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Learning Effects in Swedish Firms: Determinants of the Likelihood and Performance of Cross-Border Acquisitions

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Abstract

Title:	Learning Effects in Swedish Firms: Determinants of the Likelihood and Performance of Cross-Border Acquisitions
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Keywords:	Cross-border acquisitions, learning from experience, likelihood, performance, organizational learning, industry momentum, joint ventures, CEO change, Sweden
Purpose:	Examine the effect of past acquisition experience, industry momentum, past acquisition performance, CEO change, joint ventures and cancelled transactions on the likelihood and performance of subsequent cross-border acquisitions made by Swedish listed companies.
Theoretical framework:	We investigate learning effects for acquiring companies by using an organizational learning theory framework.
Sample:	Acquisitions by 236 listed Swedish companies during 2004 to 2007 in 62 countries.
Methodology:	We use logit regression for the likelihood of subsequent international acquisitions and OLS regression for the performance of international acquisitions.
Conclusions:	Past acquisition experience has a significant positive effect on the likelihood of subsequent international acquisitions. More precisely, past acquisition experience in Sweden has a significant positive influence on the decision of Swedish companies to acquire in Northern Europe. Whereas experience in Sweden or in Northern Europe does not seem to be a driver of subsequent acquisitions in the rest of the world. Furthermore, host country experience has a stronger effect than international acquisition experience on subsequent acquisitions within that country. Industry momentum and no CEO change combined with previous acquisition experience have a positive significant influence on the likelihood of subsequent international acquisitions. A positive effect was also found for experience with joint ventures when tested together with past acquisition experience. Unfortunately, none of these variables could be shown to have a significant influence on the performance of subsequent cross-border acquisitions. Our thesis applied the concepts of previous researchers to Sweden and confirmed and extended their findings.

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1 Introduction

In this first chapter the background and problem discussion are introduced, followed by the purpose and research question of this study. Demarcations and an outline of this thesis are presented as well.

1.1 Background

Over the last couple of years, it has become increasingly important for firms to grow and to be present simultaneously on different markets. Different strategies are available to firms that wish to grow and expand the scope and scale of their activities. Companies can grow organically, through mergers and acquisitions[1], joint ventures or strategic alliances. Organic growth is growth through the existing activities of the firm. This can be achieved through higher sales with existing customers as well as through gaining new customers in existing markets. Furthermore, greenfield investments in new markets can be another way to grow organically. Those activities can be on the national and/or on the international level. However, they can be quite time consuming until the desired results are achieved. Growth through mergers and acquisitions (hereafter M&As) on the other hand can be a much faster, but also a less risky way to enter a foreign country (Gaughan, 2007). Indeed, it allows the firm to acquire an already established corporation in its home country or abroad which could explain why M&As have gained in popularity.

In the United States, 5,152 M&As took place in 1970 (Gaughan, 2007). In 2007, 7,687 acquisitions were made and in 2008, the number of acquisitions reached 8,271 (Reuters 3000 Xtra database). In Sweden for example, the number of M&As has increased rapidly over the last couple of years. In 2004, 93 acquisitions were made and by 2007, their number had augmented to 832 (Reuters 3000 Xtra database). This recent worldwide increase in the M&A activities can be explained by technological development and globalization but also by the consolidation and liberalization of industries (Shimizu et al. 2004).

Historically, there have been several M&A waves, with the fifth and most recent one characterized by the deals being more strategic and international than in the earlier waves. Also, the amounts involved in M&A deals have increased significantly over the years. In 1970, the total US dollar value paid for M&As in the United States was $16,414,900 and by 1989, this amount had increased to $221,085,100 (Gaughan, 2007). The rise of the amounts at stake in M&A transactions has increased the interest in taking a closer look at M&As.

The reasons for doing M&A transactions can differ. A firm might acquire another company in order to enter completely new markets or in order to bring its existing products to new potential customers. Acquisitions can also be driven by the will to gain new knowledge or by

[1] Note: in this thesis, the words acquisitions and M&As will be used interchangeably.

a belief that they will be value creating for the firm. Moreover, acquisitions might be motivated by strategic reasons such as an attempt by a supplier to secure the relationship with its foreign clients for example (Shimizu et al. 2004). Furthermore, acquisitions can be driven by nonfinancial reasons (Gaughan, 2007).

Acquisitions can take several different forms. They can be horizontal acquisitions implying that a company acquires its competitors. Another option is vertical acquisitions in which a firm can secure its access to input by acquiring a supplier or secure its sales by acquiring its clients. The last kind is conglomerates where a company acquires another one whose activities are completely unrelated to those of the acquiring firm (Gaughan, 2007).

The field of M&A is thus wide and varied and it is growing at a fast pace. To focus the research, one needs to investigate very specific areas of M&As.

1.2 Problem discussion

The majority of M&A activity still lies with companies in the same country. Between 2004 and 2007 only one out of three acquisitions by Swedish companies took place outside Sweden. Worldwide about 40% of the M&As are between companies from different countries (Hitt et al., 2001). While acquisitions were mainly made in the home country in the past, cross-border M&As have become more frequent with the last merger wave. Since these cross-border transactions have grown rapidly over the last years and academic research has not kept up with the development (Shimizu et al., 2004), it is worth to look at the drivers and determinants of M&As. This is especially true seeing that the knowledge on cross-border acquisitions is incomplete (Collins et al., 2009). Among the determinants of M&As are exogenous drivers such as industry consolidation and the liberalization of economies. Furthermore, technological development can be a source of pressure for companies to acquire or merge. (Arzac, 2008)

Acquiring companies and integrating them into an existing structure is a highly complex organizational process. Organizational theory suggests that companies will learn from their former experience and develop specific knowledge and skills (Crossan et al., 1999). This could help them to undertake the same actions such as acquisitions in the future since routines and competences have been established within the company. By repeatedly doing certain strategic actions such as M&As, the likelihood of undertaking these strategic actions in the future increases because the organization is able carry them out. The acquisition behavior of companies could therefore partly be explained by learning from past acquisitions (Amburgey & Miner, 1992).

Many elements come into play when companies do acquisitions, elements that influence the likelihood but also the performance of the deals. Learning should not only drive a firm to

acquire more in the future but also to do this more successfully. The performance of acquisitions should therefore be positively influenced by past learning.

A meta-analysis performed by King et al. in 2004, showed that the determinants of the performance are still unexplained as most studies focus on the same four factors to explain the performance of acquisitions without finding any significant and consistent results. These four factors are conglomerate acquisitions, acquisitions by a related firm, method of payment and prior acquisitions and none of these factors had any significant effect on the performance of acquisitions. The authors go as far as saying that the variables influencing the performance of acquisitions have not yet been specified. The field of the performance of M&As is thus incomplete and open for further research.

Taking into account the past failures to explain the performance of acquisitions, Stahl and Voigt (2003) recommend that the research should shift its focus from financial and strategic aspects to less tangible factors. Indeed other elements related to the integration of the acquired firm are just as important. For instance, the cultural differences such as different management styles can have an important impact on the performance of acquisitions (Stahl & Voigt, 2003).

M&As have been studied before and that from many different angles. Even if previous studies have already approached the determinants of subsequent acquisitions, we believe there is still room for further research. Our thesis will among others study the likelihood and performance of subsequent international acquisitions but it will do so hopefully more thoroughly than previous studies by including more independent variables and extra control variables. King et al. (2004) recommend that subsequent research should be based on past research models. This is why we are going to examine the performance of acquisitions while using previous frameworks in spite of past failures.

So far few studies have focused (to our knowledge) on the acquisition behavior of Swedish companies. Our research problem will therefore be to study the learning effects by investigating the determinants of the likelihood and performance of cross-border acquisitions by Swedish companies.

1.3 Purpose and research questions

Our aim with this thesis is to find the determinants of cross-border M&As by looking at features of companies that could be related to acquisitions. We want to add to the literature on learning in M&As by testing a number of hypotheses on Swedish companies. With that we are hoping to contribute to the existing literature in the field not only by examining Swedish companies more extensively but also by testing the relationship of a number of variables with the likelihood and performance of subsequent acquisitions. Our research will be focused on testing, among others, whether or not previous national or international experience, industrial

learning and the use of joint ventures by a company have an influence on its cross-border acquisition behavior and their performance.

We will examine how these two areas, likelihood of subsequent acquisitions and performance, are influenced by

1. the extent of experience with past domestic, international and host country acquisitions of a focal company,
2. learning in M&A in the industry of the focal company,
3. current joint ventures made by a firm,
4. performance of past acquisitions,
5. past cancelled acquisitions, and
6. a recent change in CEO combined with past acquisition experience.

One might question the interest in examining the determinants of the likelihood of subsequent acquisitions (especially seeing that it has already been done). Nevertheless, we chose to study it anyway as we believe there is a real interest in knowing whether a CEO change or joint ventures for example have any influence on such a variable. Also, our thesis will show whether the findings of previous research for American or Dutch companies for example, also hold for Swedish companies.

1.4 Demarcations

This thesis will be focused on the company level. We will look at *whether* a company makes acquisitions or not, instead of looking at *how* the firm makes them. Therefore, we will not study the characteristics of the deals such as the payment method (see Haleblian et al., 2006, for example), the purpose of the deal or whether it is a friendly or a hostile deal (as studied by Finkelstein and Haleblian, 2002). Also, we will neither study the relative size of the bidder compared to its target (as done by Haleblian et al., 2006, or Finkelstein and Haleblian, 2002, for example) nor will we study whether the deal leads to a horizontal or vertical diversification or to a conglomerate. The reason is that we would like to investigate the organizational learning process in the company, which should be less related to the before mentioned deal characteristics.

Furthermore, unlike Haleblian et al. (2006) who studied acquisitions in the banking industry only, we will consider acquisitions in all industries. We will thus not just consider acquisitions made in the same industry but also acquisitions made in a different industry than the one of the studied company. The industry in which the acquisition is made is thus not pertinent in our thesis since we are interested in whether a firm will learn about the M&A process itself. Nevertheless we will include an industry variable in order to study the industry momentum which will later be defined as a variable for collective learning and M&A activity in the industry.

Although we study acquisitions and joint ventures in our thesis, we do not want to test what a company's favored entry mode is or which method results in a better performance. Our investigation of performance focuses more on the issue if the company learned from prior acquisitions and joint ventures and if this is value creating from the shareholders' point of view.

