), Instruments (SIC 38) and Computer programming (737);

- the headquarters of the acquirer and acquired firm were located in European Union or United States;

- acquiring firms were public companies;

- acquired firms had less than 1000 employees, while acquiring firms had more than 1000 employees at the time of acquisition;
- acquisitions were restricted to completed deals after which acquiring firm owned more the 50% of target.

In the second step, I collected articles published on these acquisitions from Lexis Nexis, corporate websites and different online business press and collected the data on the status of acquired firm in respect to structural integration and acquired CEO retention.

In the third step, I collected the CVs and biographies of the CEOs that worked in the target companies in the year when it was acquired with the use of LinkedIn, Capital IQ, Bloomberg Business Week and corporate websites. In certain cases if available, Wikipedia and personal websites were used.

In total 310 CVs we retrieved from LinkedIn, 246 biographies - from Capital IQ, 172 biographies - from Bloomberg and there were 101 cases of using other information sources for retrieving individual information.

Finally, we retrieved individual characteristics of the CEOs we were interested in and completed the data set.

In total I contributed to the data collection by retrieving and coding the data on 171 acquisition events and individual characteristics of the corresponding CEOs.

4.2 Variables and descriptive statistics

The variables the data for which was retrieved are presented in the table below.
### Table 1 List of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables:</strong></td>
<td></td>
</tr>
<tr>
<td>ind_rep</td>
<td>The departure of the CEO within the first year after an acquisition event (1= has departed; 0=has been retained)</td>
</tr>
<tr>
<td>ind_rep_3</td>
<td>The departure of the CEO within 3 years after an acquisition event (1= has departed; 0=has been retained)</td>
</tr>
<tr>
<td><strong>Explanatory variables:</strong></td>
<td></td>
</tr>
<tr>
<td>cross_c</td>
<td>Indication if an acquisition was cross-border or domestic (1=domestic; 0=otherwise)</td>
</tr>
<tr>
<td>age_acq</td>
<td>Age of the CEOs at the moment of an acquisition event</td>
</tr>
<tr>
<td>found</td>
<td>The individual is or not one of the target’s founders (1=founder; 0=otherwise)</td>
</tr>
<tr>
<td>tenure_targ</td>
<td>Tenure of the CEO in the target company</td>
</tr>
<tr>
<td>tenure_ceo</td>
<td>Tenure of the CEO as the CEO in the target company</td>
</tr>
<tr>
<td>tenure_tot</td>
<td>Overall tenure of the CEO since the first job reported</td>
</tr>
<tr>
<td>roles_mult</td>
<td>If the CEO had multiple roles at the moment of the acquisition event (1=multiple roles; 0=otherwise)</td>
</tr>
<tr>
<td><strong>Control variables:</strong></td>
<td></td>
</tr>
<tr>
<td>bs</td>
<td>The individual holds or not a Bachelor degree (1=holds the degree; 0= otherwise)</td>
</tr>
<tr>
<td>ms</td>
<td>The individual holds or not a Master degree (1=holds the degree; 0= otherwise)</td>
</tr>
<tr>
<td>phd</td>
<td>The individual holds or not a PhD degree (1=holds the degree; 0= otherwise)</td>
</tr>
<tr>
<td>mba</td>
<td>The individual holds or not an MBA degree (1=holds the degree; 0= otherwise)</td>
</tr>
<tr>
<td>instruments</td>
<td>Target industry: instruments (1=target belongs to 38 primary US SIC codes; 0=otherwise)</td>
</tr>
<tr>
<td>el_equipment</td>
<td>Target industry: electronic and electrical equipment (1=target belongs to 357 primary US SIC codes; 0=otherwise)</td>
</tr>
<tr>
<td>drugs</td>
<td>Target industry: drugs (1=target belongs to 283 primary US SIC codes; 0=otherwise)</td>
</tr>
<tr>
<td>comp_office</td>
<td>Target industry: computer and office equipment (1=target belongs to 36 primary US SIC codes; 0=otherwise)</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>software</strong></td>
<td>Target industry: computer programming (1=target belongs to 737 primary US SIC codes; 0=otherwise)</td>
</tr>
<tr>
<td><strong>tenure_tot_c</strong></td>
<td>Interaction variable that captures a joint effect of cross-border factor and CEO total tenure</td>
</tr>
<tr>
<td><strong>roles_mult_c</strong></td>
<td>Interaction variable that captures a joint effect of cross-border factor and CEO having multiple roles</td>
</tr>
</tbody>
</table>