Also, we will not investigate the integration process, employee resistance or other post-acquisition issues that might affect the value creation in the long term. The reason is that these are matters related to the organization of the company that influence the post-acquisition performance. We on the other hand focus our thesis on the pre-acquisition phase and more tangible data such as financial data and variables to describe a country's development. In addition, we are more interested in the market's reaction to the announcement then in the long term performance of the acquisition.

An often cited reason for doing a merger or acquisition is expected synergies (Gaughan, 2007). Although synergies do play an important role in the M&A activities, we have chosen not to study them explicitly in depth in this thesis. Instead, we chose to focus on the performance of acquisitions by looking at the performance of the stock around the announcement date. This measure could indeed reflect expected synergies. Our decision was strengthened by the claim by King et al. (2004) that the idea of synergy brings abstraction into the performance measures. Synergies are thus very hard to grasp and to define and more suitable for studies focused on post-acquisition performance such as Larsson & Finkelstein (1999). Using the stock performance as a measure focuses on the reaction to the acquisition in which we are interested.

1.5 Thesis outline

This thesis will be outlined like a research article more than a master thesis. This implies that this paper will, in the next section, continue with an overview of part of the existing research and will then go on with more precise theoretical points that will each time be followed by related hypotheses. We chose this structure as we think that it gives the reader a better understanding of our hypotheses.

Section 2 will cover our literature review and the development of our hypotheses. The methodology section (section 3) then discusses the sample data and our definitions of dependent, independent and control variables. Section 4 contains the descriptive statistics and empirical results to our hypotheses. This section is followed by a discussion of our results (section 5). Our thesis then ends with a conclusion section (section 6) that covers the limitations and contribution of our work as well as future research suggestions.

2 Literature review and theoretical framework

This section starts with a presentation of three studies in the field of M&As that are of major interest for our thesis work. It will be followed by an overview of additional existing literature that is of relevance for our thesis. Further on, a critical literature review will challenge this current research. After this review, a presentation of the hypotheses that will be tested in this thesis will be accompanied by theoretical aspects.

2.1 Learning effects in M&A transactions and empirical evidence

2.1.1 Overview of existing literature

The literature available on M&As is varied, however, a few articles have caught our interest and have inspired us as a basis for our thesis. For this reason, we are presenting the main ones shortly here so that the readers can understand the origin of parts of our ideas. The next section 2.2 will then develop those ideas and lead to our hypotheses.

Our main source of inspiration for this thesis is an article that was written by Collins, Holcomb, Certo, Hitt and Lester (2009). These authors have studied the learning effects of cross-border M&As. The purpose of their article is to determine which variables influence the likelihood of subsequent international acquisitions made by a firm. In order to establish this, they selected American S&P500 companies and examined their acquisitions in 65 countries. The authors used data regarding acquisitions made in the years 2000-2003 and they ran a logistic regression. Their main hypotheses are that the number of previous national and international acquisitions influences the likelihood of subsequent international acquisitions by the acquirer. Also, they made the hypothesis that international acquisitions have a bigger influence than national acquisitions on the likelihood of subsequent acquisitions. Collins et al. (2009) included many control variables such as return on assets (ROA), exchange rate, cultural distance and firm size. Their results show that prior domestic acquisition activity is statistically significant to explain subsequent international acquisitions. Previous international acquisition experience is also significantly correlated to subsequent international acquisitions. Collins et al. (2009) showed further that host country experience has a higher influence than international acquisition experience.

Another article of major interest for our thesis is an article written by Haleblian, Kim and Rajagopalan (2006), that studies the organizational learning gained by banks through acquisitions. Their article also focuses on the effects of variables on the likelihood of subsequent acquisitions, which is their dependent variable. The study concentrates on acquisitions in the United States (US) banking industry in the years 1988 to 2001. One of their hypotheses is, just as in the article by Collins et al. (2009), that the total number of past acquisitions of a company increases the likelihood of that company making subsequent

acquisitions. Haleblian et al. (2006) also add the notion of performance, measured by the cumulative abnormal returns (CARs). Indeed, one of their hypotheses examines whether a stronger performance of past acquisitions leads to a higher likelihood of subsequent acquisitions. Their control variables also include a variable related to the firm size, as well as other variables such as the financing capability of the acquirer for example. The authors found that past acquisitions as well as the performance of past acquisitions do have a positive effect on the likelihood of subsequent acquisitions.

The third article that is of high relevance for our thesis, that we wish to introduce here, is an article that was published by Nadolska and Barkema (2007). It examines international acquisitions made by Dutch companies over thirty years. Two of the authors' hypotheses are very similar to those of Collins et al. (2009) and Haleblian et al. (2006). Indeed, Nadolska and Barkema (2007) test whether the number of international acquisitions increases with past international acquisitions and whether the number of international acquisitions increases with the number of domestic acquisitions. Also, just like Haleblian et al. (2006), Nadolska and Barkema (2007) are interested in the notion of performance. However, they chose a different approach by testing the shape of the relationship between past foreign or domestic acquisitions and the success of foreign acquisitions (measured by not divesting in the future). The last hypotheses tested by these authors examine the influence of joint ventures on the number of subsequent international acquisitions and on the success of international acquisitions. In order to test their hypotheses, they used a negative binominal regression and Cox hazard rate models and included a series of control variables. Among these control variables, we find the return on assets and the firm size that were also used in the articles presented earlier, but also other variables such as cultural differences. Just like previous authors, Nadolska and Barkema (2007) found that past international and past domestic acquisition experience have a positive relationship with the number of foreign acquisitions. Their paper showed that past joint ventures do not have a significant impact on the number of subsequent international acquisitions.

The following table (Table 1) gives a short overview of articles that have been written in the field of M&As and that serve as a background for our thesis. It presents the statistical model, the sample, the dependent, independent and control variables used as well as the main ideas of the chosen articles.

As can be seen in the overview of existing research, other articles have been written about determinants of the likelihood and performance of M&As. We chose to include in our overview other articles that do not study the effects on the performance or the likelihood of subsequent acquisitions in the same manner as we intend to do it. The reason is that we use some of the same control and independent variables as in these articles because they are related to our field.

Authors	Regression model(s) (Tool used)	Country & industry (years included)	Dependent variable(s)	Independent variables	Control variables	Main ideas / hypotheses
Barkema & Schijven (2008b)	- Ordinary least square (OLS) - Conditional fixed-effects logit models	25 large Dutch nonfinancial multinational firms listed on the Amsterdam Stock Exchange in 1993. (1966-2005)	- Firm performance (ROA) - Organizational restructuring	- Firm performance (ROA) - Organizational restructuring- Number of related acquisitions since last restructuring - Total number of related acquisitions between last two restructurings - Elapsed time since last restructuring - Acquisition experience - Restructuring experience	- Firm size - Debt-to-equity ratio - Product scope - Geographic scope - Number of divestments - Number of divisions - CEO change - Number of "greenfields" since last restructuring - Firm dummies - Year dummies	- The effect of acquisitions on the likelihood of restructuring - The effect of restructuring on performance of the firm
Barkema & Vermeulen (1998)	Binomial logit model	25 large non financial Dutch firms that were listed on the Amsterdam Stock Exchange in 1993 (1966-1994)	Fourfold dependent variable: - Wholly owned start-up - Jointly owned start-up - Jointly owned acquisition - Wholly owned acquisition	- Mode of foreign entry - Multinational diversity - Product diversity - Product relatedness.	- Ownership - Return on equity - Firm size - Cultural distance - Local experience - Gross national product (GNP) - Legal restrictions - Country risk - Time dummy variables - Firm dummy variables	Effects of multinational diversity and products diversity on the decision to set up new ventures or to acquire an existing company.

Authors	Regression model(s) (Tool used)	Country & industry (years included)	Dependent variable(s)	Independent variables	Control variables	Main ideas / hypotheses
Collins et al. (2009)	Logistic regression (Logit)	US S&P 500 firms, excluding financial and depository institutions, life insurance companies, and utilities. (2000-2003)	- International acquisitions (binary variable)	- Domestic acquisition experience - International acquisition experience - Host country acquisition experience	- Product diversification - Firm size - Level of internationalization - ROA - Shareholder return - Change in GDP - Exchange rate - Existence of skilled employees - Political uncertainty - Cultural distance	Past domestic and international acquisitions influence the likelihood of subsequent international acquisitions. International acquisitions have a stronger influence than domestic acquisitions. Host country acquisitions have the strongest influence.
Finkelstein & Haleblian (2002)	Ordinary least squares (OLS)	Acquisitions by companies in the manufacturing industry that are traded on NYSE, AMEX, Nasdaq or OTC. (1970-1990)	- Acquisition Performance (average abnormal returns)	- Acquirer to target similarity - Second acquisitions	- Relative acquisition size - Stock consideration - Acquirer slack - Attitude - Acquiring firm Performance (ROA) - Period effects	Effect of firm similarity on the performance of acquisitions. Comparison of the performance of first and second acquisition.
Haleblian & Finkelstein (1999)	Ordinary least squares (OLS)	449 large completed majority acquisitions (1980 - 1992)	- Acquisition performance (average abnormal returns)	- Acquisition experience - Target-to-target similarity	- Acquirer-to-target relatedness - Relative acquisition size - Stock consideration - Acquirer slack - Attitude - Acquiring firm performance - Period effects	Effect of past acquisition experience on the performance of subsequent acquisitions. Similarities to past acquisitions will lead to a higher performance of the acquisition.

Authors	Regression model(s) (Tool used)	Country & industry (years included)	Dependent variable(s)	Independent variables	Control variables	Main ideas / hypotheses
Haleblian et al. (2006)	Piecewise exponential model	US commercial banking industry (1988 – 2001)	- Likelihood of making a subsequent acquisition	- Acquisition experience - Focal acquisition performance	- Acquirer size - Acquirer slack resources - Acquirer firm performance - Acquirer financing capability - Relative acquisition size - Stock consideration - Lock-up agreement - Industry revenue - Industry acquisition density - Industry total acquisition value - Prior acquisition experience	Past acquisition experience and the performance of past acquisitions have an influence on the likelihood of subsequent acquisitions.
Larsson & Finkelstein (1999)	Case survey method	Cases referring to M&As in the United States and in Europe. (1959-1989)	Overall measure of synergy realization consisting of: - Realized benefits from purchasing - Production - Marketing - Market power - Administration - Vertical economies - new market access - Cross-selling - Transfer of current know-how - Creation of new know-how - Other substantial synergy sources	- Similarity of marketing operations - Similarity of production operations - Complementarity of marketing operations - Complementarity of production operations - Organizational integration - Employee resistance - Management style - Cross-border Mergers - Relative company size	- Case data collection - Case perspective - Case publication - Case calendar year - Case period length	Effects of combination potential, organizational integration and employee resistance on synergy realization.

Authors	Regression model(s) (Tool used)	Country & industry (years included)	Dependent variable(s)	Independent variables	Control variables	Main ideas / hypotheses
Nadolska & Barkema (2007)	Negative binomial regression and Cox hazard rate models	25 large non financial Dutch firms that were listed on the Amsterdam Stock Exchange (1966-1998)	- Number of international acquisitions per year - Survival of international acquisitions	- Experience with international acquisitions - Experience with domestic acquisitions - Experience with international joint ventures	- The number of foreign greenfields - ROA - Firm size - Growth of Dutch GNP - Host country GNP growth - Country risk - CEO change - Prior experience in a host country	Effect of past domestic and international acquisitions and of joint ventures on the likelihood of subsequent acquisitions and on the survival of subsequent acquisitions.
Vermeulen & Barkema (2001)	Logit models	25 large non financial Dutch firms that were listed on the Amsterdam Stock Exchange at the end of 1993 (1966-1994)	- Survival of subsequent expansion - Acquisition/ greenfield (likelihood that an affiliate was an acquisition rather than a greenfield)	- Number of preceding greenfields and acquisitions - Preceding greenfields in familiar markets/new markets - Preceding acquisitions in unrelated/related domains	- Multinational diversity - Product diversity - Firm size - Profitability - Cultural distance - Level of economic development of countries - Foreign or domestic expansion - Expansion to related or unrelated business - Subsidiary wholly or partly owned by the expanding company - Calendar time - Firm dummy variable	- Effect of greenfields on the likelihood of subsequent acquisitions. - Effect of acquisitions on the likelihood of subsequent greenfield. - Effect of previous acquisitions or previous greenfields on the survival of subsequent acquisitions and greenfields.

Table 1 Overview of relevant research

2.1.2 Critical literature review

Previous studies in the field of cross-border mergers and acquisitions have focused their research on the likelihood or on the performance of subsequent international M&As. The likelihood of subsequent international acquisitions has been used as a dependent variable by several authours such as Collins et al. (2009), Haleblian et al. (2006) and Nadolska & Barkema (2007). The performance of subsequent acquisitions has been used as a dependent variable in previous studies as well; however, the measurement used differed between the studies. Nadolska and Barkema (2007), saw the survival of international acquisitions (that is, whether the acquisition is divested later on or not) as a measure of performance. Barkema and Schijven (2008b) on the other hand, used the return on assets (ROA) as a measure for the performance. Others such as Haleblian & Finkelstein (1999) and Finkelstein & Haleblian (2002) used average abnormal returns as a measure of the performance. In our thesis, we will use both the likelihood of subsequent acquisitions and the performance of subsequent acquisitions (see 2.2) as our dependent variables. We will measure the performance using (mean) cumulative abnormal returns (CARs) such as in Haleblian et al. (2006). We will thus include both the performance and the likelihood aspects in our study which has not been the case in all of the previously presented articles that for some only include one of the two variables and hence might miss out on part of the picture.

The article that has served as a basis point for this whole thesis is the article written by Collins et al. in 2009. However, as our research advanced, we noticed some shortcomings of this paper. It focuses on the effect of the number of past domestic and international acquisitions on the likelihood of subsequent international acquisitions. To these two variables, they have added a third one related to the host country acquisition experience which gives a total of only three independent variables. These three variables provide only a few of the reasons that could drive a company to do acquisitions. Furthermore, Collins et al. (2009) have left out the performance aspect of acquisitions and thereby missed out on investigating if the same factors that drive acquisition activity also affect their performance. The major difference between our thesis and their work is thus that we added a second regression and a second dependent variable, which is the performance of subsequent acquisitions. Also, as their paper only includes three independent variables, it only has four related hypotheses. Therefore, they miss investigating the effect of variables other than past acquisition experience on the likelihood of subsequent international acquisitions. We chose to include more independent variables and hypotheses in order to broaden the field of possible reasons that could have an effect on the decision by firms to acquire other companies in the future. These variables will also be tested for effects on the performance of those acquisitions.

As regards the article written by Haleblian et al. (2006), it focuses on the likelihood of subsequent acquisitions and it examines the effect of past acquisition experience as well. However, it does also include the performance of past acquisitions, measured using cumulative abnormal returns (CARs), as an independent variable. Their article is thus more

comprehensive than the one by Collins et al. (2009) as they examine the effect of not only past acquisition experience but also of past acquisition performance. Nonetheless, they are limited to one dependent and two independent variables (acquisition experience and focal acquisition performance). Therefore, they do not provide a much wider array of possible determinants of subsequent acquisitions than Collins and his co-authors do. Moreover they focus on the banking industry in the United States which makes their results not necessarily transferable to companies and organizations in other industries.

The paper written by Nadolska and Barkema (2007) includes the number of international acquisitions and the survival of international acquisitions as independent variables. Their measure of the survival of international acquisitions could be influenced by other elements than just those included among the independent and control variables, elements that are not related to the acquisitions themselves. We thus prefer to study the performance of subsequent acquisitions rather looking at their survival. Just like Collins et al. (2009), Nadolska and Barkema (2007) are using past domestic and international acquisition experience as their independent variables. Nevertheless, their study is worth mentioning here as they also include a third independent variable, experience with international joint ventures, which brings an extra interest to their paper.

As could be seen from this literature review, the number of independent variables included in the existing studies is somewhat limited. They do provide an indication of the effect of past acquisitions on future ones; however we think that there are many more factors in companies that have an influence as well. One of the main contributions of our work will thus be to provide more independent variables that could potentially influence the likelihood and performance of subsequent acquisitions. Also, the three past studies discussed above were mainly focused on the likelihood of subsequent acquisitions. From our overview in Table 1, we can see that three papers, Finkelstein & Haleblian (2002), Haleblian & Finkelstein (1999) and Barkema & Schijven (2008b), have a measure of the performance as their dependent variable. Barkema and Schijven (2008b) measure the performance by taking the return on assets. To us, this is not a suitable measure of the performance of acquisitions as the return on assets is influenced by the regular activities of the firm as well and not just by acquisitions. Finkelstein and Haleblian use in both their studies (2002 and 1999) abnormal returns as their dependent variable, however they only use two independent variables. Even though the likelihood of subsequent acquisitions has already been studied, our thesis should bring new insights in that field as well. Haleblian et al. (2006), just study the overall likelihood of subsequent acquisitions in the banking industry, while Collins et al. (2009) make a distinction between domestic and international acquisitions. Our contribution here, apart from the extra independent and control variables, is that we have chosen to divide acquisition experience into three different geographical regions. We will study the likelihood of subsequent international acquisitions related to acquisitions in the domestic country (Sweden), in neighboring countries (Northern Europe) and in the rest of the world.

Regarding the control variables, we have chosen to use some of the same variables as those used in part of the articles presented here above. However, we have also included a new control variable as part of the previously used variables did not seem suitable for our study. For example, Collins et al. (2009) use the number of personal computers per thousand employees as a measure for the existence of skilled employees. We liked the idea to include a variable related to the skills of employees in a given country as a control variable. Nevertheless, we do not consider their measure as being suitable to measure the skills. Therefore, we chose to replace this measure by the Human Development Index (HDI), created by the United Nations as we think it provides a better indication of the level of both social and economic development of a country. More details on our control variables will be given in section 3.3.4.

The findings of the articles presented in this section will be used in order to develop our hypotheses in the next section so that we can carry out the purpose of our thesis, which is to increase the knowledge about the determinants of and the learning effects involved in the cross-border acquisitions by Swedish companies.

2.2 Theory and hypotheses development

Now that we have described articles of major interest for our work, we are going to pursue this thesis by presenting our hypotheses. Just like some of the authors presented previously, we will also study the likelihood of subsequent international acquisitions. However, in order to distinguish our work from the articles introduced earlier, we have included two different regressions in our thesis. The first one will have the likelihood of subsequent international acquisitions as its dependent variable. The second one will have the performance of subsequent international acquisitions as its dependent variable. Despite having two regressions, we will base both of them on mostly the same theories and variables. For this reason, the majority of our hypotheses will be presented in pairs. Part of the hypotheses are labeled “a” and regards the effects on the likelihood of subsequent acquisitions. The other part of the hypotheses is labeled “b” and these hypotheses are focused on the performance of subsequent acquisitions.

2.2.1 Acquisition experience

Previous studies, such as the three presented more extensively above in section 2.1.1, have pointed out that once firms have started to perform M&As, they are more likely to engage into subsequent acquisitions. Acquiring a company can be a difficult process. However, when a company buys another one, it gains experience about the acquisition procedure. While becoming more familiar with the process of acquiring another company, a firm will thus need to spend less time and resources when doing new subsequent acquisitions (Nadolska &

Barkema, 2007). This implies that a company might thus be able to do even more acquisitions thanks to the learning process. Also, it implies that subsequent acquisitions might perform better the more previous experience the acquiring firm has, because companies can learn from their acquisitions and try not to make the same mistakes again. They can further develop skills to screen for more suitable and hence more profitable targets.

Domestic acquisition experience in Sweden can create valuable knowledge on how to make acquisitions in other countries (Reuer et al., 2004). Also the M&A process including screening, selecting and integrating companies is established and can be used for more complex cross-border acquisitions where cultural differences and regulations have a very high impact on their success (Barkema & Bell, 1996).

Our sample contains Swedish firms that are listed on the Swedish stock exchange. In order to distinguish our work from that of previous authors and because it is of relevance for our sample, we decided to examine separately the effect of previous acquisitions made in three distinct geographical regions on subsequent international acquisitions. These three regions are Sweden, Northern Europe and the rest of the world. As we will see later in the discussion of the sample data (section 3.2), Northern Europe is the most frequented region for M&A activities of Swedish companies. We would like to test if regional learning occurs in Swedish firms. Acquisitions in Northern Europe could be a first step towards M&As in the rest of the world. This leads to the following three sets of hypotheses.