I chose two dependent variables that indicate the CEO turnover within one year and three years after an acquisition event due to the fact that most previous studies on top management turnover used that time frame to catch the affects of an acquisition on the top management departure.

The choice of the explanatory variables was based on the previous studies as well, and I also decided to include the control variables that indicate target CEOs education and target industry, that as I think might have impact on CEO turnover in post-acquisition processes. Moreover, I also included two interaction variables that were found to be significant while testing models that included the original explanatory variables and CEO turnover in both timeframes as dependent variables.

In total the data set represents 429 deals, out of which 120 are cross-border.

The acquisitions were classified by 5 different industries: instruments (40 cases or 9.32%), electronic and other electrical equipment except computer equipment (49 cases or 11.42%), drugs (40 cases or 9.32%), computer and office equipment (16 cases or 3.73%) and computer programming (284 cases or 66.20%).

The announcements and completion of the acquisitions happened between 2001 and 2007.
The target companies were founded between 1953 and 2000 and have from 5 to 1,000 employees. The acquirers were founded between 1847 and 2002 and employ from 1,000 to 417,000 people.

The descriptive statistics of the variables used for the research can be found in the table below.

Table 2 Descriptive statistics of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>cross_c</td>
<td>429</td>
<td>0.720</td>
<td>0.449</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>age_acq</td>
<td>353</td>
<td>47.360</td>
<td>8.500</td>
<td>28</td>
<td>86</td>
</tr>
<tr>
<td>found</td>
<td>428</td>
<td>0.383</td>
<td>0.487</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>tenure_targ</td>
<td>412</td>
<td>7.165</td>
<td>5.915</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>tenure_ceo</td>
<td>407</td>
<td>6.405</td>
<td>5.451</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>tenure_tot</td>
<td>283</td>
<td>17.601</td>
<td>7.568</td>
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<tr>
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<tr>
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<td>bs</td>
<td>381</td>
<td>0.990</td>
<td>0.102</td>
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</tr>
<tr>
<td>ms</td>
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<td>0.330</td>
<td>0.471</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
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<td>378</td>
<td>0.132</td>
<td>0.339</td>
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<td>1</td>
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<tr>
<td>mba</td>
<td>379</td>
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<td>0</td>
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<tr>
<td>instruments</td>
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<td>0.291</td>
<td>0</td>
<td>1</td>
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<tr>
<td>drugs</td>
<td>429</td>
<td>0.093</td>
<td>0.291</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>comp_office</td>
<td>429</td>
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<td>0.190</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>software</td>
<td>429</td>
<td>0.662</td>
<td>0.474</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
The considered acquired CEOs are represented by 16 females and 413 males and almost 90% of them are reported to have Bachelor’s degree. I have decided to omit these variables from my empirical model due to the fact that they do not vary across the observations and the 10% of the CEOs for whom the Bachelor’s degree was not reported probably had it but the information was not available in the sources that were used to collect the data for the research.

The correlation coefficients between the variables used for the research are provided in the table below.