*Hypothesis 1a: Past M&As in Sweden positively influence the **likelihood** of subsequent international acquisitions.*

*Hypothesis 1b: Past M&As in Sweden positively influence the **performance** of subsequent international acquisitions.*

*Hypothesis 2a: Past M&As in Northern Europe positively influence the **likelihood** of subsequent international acquisitions.*

*Hypothesis 2b: Past M&As in Northern Europe positively influence the **performance** of subsequent international acquisitions.*

*Hypothesis 3a: Past M&As in the rest of the world positively influence the **likelihood** of subsequent international acquisitions.*

*Hypothesis 3b: Past M&As in the rest of the world positively influence the **performance** of subsequent international acquisitions.*

Finally the experience in a foreign country from prior acquisitions should, according to the same logic as outlined above, increase the likelihood of future acquisitions in that same country (Collins et al., 2009). This effect should be higher than the effect of past international

acquisitions experience. Following the same line of thoughts, we think that past acquisition experience in a given foreign country should lead to higher performance for subsequent acquisitions in that same country than would past international acquisition experience.

Hypothesis 4a: Past M&As in a host country positively influence the ***likelihood*** *of subsequent acquisitions in that country more than prior international acquisitions.*

Hypothesis 4b: Past M&As in a host country positively influence the ***performance*** *of subsequent acquisitions in that country more than prior international acquisitions.*

2.2.2 Industry momentum

Merger waves have been around for a long time. These waves can appear in an economy as a whole but also in specific industries (McNamara, Haleblian, & Dykes, 2008). This could pressure companies to take more part in acquisition activities than they have done before. Additionally, we argue that the learning from acquisitions is not limited to a certain company. Indeed, due to managers changing their employers, it spreads throughout an entire industry. Knowledge can also be shared between companies voluntarily or unwillingly. We could call this collective or industrial learning. Both arguments favor the idea of an industry momentum in acquisitions, which increases the likelihood but also the performance of subsequent international acquisitions. A high level of acquisition activity in the industry might affect the existing number of good potential targets (Haleblian et al., 2006), which should then have a negative impact on the likelihood of subsequent acquisitions. However we do not support this view and do therefore state the following hypotheses:

Hypothesis 5a: The higher the number of acquisitions in a certain industry in the past, the higher the ***likelihood*** *of subsequent international acquisitions by individual companies in that particular industry.*

Hypothesis 5b: The higher the number of acquisitions in a certain industry in the past, the better the ***performance*** *of subsequent international acquisitions by individual companies in that particular industry.*

2.2.3 Joint ventures

Joint ventures are new companies that are created and owned by already existing companies that decide to ally. The owners have a joint control over them. Generally, joint ventures tend to be created in order to realize a certain goal. For example, a joint venture can be a way for a company to establish itself into a new market and/or in a new country(Gaughan, 2007). There are two ways to view the use of joint venture. The first way is to look at them through an overuse perspective. A company that has started using joint ventures might continue using

joint ventures, which can be due to the existence of a status quo bias. This bias implies that when faced with a choice between the status quo and a new option, one prefers the status quo (Kahneman et al., 1991). The reason is that losses loom larger than gains (Kahneman & Tversky, 1979). In the eyes of the decision maker, there is therefore little to gain in trying the new option, in this case acquisitions and much more to lose. The existence of this asymmetry thus implies that the company would rather continue doing joint ventures that it is familiar with rather than doing an acquisition that it has no or little experience in doing. In such a case, one can say that the company overuses joint ventures. In our sample, we have two companies, NCC and Skanska, that have a high number of joint ventures, 30 and 17 respectively. However, these companies have made only four and two acquisitions respectively between 2004 and 2007. According to the overuse argument, a company would thus do more joint ventures and fewer acquisitions in the future.

Another way to look at joint ventures is to see them as a learning procedure. By doing joint ventures companies gain knowledge about foreign cultures for example, knowledge that can be useful when acquiring another company in the future. Also, according to Nadolska and Barkema (2007), as firms become more experienced with joint ventures, they find out what procedures are fit for joint ventures and what procedures can be used for acquisitions as well, which might make subsequent acquisitions more successful. An example is SAAB which had five joint ventures in 2006 and made two acquisitions in 2006 and four acquisitions in 2007. Considering that SAAB had made no acquisitions in 2004 and 2005, this might illustrate a learning behavior with the company having mainly joint ventures and then increasing its number of acquisitions. However, the short time horizon considered here prevents us from making a more confident statement. We also argue that learning through joint ventures can lay the ground work for acquisitions thereby increasing the success of M&As.

Past research by Nadolska and Barkema (2007) showed that the effect of joint ventures on the number of subsequent international acquisitions was not significant. Nevertheless, this does not discourage us from testing the effect of joint ventures anyways, especially seeing that they studied Dutch firms and that we are studying Swedish firms.

Hypothesis 6a: Learning effect: The higher the number of past joint ventures, the higher the ***likelihood*** *of a company making a subsequent international acquisition.*

Hypothesis 6b: Learning effect: The higher the number of past joint ventures, the higher the ***performance*** *of a subsequent international acquisition made by a certain company.*

Hypothesis 7a: Overuse argument: The higher the number of past joint ventures made by a company, the lower the ***likelihood*** *of subsequent international acquisitions made by that company. (The company overuses joint ventures).*

2.2.4 Performance of past acquisitions

The performance of acquisitions is not always positive for the acquirer. A meta-analysis published by Bruner in 2002, reveals inconclusive results regarding the returns to the shareholders of the acquiring firm. Indeed, part of the studies included stated that acquisitions lead to value destruction, another part to value conservation and a third part that it lead to value creation. The shareholders of the target firm were better off as they were shown to benefit from significant positive returns (Bruner, 2002). Considering the lack of encouraging evidence regarding the profitability of acquisitions for the acquiring firm, one might wonder whether this discourages firms from engaging into the M&A process. We therefore decided to examine whether the performance of past acquisitions has any influence on the likelihood and performance of subsequent acquisitions. When a firm has made a well performing acquisition in the past, common sense would suggest that this should encourage the company to employ acquisitions in the future as well. This is confirmed by Amburgey and Miner (1992) who found that the positive performance of an act augments the likelihood of that action being reiterated in the future. Haleblian et al. (2006) showed that good past performance is positively related to the likelihood of subsequent acquisitions in the US banking industry. We assume that this relationship will hold for Swedish firms as well.

As seen previously (in section 2.2.1), an enterprise learns from the process when it makes an acquisition. From this, we deduct that well performing past acquisitions should lead to well performing subsequent acquisitions thanks to the learning effects involved as the firm can try to replicate its past successful actions.

*Hypothesis 8a: The higher the performance of past acquisitions the higher the **likelihood** of subsequent international acquisitions.*

*Hypothesis 8b: The higher the performance of past acquisitions, the higher the **performance** of an international acquisition made in the observed year.*

2.2.5 Cancelled acquisitions

Not all M&As succeed, in fact, some acquisitions are announced but have to be cancelled later on. A company that tries to make an acquisition that does not succeed loses both time and money and might thus be discouraged to attempt any further acquisitions. The existence of past cancelled acquisitions should thus reduce the likelihood of that firm making subsequent acquisitions. An acquisition can fail for several reasons. It might be prevented by legal authorities applying antitrust laws. The company might not be able to buy all shares of the target due to shareholders refusing to sell or too high prices (Gaughan, 2007). Another reason could be the company simply changing its strategy. In our sample, the deals were not completed mostly due to undisclosed reasons. Also we argue that when a company has failed

to complete an acquisition in the past, it might be due to unsuitable acquisition methods, which would then imply that subsequent completed acquisitions made by such a firm should have a lower performance.

Hypothesis 9a: The higher the number of cancelled acquisitions made by a firm, the lower the ***likelihood*** *of subsequent international acquisitions made by that firm.*

Hypothesis 9b: The higher the number of cancelled acquisitions made by a firm, the lower the ***performance*** *of subsequent international acquisitions made by that firm.*

2.2.6 CEO

Acquisitions can be or not be part of a company's growth strategy. According to Aktas et al. (2009), citing previous academic research, the CEO plays a key role in the decision to acquire another company. A change of the CEO can thus lead to a change in that growth strategy.

When a company performs an acquisition, it learns. Amburgey and Miner (1992) claimed that each acquisition of the same kind increases the knowledge, which in turn increases the likelihood of subsequent same kind acquisitions. The company is not the only one that learns when acquiring another company, the CEO learns as well (Aktas et al. 2009). We therefore conclude that when a CEO has been in the same position over several years, he has increased his competences in doing acquisitions for a firm in particular. He will thus be more likely to do more acquisitions for that company in the future.

Also, the knowledge gained by CEOs when doing acquisitions leads to more accurate bids (Deighton, 2006, Aktas et al., 2009). In contrast no experience with acquisitions can lead a CEO to feel pressured to commit at any cost and therefore to buy at too high prices (King et al., 2004), thus leading to lower performance.

If managers do indeed learn from previous acquisitions, no recent change of CEO should lead to a higher performance of subsequent acquisitions, thanks to the CEO having previous experience in doing acquisitions for that particular company. This opinion is supported by Jaffe et al. (2009) whose article shows that when the CEO does not change, the performance of subsequent acquisitions is better than when the he does change. However, this idea should be nuanced by the fact that a newly elected CEO can also have previous experience as he could have done acquisitions in the past as the top manager of another firm. He could thus use his past experience to achieve well performing subsequent acquisitions in his new position. This objection can nevertheless be overcome. The experience of a CEO that has been in the company during several years should be more valuable than the experience gained by a new CEO in his previous position in another company. Indeed, the "older" CEO should know the implications of acquisitions for the company better as he might have done acquisitions while being at the head of that very company in the past. Another problem with the findings of Jaffe

et al. (2009) is that even if a CEO has been in his current position for a while, he might never have performed an acquisition before. In such a case we have to assume that he knows "his" company better than a newly elected CEO, which should allow him to reach a better performance in spite of his lack of acquisition experience.

This is why we combine CEO change with past acquisition experience in our study and make the following hypotheses:

Hypothesis 10a: No change of CEO combined with past acquisition experience increase the ***likelihood*** *of subsequent international acquisitions.*

Hypothesis 10b: No change of CEO combined with past acquisition experience increase the ***performance*** *of subsequent international acquisitions.*

2.2.7 Summary of the framework

The following figure summarizes our hypotheses about the effect of acquisition experience, industrial learning, joint venture experience, cancelled acquisitions and CEO change on the learning process in an organization. We thus hypothesize that the learning process will drive the company to undertake acquisitions more frequently due to more knowledge about the acquisition process. Furthermore we believe that a company will explore new markets in other countries and hence do more international acquisitions after gaining experience with cultural differences. Acquisition activity in known foreign markets will rise as well as a company makes use of its skills.

The experience from past acquisitions will enable the company to improve their acquisition process and consequently achieve higher performance with subsequent international acquisitions. Experience from joint ventures, industrial learning and no change in CEO combined with past acquisition experience are further factors which should have a positive impact, whereas the cancellation of transactions have a negative influence on the performance of subsequent acquisitions. We hypothesize that higher performance encourages the organization to undertake even more acquisitions in the future and to do this more successfully.

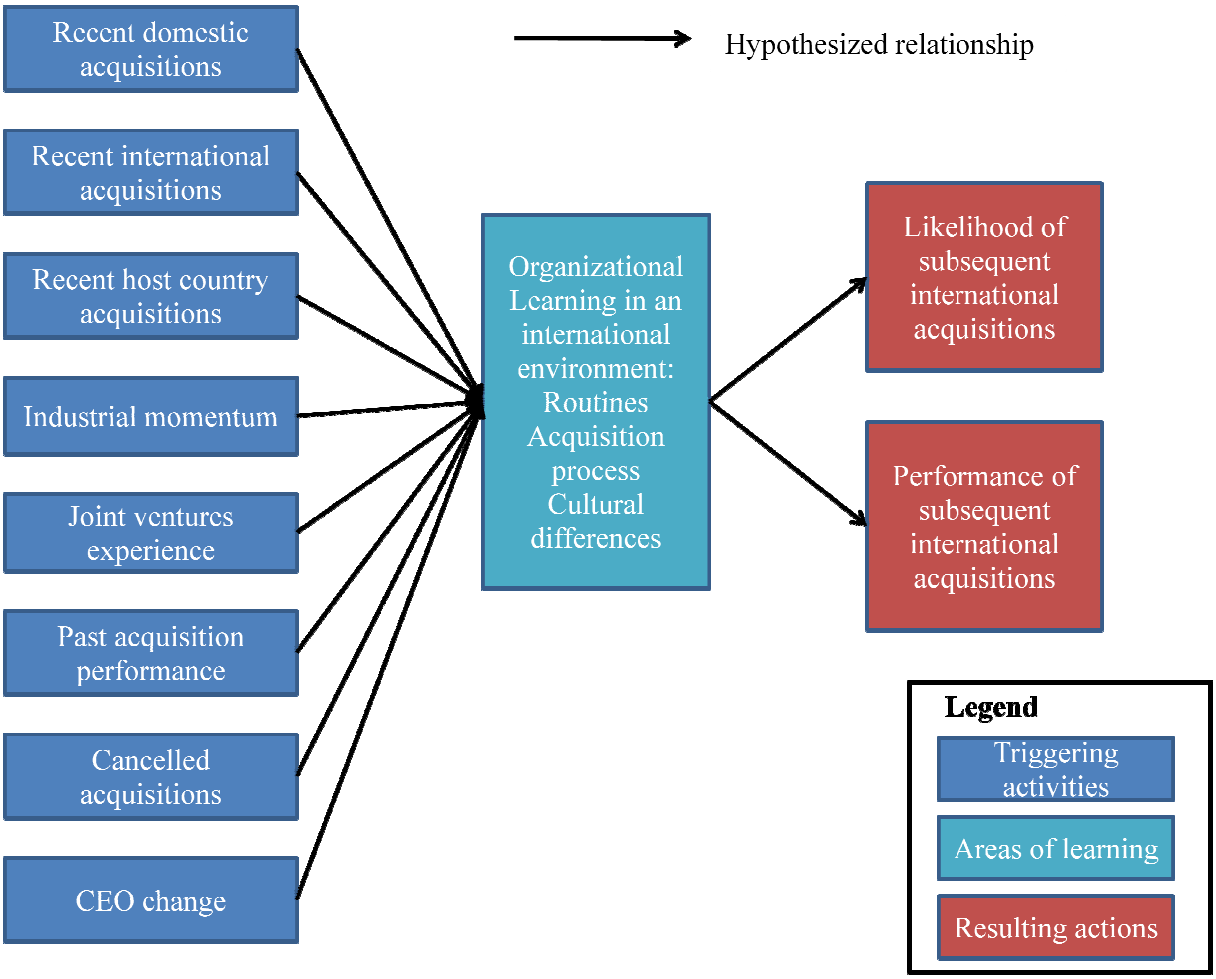


Figure 1 Links between triggering activities, areas of learning and the likelihood and performance of subsequent international acquisitions.

3 Methodology

This part describes the sample selection and the sample data. The definitions of the individual dependent, independent and control variables will be given. The two regression models, logit regression and ordinary least square regression, which are going to be applied, will also be shortly explained. The section will then end with a discussion of the reliability and validity of our variables and methods.

3.1 Sample selection

We decided to focus this study on Swedish firms listed on the Swedish OMX Stockholm Stock Exchange. Previous studies about learning in regards to acquisitions on the other hand have investigated American companies (Collins et al., 2009, Haleblian et al., 2006) and companies in other European countries such as the Netherlands (Vermeulen & Barkema, 2001, Nadolska & Barkema, 2007). All of these studies focus on the biggest companies in the respective countries or a certain industry. We on the other hand include almost[2] all listed Swedish companies to be able to draw conclusions for all listed companies and not only the blue chips.

Our focus on companies listed on the stock exchange is due to practical reasons. Given that non-listed companies do not have to publish annual reports, most of the information needed for our study would not have been available to us for such companies.

We chose not to study only one industry in particular (such as Haleblian et al., 2006, who focused on the banking industry) because of the small number of companies in each industry in Sweden. We are rather interested to come to conclusions that are valid for all listed Swedish companies. Furthermore, the data did not always allow us to determine the industry of the target. Therefore we did not include a variable of industry-relatedness of the acquisition.

Some of the previous studies done in the field of M&As, such as Vermeulen & Barkema (2001) have included up to 30 years of data regarding past acquisitions. Our study focuses on the years 2004 to 2007, with 2004 to 2006 being the years used for the independent (lagged) variables and 2007 the year used for the dependent variable. This is in line with Collins et al. (2009)'s approach as they use the years 2000 to 2002 for the lagged variables and 2003 for the dependent variable. The reason for our choice to use 2007 for our dependent variables is that it was the year with most M&A activities by Swedish listed companies as seen from Diagram 1 (p. 27). Also, there would have been little interest in including the last 30 years given the low availability of data (barely any Swedish M&A data is available before 2000 from the used database, Reuters 3000 Xtra).

[2] Eleven companies had to be excluded due to missing data.

3.2 Sample data

In order to test our hypotheses, we use a sample of firm-country pairs. Included in this sample, are Swedish companies that have been listed in Sweden at least since the beginning of 2004 (247 companies). Data for the whole sample from 2004 to 2007 was mainly collected from Reuters 3000 Xtra's "M&A search" for information on acquisitions and Thomson Datastream for accounting data. We further investigated the annual reports of the companies for information on joint ventures, CEO changes and name changes to match M&A information to the correct companies. Country data was taken from various sources described later in section 3.3.4.2.

After having to exclude eleven companies due to missing data for our firm level control variables (see 3.3.4.1), our final sample consists of 236 companies. The selected country sample is restricted by the data for cultural distance to 62 countries excluding Sweden (see Table 23 in the Appendix). The final sample of firm-country pairs has therefore 14,632 combinations.[3] This enables us to test the effect of company related factors on the acquisition behavior in a specific country while controlling for country-related circumstances. This 14,632 item sample is the one that will be used to test our hypotheses related to the likelihood of subsequent acquisitions.

The companies in our sample have on average 5,064 employees and a book value of total assets of 44.7 million SEK. The main industries are electronic equipment (18 companies), computer services (14) and industrial machinery (13). The number of acquisitions per year by these 236 companies from our sample has risen steadily from 50 in 2004 to 294 in 2007. On average 0.75 acquisitions per company and year happened in that period. The most active acquirers of targets outside Sweden were Trelleborg AB (20 acquisitions), B&B Tools AB (20), Hexagon AB (18) and Securitas AB (14). The most common target countries were Norway (49 acquisitions), Denmark (42), United States (37), Finland (32) and UK (24). The neighboring countries (Denmark, Finland and Norway) are combined in Diagram 1 as "Northern Europe" to underline their importance as the primary target countries for acquisitions by Swedish firms.

[3] 236 firms × 62 countries = 14,632 firm-country pairs.