**Table 3 Correlation table of the variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>cross_c</th>
<th>age_acq</th>
<th>age_acq2</th>
<th>tenure_tot</th>
<th>tenure_target</th>
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</tr>
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<td>age_acq2</td>
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<td>0.994</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tenure_tot</td>
<td>0.146</td>
<td>0.568</td>
<td>0.549</td>
<td>1.000</td>
<td></td>
</tr>
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<td>0.201</td>
<td>0.265</td>
<td>1.000</td>
</tr>
<tr>
<td>tenure_ceo</td>
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<td>0.127</td>
<td>0.123</td>
<td>0.216</td>
<td>0.895</td>
</tr>
<tr>
<td>found</td>
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<td>-0.222</td>
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<td>0.409</td>
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</tr>
<tr>
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<td>0.099</td>
<td>0.059</td>
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<tr>
<td>mba</td>
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<td>0.076</td>
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<td>instruments</td>
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<td>0.115</td>
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<td>0.063</td>
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<td>0.090</td>
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<tr>
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<tr>
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<tr>
<td>software</td>
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<td>-0.145</td>
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<td>tenure_tot_c</td>
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<td>0.665</td>
<td>0.053</td>
</tr>
<tr>
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<td>0.280</td>
<td>0.272</td>
<td>0.153</td>
<td>-0.066</td>
</tr>
<tr>
<td></td>
<td>tenure_ceo</td>
<td>found</td>
<td>roles_mult</td>
<td>ms</td>
<td>phd</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>-------</td>
<td>------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>tenure_ceo</td>
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<td>found</td>
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<tr>
<td>ms</td>
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<td>1.000</td>
</tr>
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<td>-0.095</td>
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<tr>
<td>el_equipment</td>
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<td>-0.073</td>
<td>0.050</td>
<td>-0.032</td>
</tr>
<tr>
<td>drugs</td>
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<td>-0.040</td>
<td>0.016</td>
<td>0.067</td>
<td>0.348</td>
</tr>
<tr>
<td>comp_office</td>
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<td>0.006</td>
<td>0.005</td>
<td>-0.077</td>
<td>-0.065</td>
</tr>
<tr>
<td>software</td>
<td>-0.026</td>
<td>0.104</td>
<td>-0.012</td>
<td>-0.069</td>
<td>-0.098</td>
</tr>
<tr>
<td>tenure_tot_c</td>
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<td>-0.069</td>
<td>0.308</td>
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<td>-0.007</td>
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<td>-0.101</td>
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</table>

<table>
<thead>
<tr>
<th></th>
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<th>instrum</th>
<th>el_equip</th>
<th>drugs</th>
<th>comp_off</th>
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<td>mba</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>instrum</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>el_equipment</td>
<td>-0.074</td>
<td>-0.090</td>
<td>1.000</td>
<td></td>
<td></td>
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<tr>
<td>drugs</td>
<td>-0.136</td>
<td>-0.063</td>
<td>-0.098</td>
<td>1.000</td>
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<tr>
<td>comp_office</td>
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<td>-0.047</td>
<td>-0.073</td>
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</tr>
<tr>
<td>software</td>
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<tr>
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<tr>
<td>roles_mult_c</td>
<td>0.234</td>
<td>0.029</td>
<td>-0.086</td>
<td>-0.049</td>
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<table>
<thead>
<tr>
<th></th>
<th>software</th>
<th>tenure</th>
<th>roles_mult</th>
</tr>
</thead>
<tbody>
<tr>
<td>software</td>
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<td></td>
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<tr>
<td>tenure_tot_c</td>
<td>0.052</td>
<td>1.000</td>
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<tr>
<td>roles_mult_c</td>
<td>0.079</td>
<td>0.532</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The CEOs in the sample were between 28 and 86 years old on the moment of acquisition event. 164 CEOs (38.32%) were also the founders of the target companies. 252 CEOs (58.74%) from the sample had multiple roles (such as Board memberships and Presidency).

The education information was coded as dummy variables (0 - in case a person did not have a degree, 1 - in case he obtained a degree, empty cell – in case the information was not available). Moreover, the degree was categorized in 6 different fields of studies: 1 - Natural Science, 2 - Formal Science, 3 - Information Engineering, 4 - Business and Economics, 5 – Industrial Engineering, 6 - Arts and Humanities.
As a result, I have following information regarding the target CEOs education:

Table 4  Education of the CEOs considered for the empirical analysis of this paper