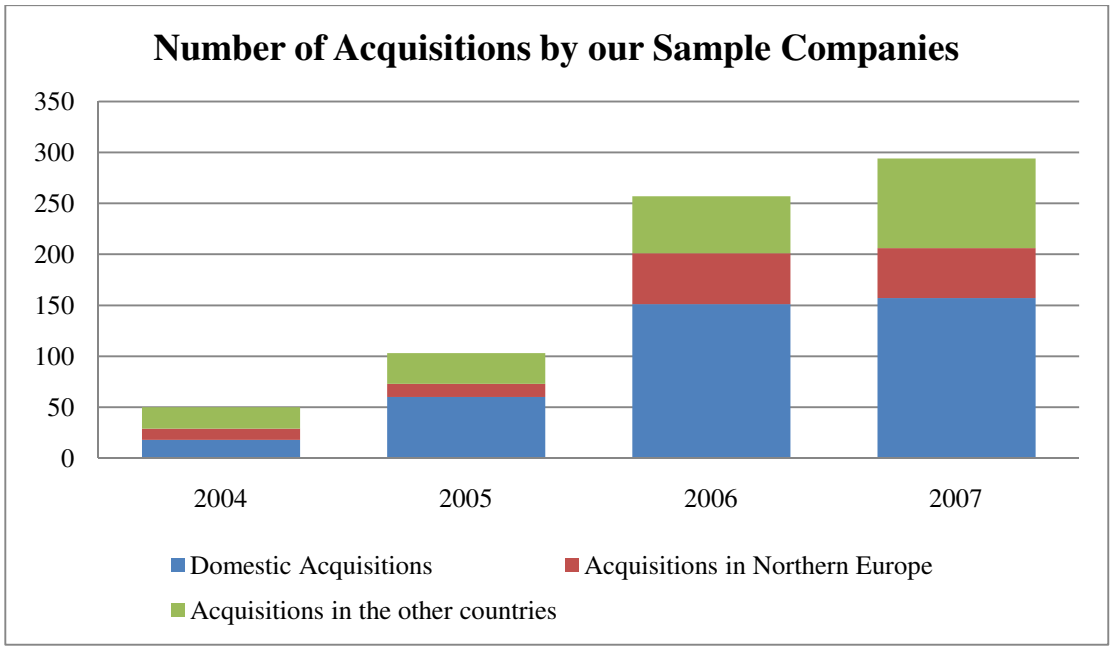


Diagram 1 Number of acquisitions by sample companies

For testing our hypotheses concerning the performance of cross-border acquisitions, we use 130 of the 137 international acquisitions undertaken in 2007 by a total of 59 different companies.[4] Overall, the distribution of companies and countries for the performance sample in 2007 is similar to the whole sample for 2004 to 2006 with Hexagon AB accounting for most acquisitions and a strong overall tendency of Swedish firms to buy companies in Northern Europe. The most active sectors were industry machinery, electronic equipment and business support services with a total of 77 completed international transactions in 2007.

3.3 Variables

3.3.1 Dependent variables

As this thesis contains two different regressions, it also contains two different dependent variables. The first one, ***International Acquisition***$_{2007}$, is a binary variable that is coded one if a certain company does an acquisition in a given country in 2007 and zero otherwise. An acquisition is defined as taking complete control of a company or any of its subsidiaries. We do not count pure investments as acquisitions.

In the other set of regressions, the dependent variable is ***Acquisition Performance***$_{2007}$, which is the performance effect of an acquisition made in 2007 on the acquirer's stock price. The variable is measured in an event study approach (Brown & Warner, 1985): Under the assumption of market efficiency, an unexpected event such as an acquisition will result in abnormal price changes of the acquirer's stock price. This abnormal return can be calculated

[4] Seven acquisitions had to be omitted due to missing data for the control variables.

as the difference between expected and actual performance of the stock price. For the expected performance (or "normal" returns that is supposing there is no acquisition), we use a standard Capital Asset Pricing Model (CAPM) approach with a market index represented by the OMX Stockholm All Share Index which includes all Stocks traded on the Stockholm Stock Exchange. For the risk free rate we use the interest rates of German federal bonds with one year to maturity:

$$\varepsilon = R_{it} - \beta_i R_{mt}$$

where R_{it} is the stock return less the risk free rate for the ith company for day t, R_{mt} is the market return less the risk free rate (=market premium) for day t, and β_i is the beta of ith company's stock price. We decided to use a time window for the beta calculation which is 300 days to 61 days before the announcement date that is common to a number of studies in the field (Larsson & Finkelstein, 1999, Haleblian & Finkelstein, 1999, Finkelstein & Haleblian, 2002). For the abnormal returns the window is symmetric with 5 days before and after the announcement date. As other authors (e.g. Haleblian & Finkelstein, 1999, Finkelstein & Haleblian, 2002) have done, we check our results with different definitions of shorter time windows as well (one, two, three and four days before and after the announcement date) Moreover, we also test two non symmetric windows (-5 days to +15 days and 0 to +2 days) used by Haleblian et al. (2006) as well as two windows used by Schoenberg (2006) (-10 to +10 days and -1 to 0 days).

We are aware that a few days might not be enough to account for the full performance of the deal as all the effects of the acquisition are perhaps not yet visible and are therefore not priced into the acquirer's stock. Nevertheless, we did not want to study the performance of the company over a more extensive time period as the share price of the firm's stock could then reflect other elements not related to the performance of the acquisition itself. Moreover, should a company do more than one acquisition in one year, the performance effects could overlap when using a longer time horizon, while this risk is limited in our shorter time horizon.

3.3.2 Independent variables

3.3.2.1 Acquisition experience

Collins et al. (2009) used the number of past acquisitions in the United States and in the rest of the world as an independent variable to see whether past acquisitions influence the likelihood of subsequent acquisitions. We also follow this concept and create two variables for the total number of domestic (Sweden) and international acquisitions respectively, between 2004 and 2006. In a second step, we further extend their concept by using three geographical zones: Sweden, Northern Europe and the rest of the world. This distinction is

made in order to reflect the fact that Swedish companies by numbers tend to acquire mostly other Swedish companies, then companies in Northern Europe and finally in the rest of the world.

This variable ***Sweden*** measures the total number of acquisitions made by a company in Sweden in 2004 to 2006. ***Northern Europe*** corresponds to the total number of acquisitions made by a company in Northern Europe in 2004 to 2006. In this study, Northern Europe includes Denmark, Finland and Norway. The variable for the ***rest of the world*** is the number of acquisitions made by a company in the rest of the world (excluding Sweden and Northern Europe) in 2004 to 2006.

These three variables will show whether past acquisitions in a given country or group of countries can influence the number of international acquisitions in 2007. We also created a variable for the number of acquisitions in the ***host country*** to test if host country experience relates to acquisition strategy.

3.3.2.2 Industry momentum

There are two measures of industry momentum that come to mind. In line with the above defined acquisition experience, one can employ the ***total number of acquisitions*** undertaken by companies in an individual industry between 2004 and 2006 as a measure. Since the higher the number of companies in an industry, the higher the number of acquisitions could be, we also employ the ***average number of acquisitions per company*** in an industry as an alternative measure of industry momentum.

As pointed out in section 3.2, some companies make a lot of acquisitions thereby affecting the above defined measures for industry momentum disproportionately. We therefore created a second set where the total number of acquisitions of the peers in the industry (total number of acquisitions minus the company's acquisition) is used, thus excluding the past acquisition experience of the company in focus from the industry variable. A similar measure has been used by Amburgey and Miner (1992) as an indicator of the broad economic trend. The average number of acquisitions per company in an industry is calculated accordingly by excluding the past acquisition experience of the focal company. A total set of four independent variables (***total number of acquisitions, average number of acquisitions per company, total number of acquisitions excluding own, average number of acquisitions per company excluding own***) will consequently be used to explain industry momentum.

The classification of industries was taken from the Thomson Reuters Datastream database. We used the "ICB Sector"[5] variable which has 39 different categories of which 34 industries match with the industries of companies in our sample (for a full list of the elements see Table

[5] The Industry Classification Benchmark (ICB) used by Datastream is a hierarchy developed by FTSE and Dow Jones for investment managers to classify equity.

24 in the Appendix). The two other industry classification options available in Datastream ("ICB Supersector" and "ICB Subsector") had either too few or too many categories (18 and 104 respectively) to expect meaningful results. There are between one and 34 companies in each industry sector (ICB Sector) in our sample. Analyzing the number of companies and acquisitions in a sector, we find a high correlation of 0.64 between the two variables, which supports our idea of using average number of acquisitions per company to account for industry momentum. Otherwise industry momentum could capture if a company is in an industry with many peers. The results would then not be reliably interpretable towards our idea of collective learning but would be connected to the size of the respective industry. This could also be an interesting area to study but will not be part of this thesis since we want to focus on learning and not on size.

3.3.2.3 Joint ventures

This variable measures the ***number of joint ventures*** that a firm had in 2006. The information is taken from the annual reports of the companies in our sample. The variable is highly dispersed as can be seen from Diagram 2 in the Appendix. We would have liked to do a log transformation to reduce this dispersion in the variable but since a lot of companies do not have joint ventures this was not possible (the log of zero is not defined). We also use a dummy variable, ***existence of joint ventures***, which is one if the company has one or more joint ventures and zero otherwise. This could improve the reliability of our regression results.

3.3.2.4 Performance of past acquisitions

The variable, ***cumulative abnormal returns*** (CARs), assesses the performance of past acquisitions that were made by a firm over the year 2006. The same event study approach as outlined in section 3.3.1 is used.

3.3.2.5 Cancelled acquisitions

The variable ***cancelled acquisitions*** corresponds to the number of acquisitions that were announced but that were not completed (cancelled) as reported by Reuters 3000 Xtra, the database we used for M&A data.

3.3.2.6 CEO Change

Since we want to test whether no change in CEO combined with past acquisition experience is positively related to the likelihood of subsequent acquisitions as well as their performance, we use a dummy variable for our regressions. The variable was constructed by using two binary variables. One dummy is related to CEO change, which is one in case of no CEO change between 2004 and 2006 and zero otherwise. The other dummy variable is one if the company has made an acquisition between 2004 and 2006 and 0 otherwise. These two variables were then multiplied in order to obtain the CEO change dummy variable. This

variable is coded one if the company has not changed CEO and has past acquisition experience between 2004 and 2006 because that is our null hypothesis for both regressions (see hypotheses 10a and 10b in section 2.2.6). In all other cases the variable is coded zero as can be seen from Table 2. Past acquisition experience refers to all M&A experience, domestic and abroad (we do not make a geographic distinction as we are interested in whether the CEO has gained knowledge through past M&A experience about the acquisition process itself).

		Change in CEO between 2004 and 2006	
		No	Yes
Past acquisition experience between 2004 and 2006	Yes	1	0
	No	0	0

Table 2 CEO Change and past acquisition experience

3.3.3 Summary of independent variables

The following Table 3 summarizes our independent variables with their expected signs for the likelihood and the performance of acquisitions.

Independent Variable	**Expected sign for likelihood of acquisitions**	**Expected sign for performance of acquisitions**
Acquisition experience in		
Sweden (home country)	+	+
Northern Europe	+	+
Rest of the world	+	+
International	+	+
Host country	+	+
Industry momentum	+	+
Number of joint ventures/existence of joint ventures	+/–	+
Cumulative abnormal returns	+	+
Cancelled acquisitions	–	–
CEO change AND past acquisition experience	+	+

Table 3 Expected signs of our independent variables

3.3.4 Control variables

As can be seen from Table 1 (p. 14), authors use some common variables to control for influences on firm and country level. We combine the control variables used in different articles to have a more comprehensive set. Due to poor data availability, variables such as product diversification and level of internationalization could not be included. Similar to our

independent variables, the control variables are lagged, in this case, by one year and refer to 2006, which is the recent past for the acquisitions made in 2007.

3.3.4.1 Firm level

The acquirer's likelihood to engage in acquisitions and the performance of those acquisitions might be influenced by firm characteristics which consequently have to be controlled for in order to test our hypotheses. Since we are interested in the impact of learning in an organization on the acquisition behavior, we would like to exclude especially the consequences of financial characteristics (return on assets, shareholder return and acquirer slack resources) of a firm. We do not control however for industry effects since this is one of our hypotheses (see hypotheses 5). In the following passage, we will explain the variables in more detail and give indications on their expected signs.

Larger firms have more resources for expansive strategies (Nadolska & Barkema, 2007) and stronger inertial forces which favor repetitive actions (Hannan & Freeman, 1989). ***Firm size*** is usually measured (in the studies included in our overview in section 2.1.1) as the natural logarithm of size figures such as sales, total assets or employees. In our opinion, the number of employees in a company is the best proxy for the level of human resources available to management. The higher the number of total employees, the higher the number of people which could be involved in M&A activity and processes in a company. More employees hence increase the likelihood of acquisitions. We use the natural logarithm of employees as our size measure and expect it to be positively associated with the likelihood of cross-border acquisitions. A few of the performance articles use firm size in this manner as a control variable. However, we follow Barkema & Schijven (2008b) and include the firm size measure in the performance regressions to account for any interfering effects. Their regression results showed a significant negative effect (Barkema & Schijven, 2008b) on performance, which we will expect as well.

Another reason for the pursuit of aggressive growth strategies by the means of acquisitions could have its origin in a strong financial performance of the company. Managers might, in such a case, have more freedom to employ a M&A strategy. Therefore a number of studies apply ***return on assets (ROA)*** to control for this effect (Collins et al., 2009, Haleblian et al., 2006, Nadolska & Barkema, 2007). We define ROA as net income divided by total assets in 2006. The same effect on strategy could originate from good performance on the stock markets. Therefore ***shareholder return,*** measured as the company's total return (dividends and share price gains) to shareholders in the year 2006, is used as well. Both measures are anticipated to be positively related to the probability of cross-border acquisitions. Acquisitions of successful companies tend to be valued higher (Morck et al., 1990). Therefore we expect the profitability variables to be positively associated with acquisition performance.

When a company has slack resources but few investment opportunities, an acquisition can be a strategy employed by management in order to avoid being taken over by another firm that would use the slack resources to finance the deal (Brealey, Myers, & Allen, 2006). The existence of slack resources in a firm could further encourage managers to follow risky strategies such as acquisitions (Lang, Stulz, & Walkling, 1991). On the other hand, a company could get more creative the fewer (cash) resources it has, which could push the company to explore other options such as M&As. Nevertheless, we argue that the existence of ***acquirer slack resources*** should encourage subsequent acquisitions because managers will tend to spend the free cash. We do therefore expect a positive sign for the coefficient in the likelihood regressions. Regarding the association to the performance of acquisitions, slack resources could have a negative influence since the existence of cash resources drives a company to overinvest and select investments with negative present value (Jensen, 1986). However, Hitt et al. (2001) showed that available cash is positively associated with successful acquisitions. We consequently include the control variable but cannot predict its sign for the performance of acquisitions. ***Acquirer slack resources*** are defined as non-operating cash over total assets in 2006. Non-operating cash is in turn defined as cash available minus two percent of sales (Koller, Goedhart, & Wessels, 2005). If the cash balance is less than two percent of sales the slack is determined to be zero.

3.3.4.2 Country level

A firm may choose to buy or not to buy companies for other reasons than firm specific criteria. A country's cultural and political environment as well as its growth prospects can be very strong drivers too. All together, these variables determine the riskiness of the venture and its possibility of success since we expect managers as well as the financial markets to be risk averse. Following Collins et al. (2009) and Nadolska & Barkema (2007), we therefore use ***cultural distance***, ***political uncertainty***, ***exchange rate***, and ***GDP change*** as country level control variables. We added a ***country's development*** as a further variable to control for development differences between countries. These factors can also express the riskiness of a venture and prevent companies from entering in M&A activities in some countries.

Cultural differences could influence acquisition activity of companies in new markets (Kogut & Singh, 1988, Barkema & Vermeulen, 1998). In order to have an operational numeric measure, Kogut & Singh's (1988) developed a composite index of ***cultural distance***. The index is based on the four dimensions of culture found in Hofstede's study[6]: power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance. To measure the cultural distance (CD) between the host country and Sweden (the home country), the difference between the country-pairs for each dimension is used in an algebraic formulation as follows:

[6] We use the data from the latest study, Hofstede (2001).

$$CD_j = \sum_{i=1}^{4} \left\{ \left(I_{ij} - I_{is} \right)^2 / V_i \right\} / 4$$

Where CD_j is the cultural distance of the jth country from Sweden, I_{ij} represents the index for the ith cultural dimension and j^{th} country, V_i is the variance of the index of the ith dimension, and s indicates Sweden (Kogut & Singh, 1988). The data for the countries was available on Hofstede's website[7].

Political uncertainty in a country can prevent companies from investing although growth prospects might be high. The Political Constraint Index (POLCON) developed by Henisz (2002) measures this uncertainty or more precisely the feasibility of change in a country. The data is provided by the author for almost all countries. Cultural and political dimensions may not capture the actual development in a country which also has to be taken into account when thinking about acquisitions. We therefore measure a ***country's development*** by the Human Development Index (HDI) from the United Nations Development Programme[8]. It is a composite index that combines measures of life expectancy, GDP[9], adult literacy rate and gross ratios for primary, secondary and tertiary school enrollment, in order to give an indication of the level of social and economical development of a country (United Nations Development Programme (UNDP), 2009). We expect that the higher the cultural distance and the higher the political uncertainty, the lower the likelihood of acquisitions and the lower their performance due to the higher riskiness. On the other hand, we expect that firms will be more likely to acquire in higher developed countries as a higher level of development could imply the existence of more potential targets (Collins et al., 2009). As regards the performance, we expect that the higher the country's development, the higher the performance of acquisitions made in that country.

Recent growth and favorable exchange rates can influence the decision to invest or acquire (Nadolska & Barkema, 2007). Consequently, we use the percentage ***change in GDP*** in 2006 in a host country in order to control for the market potential and growth rate. The public available World Bank's World Development Indicators database[10] provides this data for all countries. Furthermore, depreciation in a country's currency versus the home country's currency (Swedish Kronor) could encourage acquisitions since they become comparatively cheaper. The ***exchange rate*** change between Sweden and a host country over 2006 is used to neutralize the effects of appreciation and depreciation of currencies. It is defined as the percentage change from the quotation between the beginning (January 1st) and the end (December 31st) of the year. The data has been taken from the Currency Converter of

[7] http://www.geert-hofstede.com/hofstede_dimensions.php.
[8] http://hdr.undp.org/en/statistics/data/
[9] We included change in GDP as a separate variable as well since it is an important control variable but only a small part of the composite index of Human Development.
[10] http://go.worldbank.org/1SF48T40L0

OANDA[11]. Both, high growth opportunities measured by the change in GDP and depreciation of the host country's currency are encouraging for acquisitions and are therefore anticipated to be positively associated with their likelihood as well as with their performance.

3.3.4.3 Overview of the expected signs of our control variables

We have a total of nine control variables for both regressions (the likelihood of acquisitions and the performance of acquisitions). The above discussion on the expected signs of the control variables is summarized in Table 4. Although we consider the effect of control variables on the two dependent variables, we do not intend to add any further hypotheses by including this table. Our intention with the regressions is to explore the effect of learning on the likelihood and performance of acquisitions. The other variables (the control variables) are therefore only included to filter any further influences. The predicted effect is taken from past studies on similar subjects that can be found in Table 5 (p. 38).

Level	Control Variable	Expected sign for likelihood of acquisitions	Expected sign for performance of acquisitions
Firm level	Firm size	+	–
	Return on assets	+	+
	Shareholder return	+	+
	Acquirer slack resources	+	–/+
Country level	Cultural distance	–	–
	Political uncertainty	–	–
	Country's development	+	+
	Change in GDP	+	+
	Exchange rate	+	+

Table 4 Expected signs of our control variables

3.3.5 Overview of variables

A summary of all our dependent, independent and control variables can be found in Table 5. It includes the measurement of these variables, our data sources and the articles in which they have been used previously.