<table>
<thead>
<tr>
<th>Fields of studies</th>
<th>Bachelor's Degree</th>
<th>Master's Degree</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Natural Science</td>
<td>39 (12.91%)</td>
<td>14 (4.14%)</td>
<td>21 (45.65%)</td>
</tr>
<tr>
<td>2 – Formal Science</td>
<td>44 (14.57%)</td>
<td>18 (4.14%)</td>
<td>2 (4.35%)</td>
</tr>
<tr>
<td>3 – Information Engineering</td>
<td>68 (22.52%)</td>
<td>29 (8.58%)</td>
<td>6 (13.04%)</td>
</tr>
<tr>
<td>4 – Business and Economics</td>
<td>90 (29.80%)</td>
<td>17 (5.03%)</td>
<td>4 (8.70%)</td>
</tr>
<tr>
<td>5 – Industrial Engineering</td>
<td>23 (7.62%)</td>
<td>23 (6.80%)</td>
<td>2 (4.35%)</td>
</tr>
<tr>
<td>6 – Arts and Humanities</td>
<td>38 (12.58%)</td>
<td>12 (3.55%)</td>
<td>11 (23.91%)</td>
</tr>
<tr>
<td>Total number of CEOs the degree was categorized</td>
<td>302 (100%)</td>
<td>113 (100%)</td>
<td>46 (100%)</td>
</tr>
<tr>
<td>Total number of CEOs holding the degree as reported</td>
<td>377</td>
<td>119</td>
<td>50</td>
</tr>
</tbody>
</table>

Moreover, 111 target CEOs (29.29%) held an MBA.
5. Empirical analysis

5.1. Building the model

Due to the fact that both dependent variables are represented by dummies that indicate whether the CEOs departed within the first year and three years after the acquisition event, I chose a logistic model for the empirical part of the research.

As mentioned before, my choice of dependent and explanatory variables for the model was based on the previous studies on top management turnover in post-acquisition integration processes, while the control variables were chosen based on my initiative to see if education and industry type might have an impact on the CEO turnover in post-acquisition processes as well. Moreover, I decided to include two interaction variables that were found to be significant while testing models that included the original explanatory variables and CEOs turnover in both timeframes as dependent variables: these variables capture effects of cross-border factor and total tenure and multiple roles separately.

Due to high correlation between some variables, I divided my empirical model into nine different ones:

First three have the dependent variable indicating the departure of the CEOs within the first year after an acquisition event:

\[
\text{logit}(\text{ind_rep}) = \alpha + \beta_1(\text{cross}_c) + \beta_2(\text{age_acq}) + \beta_3(\text{age_acq2}) + \beta_4(\text{tenure_ceo}) + \beta_5(\text{roles_mult}) + \beta_6(\text{ms}) + \beta_7(\text{phd}) + \beta_8(\text{mba}) + \beta_9(\text{instruments}) + \beta_{10}(\text{el_equipment}) + \beta_{11}(\text{drugs}) + \beta_{12}(\text{comp_office}) + \beta_{13}(\text{software}) + \beta_{14}(\text{roles_mult}_c) \tag{1}
\]

\[
\text{logit}(\text{ind_rep}) = \alpha + \beta_1(\text{cross}_c) + \beta_2(\text{age_acq}) + \beta_3(\text{age_acq2}) + \beta_4(\text{tenure_targ}) + \beta_5(\text{roles_mult}) + \beta_6(\text{ms}) + \beta_7(\text{phd}) + \beta_8(\text{mba}) + \beta_9(\text{instruments}) + \beta_{10}(\text{el_equipment}) + \beta_{11}(\text{drugs}) + \beta_{12}(\text{comp_office}) + \beta_{13}(\text{software}) + \beta_{14}(\text{roles_mult}_c) \tag{2}
\]
\( \beta_{10}(el\_equipment) + \beta_{11}(drugs) + \beta_{12}(comp\_office) + \beta_{13} \) (software) + \( \beta_{14}(roles\_mult\_c) \) (2)

\[
\text{logit(ind\_rep)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(age\_acq) + \beta_{3}(age\_acq2) + \beta_{4}(found) + \beta_{5}(roles\_mult) + \beta_{6}(ms) + \beta_{7}(phd) + \beta_{8}(mba) + \beta_{9}(instruments) + \beta_{10}(el\_equipment) + \beta_{11}(drugs) + \beta_{12}(comp\_office) + \beta_{13} \) (software) + \( \beta_{14}(roles\_mult\_c) \) (3)

I have also tested models that would include the interaction variable for total tenure of the CEOs and cross-border factor, but they were found to be statistically insignificant.

Other six models that I used have the dependent variable indicating the departure of the CEOs within three years after an acquisition event are:

\[
\text{logit(ind\_rep\_3)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(tenure\_tot) + \beta_{3}(found) + \beta_{4}(roles\_mult) + \beta_{5}(instruments) + \beta_{6}(el\_equipment) + \beta_{7}(drugs) + \beta_{8}(comp\_office) + \beta_{9} \) (software) + \( \beta_{10}(roles\_mult\_c) \) (4)

\[
\text{logit(ind\_rep\_3)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(tenure\_tot) + \beta_{3}(tenure\_ceo) + \beta_{4}(roles\_mult) + \beta_{5}(instruments) + \beta_{6}(el\_equipment) + \beta_{7}(drugs) + \beta_{8}(comp\_office) + \beta_{9} \) (software) + \( \beta_{10}(roles\_mult\_c) \) (5)

\[
\text{logit(ind\_rep\_3)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(tenure\_tot) + \beta_{3}(tenure\_targ) + \beta_{4}(roles\_mult) + \beta_{5}(instruments) + \beta_{6}(el\_equipment) + \beta_{7}(drugs) + \beta_{8}(comp\_office) + \beta_{9} \) (software) + \( \beta_{10}(roles\_mult\_c) \) (6)

\[
\text{logit(ind\_rep\_3)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(tenure\_tot) + \beta_{3}(found) + \beta_{4}(roles\_mult) + \beta_{5}(instruments) + \beta_{6}(el\_equipment) + \beta_{7}(drugs) + \beta_{8}(comp\_office) + \beta_{9} \) (software) + \( \beta_{10}(tenure\_tot\_c) \) (7)

\[
\text{logit(ind\_rep\_3)} = \alpha + \beta_{1}(cross\_c) + \beta_{2}(tenure\_tot) + \beta_{3}(tenure\_ceo) + \beta_{4}(roles\_mult) + \beta_{5}(instruments) + \beta_{6}(el\_equipment) + \beta_{7}(drugs) + \beta_{8}(comp\_office) + \beta_{9} \) (software) + \( \beta_{10}(tenure\_tot\_c) \) (8)
logit(ind_rep_3) = α + β₁(cross_c) + β₂(tenure_tot) + β₃(tenure_targ) +
β₄(roles_mult) + β₅(instruments) + β₆(el_equipment) + β₇(drugs) +
β₈(comp_office) + β₉/software) + β₁₀(tenure_tot_c) (9)

Since I had missing values in the data set, I used the method of multiple
imputations in order to impute missing values for the variable indicating the
overall tenure of the target CEOs.

5.2. Empirical results

The findings show that 39.16% of the target CEOs from my sample departed
within one year, and 65.73% percent have left within three years after the
acquisition event.

While in domestic acquisitions the departure rate of the CEOs within the first
year is equal to 83.33%, in cross-border this rate is considerably smaller and
accounts to 16.67%.

When it comes to the CEO departure rate within three years after an
acquisition event, the departure rate in domestic acquisitions is 74.82%, while
in cross-border acquisitions it is equal to 25.18%.

The results on running the established logistic regression models can be
found in the tables below.
Table 5 Departure of the CEOs within one year after an acquisition event as a dependent variable

<table>
<thead>
<tr>
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<th>M (1)</th>
<th>M(2)</th>
<th>M(3)</th>
</tr>
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<tr>
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<td>318</td>
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<tr>
<td>P-value of the model</td>
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<td>0.010</td>
<td>0.016</td>
</tr>
<tr>
<td>cross_c</td>
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<td>3.300***</td>
<td>2.966***</td>
</tr>
<tr>
<td>age_acq</td>
<td>0.893</td>
<td>0.872</td>
<td>0.905</td>
</tr>
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<td>age_acq2</td>
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<td>1.002</td>
<td>1.002</td>
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<td>found</td>
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<td>-</td>
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<td>tenure_ceo</td>
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<td>roles_mult</td>
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</tr>
<tr>
<td>mba</td>
<td>0.640</td>
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<td>1.049</td>
<td>0.887</td>
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<td>roles_mult_c</td>
<td>0.619</td>
<td>0.589</td>
<td>0.629</td>
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</table>
Table 6 Departure of the CEOs within three years after an acquisition event as a dependent variable

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N of Obs</td>
<td>416</td>
<td>404</td>
<td>409</td>
<td>282</td>
<td>272</td>
<td>275</td>
</tr>
<tr>
<td>P-value of the model</td>
<td>0.045</td>
<td>0.030</td>
<td>0.033</td>
<td>0.016</td>
<td>0.008</td>
<td>0.006</td>
</tr>
<tr>
<td>cross_c</td>
<td>0.850</td>
<td>0.865</td>
<td>0.849</td>
<td>0.221*</td>
<td>0.191**</td>
<td>0.197**</td>
</tr>
<tr>
<td>found</td>
<td>0.989</td>
<td>-</td>
<td>-</td>
<td>0.968</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>tenure_tot</td>
<td>1.018</td>
<td>1.016</td>
<td>1.020</td>
<td>0.949</td>
<td>0.943</td>
<td>0.950</td>
</tr>
<tr>
<td>tenure_targ</td>
<td>-</td>
<td>-</td>
<td>0.988</td>
<td>-</td>
<td>-</td>
<td>0.979</td>
</tr>
<tr>
<td>tenure_ceo</td>
<td>-</td>
<td>1.003</td>
<td>-</td>
<td>-</td>
<td>0.996</td>
<td>-</td>
</tr>
<tr>
<td>roles_mult</td>
<td>0.543</td>
<td>0.575</td>
<td>0.577</td>
<td>1.387</td>
<td>1.539</td>
<td>1.511</td>
</tr>
<tr>
<td>instruments</td>
<td>0.432**</td>
<td>0.436**</td>
<td>0.437**</td>
<td>0.349</td>
<td>0.347</td>
<td>0.337</td>
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<tr>
<td>el_equipment</td>
<td>0.649</td>
<td>0.632</td>
<td>0.669</td>
<td>0.913</td>
<td>0.881</td>
<td>0.961</td>
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<tr>
<td>drugs</td>
<td>1.118</td>
<td>1.235</td>
<td>1.111</td>
<td>0.908</td>
<td>1.133</td>
<td>0.883</td>
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<tr>
<td>comp_office</td>
<td>0.435</td>
<td>0.380</td>
<td>0.374</td>
<td>0.283</td>
<td>0.221*</td>
<td>0.214**</td>
</tr>
<tr>
<td>tenure_tot_c</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.122***</td>
<td>1.131***</td>
<td>1.128***</td>
</tr>
<tr>
<td>roles_mult_c</td>
<td>2.949**</td>
<td>2.950**</td>
<td>2.880**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The columns indicate the models that were used for each dependent variable, indicating the executive turnover within the first year and three years after an acquisition event. The stars represent the significance level, so that * denotes significance at 4-5% level, ** indicates significance at 2-3% level and *** - 1% level.

Moreover, the results are divided into columns for each model that show the odds ratios for each explanatory variable. The variable indicating software industry was automatically omitted from all the models.
As we can see from both tables, all variables indicating individual characteristics of the CEOs were found to be insignificant in the model. Consequently, hypotheses 1-5 are not supported. A reason for it can be the fact that individual characteristics of the CEOs or industries per se do not have an impact on the CEO turnover in post-acquisition processes. There might be a more complex relationship between these variables, moderated by something that is not observed in the present paper.

The cross-border factor is found to be constantly significant in all three models for CEO departure within the first year after an acquisition event (Models 1-3) and three models for CEO departure within three years after an acquisition event (Models 7-9). According to the results, chances for the CEOs to depart are lower for the cases of cross-border acquisitions, than for the cases of domestic ones. Nevertheless, within time it increases. Consequently, hypotheses 6a and 6b are supported. These results are consistent with the previous studies (Krug, 2009) and can be explained by the fact that acquiring companies might be interested in retaining the target CEOs in order to conduct a more efficient integration of the companies and are reluctant to make significant organizational changes right after the acquisition event.

What was very interesting to find, is that interaction variables that capture the joint effect of cross-border factor and having multiple roles (Models 4-6) and overall tenure of the CEOs (Models 7-9) were found to be significant together with some industry dummies: instruments (Models 4-6) and computer and office equipment (Models 7-9) in the models for CEO departure within three years after an acquisition. Based on the calculated odds ratios, CEOs having multiple roles and a longer tenure have higher chances to depart within three years in case of domestic acquisitions. Moreover, working in the instruments industry and the industry related to computer and office equipment has a positive impact on the CEO turnover within three years as well. Consequently, hypothesis 7 is supported partially.
Conclusion

In this paper I tried to investigate whether or not CEO replacement is more likely or less likely to happen in cross-border acquisitions and how this relation is moderated by such individual characteristics of the CEO as age, tenure, CEO being the founder, multiple roles and education.

Using a sample of 429 acquisitions that occurred between 2001-2007, I ran nine logistic regression models displaying the CEO turnover within one year and three years after an acquisition event, with cross-border factor, CEOs’ age, and their tenure, being founders of the targets and having multiple roles as explanatory variables, education, industry types as control variables. Moreover, I decided to include two interaction variables that capture effects of cross-border factor and total tenure and having multiple roles in the target separately.

According to the received results, the cross-border factor was found to be significant for CEO turnover within one and three years after an acquisition occurred. CEO turnover happens at a considerably lower rate than in domestic ones, nevertheless, increasing within time. These finding are in line with the previous studies and can be explained by the fact the acquirer is reluctant to make significant strategic and organizational changes immediately after the acquisition event due to geographic distances and cultural differences.

While analyzing CEO turnover within three years after an acquisition, it was found that CEOs having multiple roles a longer tenure have higher chances to depart in case of domestic acquisitions. Moreover, working in the instruments industry and the industry related to computer and office equipment has a positive impact on the CEO turnover within three years as well.

Nevertheless, individual characteristics of the CEOs per se were not found to have an impact on the CEO turnover in post-acquisition processes. This may
be due to a more complex relationship between these variables, moderated by something that is not observed in the present paper. I believe it would be reasonable to investigate this relation further through adding to the empirical models some variables that would provide us with information about the type of an acquisition (for example, if it was friendly, or a target was acquired due to its bankruptcy), relatedness of the acquirer to the target. For example, if they have similar products and the acquirer has already the knowledge of such operations, he might not consider the CEO as a key asset to successful operations on that market and it could be a reason of the CEO’s departure. Meanwhile, if the acquirer makes an acquisition in order to get an access to the new technologies and new products, the CEO’s knowledge can be crucial.

In order to investigate deeper the impact of the cross-border factor, it would be interesting to see if the acquirer has already had any business in the country where the target is located.

While studying further the impact of CEO education, I believe it would be also interesting to add information on how it is related to the industry of the target and the acquirer.

Finally, it would be very interesting to see the relatedness of the previous work experience to the acquirer, not only the overall tenure. While collecting the data on the individual characteristics of the CEOs, I made an attempt to gather this information as well, but unfortunately for many individuals it was not available. Since LinkedIn was launched in 2003, and is getting more popular nowadays than in middle 2000s, there is a big chance that more information regarding careers of many operating senior executives will be available and scholars will be able to investigate impact of these individual characteristics as well.
Reference list


Wulf J. , H. Singh. 2008. When Are The CEOs and Directors “Assets” to Acquiring Firms? The Role of Ownership Structure and Governance. Can be found at: [http://www.pdfio.com/k-2048406.html#]