[11] http://www.oanda.com/lang/en/currency/converter/

Dependent Variable	Measurement	Used by	Data Source
International acquisition$_{2007}$	Dichotomous variable that equals one if the firm acquired a target company in the host country in 2007 and zero otherwise	Collins et al. (2009), Haleblian et al. (2006), Nadolska & Barkema (2007)	Reuters 3000 Xtra
Acquisition performance$_{2007}$	Cumulative Abnormal Returns (CARs) around a company's acquisition in 2007	Finkelstein & Haleblian (2002)	Thomson Reuters Datastream
Independent Variables	**Measurement(s)**	**Used by / Theory**	**Data Source**
Acquisition experience	Number of acquisitions made by a company between 2004 and 2006 in: - Sweden (home country) - Northern Europe - World - Host country	Barkema & Schijven (2008b), Collins et al. (2009), Haleblian et al. (2006), Nadolska & Barkema (2007)	Reuters 3000 Xtra
Industry momentum	- Total number of acquisitions undertaken by all companies in an individual industry - Average number of acquisitions per company in an industry - Total number of acquisitions of the peers in the industry (excluding the company in focus) - Average number of acquisitions per company of the peers in an industry (excluding the past acquisition experience of the focal company) (All variables consider the years 2004 to 2006)	Inspired by "industry acquisition density" as control variable in Haleblian et al. (2006)	Reuters 3000 Xtra
Joint ventures	Number of current joint ventures in 2006	Inspired by Nadolska & Barkema (2007)	Annual reports, primary data generation
Performance of past acquisitions	Cumulative abnormal returns (CARs) around a company's acquisition in 2006	Haleblian et al. (2006)	Thomson Reuters Datastream
Cancelled acquisitions	Number of announced but cancelled acquisitions between 2004 and 2006	Discouragement for future acquisitions	Reuters 3000 Xtra

CEO change	Dichotomous variable that equals one if the CEO has not been changed AND if the company made acquisitions between 2004 and 2006	Inspired by Jaffe et al. (2009)	Annual reports, primary data generation
Control Variables (Firm Level)	**Measurement(s)**	**Used by**	**Data Source**
Firm size	Natural logarithm of the number of employees in 2006	Nadolska & Barkema (2007), Barkema & Schijven (2008b)	Thomson Reuters Datastream
Return on assets (ROA)	Net income divided by total assets in 2006	Collins et al. (2009), Finkelstein & Haleblian (2002), Haleblian et al. (2006), Nadolska & Barkema (2007)	Thomson Reuters Datastream
Shareholder return	Total return (dividends and share price gains) to shareholders in the year 2006	Collins et al. (2009)	Thomson Reuters Datastream
Acquirer slack resources	Non-operating cash divided by total assets (Non-operating cash is equal to cash minus two percent of sales)	Finkelstein & Haleblian (2002), Haleblian et al. (2006)	Thomson Reuters Datastream
Control Variables (Country Level)	**Measurement(s)**	**Used by / Theory**	**Data Source**
Cultural distance	Kogut and Singh (1988)'s composite index of cultural distance based on Hofstede's index	Barkema & Vermeulen (1998), Collins et al. (2009), Nadolska & Barkema (2007), Vermeulen & Barkema (2001)	Hofstede's website
Political uncertainty	Political Constraint Index (POLCON)	Collins et al. (2009)	Henisz (2002)
Country's development	Human Development Index (HDI)	Higher development leads to more potential targets	United Nations Development Programme

Change in GDP	Percentage change in GDP in 2006	Barkema & Vermeulen (1998), Collins et al. (2009), Nadolska & Barkema (2007)	World Bank's World Development Indicators database
Exchange rate	Exchange rate change between Sweden and a host country between January 1st 2006 and December 31st 2006	Collins et al. (2009)	Currency Converter of OANDA.com

Table 5 Summary of all our variables

3.4 Regression models

We run our regressions using the statistical program R, an open-source statistics software provided by The R Foundation for Statistical Computing.[12]

3.4.1 Logit regression model for the likelihood of acquisitions

Other studies in the field (likelihood of acquisitions) with longitudinal data over many years use a Cox hazard rate model (Nadolska & Barkema, 2007) or a piecewise exponential model (Haleblian et al., 2006) as pointed out in Table 1 (p. 14). Those models also take the time between acquisitions into account since the authors are more interested in the long term effects. Our model on the other hand is restricted to observations of only one year for the dependent variable. We can therefore apply a logistic regression model since the dependent variable, ***International Acquisitions***$_{2007}$, is a binary variable. To be more specific, we use a logit model. In contrast to an ordinary least square (OLS) regression model, one needs to use maximum likelihood estimation (MLE) to receive estimators for the regression coefficients. The normality of the residuals and homogeneity of the variance are not given, which makes the classic inference statistics (t-tests, F-test) obsolete. Alternatively, Wald-tests for the significance of individual coefficients are applied. In order to test the full model we use a likelihood-ratio test as well as McFadden's pseudo-R^2. Pseudo-R^2 is a measure which is comparable to the R^2 from an OLS regression. The higher the (pseudo-)R^2, the better is the specification of the regression model. McFadden (1973) defines the pseudo-R^2 as

$$R^2 = 1 - \frac{L(\hat{\theta})}{L(\hat{\theta}_H)}$$

where $L(\hat{\theta})$ is the log likelihood of the model with all regressors and $L(\hat{\theta}_H)$ is the log likelihood without regressors. This is comparable to the R^2 of an OLS regression, where one minus the ratio of the sum of squared residuals and the total sum of squares is used instead. Since larger values of pseudo-R^2 are preferred, one can rank different models by their pseudo-R^2. No satisfactory explanation for the interpretation of the pseudo-R^2 exists except for the values zero and one. Furthermore, a standard for when the measure is big enough is missing (Long, 1997). This makes interpreting the regression results and the fit of the model difficult.

3.4.2 OLS regression model for the performance of acquisitions

For the performance of acquisitions, we rely on an OLS regression model as used in similar studies (Barkema & Schijven, 2008b, Finkelstein & Haleblian, 2002). In contrast to the logit

[12] www.r-project.org

regression, we can use the regular R^2 and F-statistic to evaluate the model specifications. We are also able to employ t-statistics to check for the significance of the coefficients.

3.5 Methodological issues

3.5.1 Reliability

For our results to be a reliable source of knowledge, the measurements have to be consistent. Most important is the stability of a measure over the measurement period. The scale must be consistent over time (internal reliability) and all measurements have to be made with the least subjective judgment possible (Bryman & Bell, 2007).

Most of the data used for our variables, such as the dependent variables, likelihood and performance of subsequent international acquisitions, comes from Reuters 3000 Xtra Database and Thomson Reuters Datastream. These are two well-known databases that should provide reliable data as their measurement of accounting data and stock prices is consistent over time. The M&A data could be less consistent as it is based on news feeds, which might not report all acquisitions of companies. Also, the acquisitions might sometimes not be reported with the correct announcement date.[13] We cross-checked some extreme values in the accounting data from Datastream with annual reports and found the data always to be correct.

One might question the reliability of the variable cancelled transactions as it only reflects 6 failed acquisitions overall. The issue with this variable is that it might only account for acquisitions that were cancelled in an advanced stage of negotiations. However, considering that the data on acquisitions that were cancelled at an early stage in the negotiations is not publicly available, the variable can be seen as a reliable indication for the acquisitions that were cancelled shortly before the completion of the deal.

In addition, we collected the data for the CEO change and for the number of joint ventures ourselves by going through the annual reports of all the 236 companies in our sample. Since we used consistent definitions and discussed close calls together in order to achieve the highest reliability for these measures, we minimized the problems related to inter-observer consistency (Bryman & Bell, 2007).

In order to measure the cultural distance, we used a measurement provided on Hofstede's website. For the measure of the political uncertainty, we found the data in Henisz (2002). Considering that these two variables have been used by researchers in other studies as well (see Barkema & Vermeulen, 1998, Collins et al., 2009, Nadolska & Barkema, 2007, Vermeulen & Barkema, 2001), we do consider them as being reliable measures. Furthermore, we found the data for the human development index in the United Nations' Human

[13] We found data for a few acquisitions that reported the completion date before the announcement date with a difference of up to one year.

Development Report. Seeing that the United Nations is a well recognized institution, we deem the data it provides as being reliable as well. These three measures are taken for the year 2006 only so there is no problem with stability of the method of measurement over time.

As regards our regressions, we use logit regressions and OLS regressions just as other researchers have done for similar studies (see Collins et al., 2009, Finkelstein & Haleblian, 1999, Haleblian & Finkelstein, 2002, Vermeulen & Barkema, 2001). Considering that these are two well-recognized statistical models, they should provide reliable results for our variables.

The statistical program employed for our regressions is R, which is a reliable tool widely by practitioners and researchers (Vance, 2009).

3.5.2 Validity

In order to draw valid conclusions from our results, we have to make sure that our measures are designed so that they actually gauge what they are supposed to measure (Bryman & Bell, 2007).

So as to test which variables have an influence on the likelihood of subsequent acquisitions, we use a dummy as our dependent variable and then run a set of regressions. This is a method that has been used in several previous studies (such as Collins et al., 2009, and Haleblian et al., 2006). We do therefore see it as a valid way to test the relationship of variables with the likelihood of subsequent international acquisitions.

Regarding the performance regression, we used cumulative abnormal returns as the dependent variable. Some studies have used the same measure whereas other studies have used different measures. However, the difference in the measures is due to the authors wanting to study different aspects of the performance. The cumulative abnormal returns are measured as the difference between the expected and the actual returns of a company's stock around the announcement date of the acquisition. This measure might be seen as questionable as the movements in the stock prices can incorporate other expectations of the market participants unrelated to the announced acquisition as well. Nonetheless, considering that most of the studies in the field of M&As used abnormal returns in the past (see Table 1 in King et al., 2004), we chose to see cumulative abnormal returns as a valid measure of the performance of acquisitions. Also, one might question whether cumulative abnormal returns are a suitable measure of the performance. Assuming that the markets are efficient, CARs are a valid measure as they incorporate the stock markets' expectations for the future performance of the acquisition (Brealey, Myers, & Allen, 2006).

The sample considered in our thesis includes all Swedish firms listed on the Swedish stock exchange since at least 2004. Only eleven companies had to be excluded due to missing data.

Our sample should therefore be representative of Swedish companies and should thus allow us to draw valid conclusions about the behavior of Swedish companies overall.

The list of countries included in our study had to be restricted to 62 due to the availability of data on cultural distance for example. However, this should not hamper the validity of our firm-country sample as the countries excluded were not countries in which targets were actively acquired.

Concerning our control variables, most of them, such as ***return on assets*** or ***shareholder returns***, are simply basic measures. Others such as ***country's development*** and cultural distance are less straightforward. As seen previously a ***country's development*** is measured by the HDI which is a combination of different development indicators. These include variables such adult literacy rate and gross ratios for school enrolment that seem suitable to evaluate the level of development of a country. One might also question if the cultural distance index developed by Kogut & Singh (1988) based on Hofstede's four dimensions of culture is an appropriate and valid method to test for difference in cultures between two countries. We see that the index has been applied in multiple studies (Barkema & Vermeulen, 1998, Collins et al., 2009, Nadolska & Barkema, 2007, Vermeulen & Barkema, 2001) and deem it therefore to be a valid measure.

4 Empirical results and analysis

In this section, descriptive statistics including the correlations of the variables are presented. The regression results of the individual testing of the hypotheses are reported and analyzed. A discussion of the control variable follows. Thereafter a robustness check of the results through the joint testing of some variables will be conducted. It will be accompanied by a second robustness check that excludes acquisitions in Northern Europe from our sample. A further extension of the model that tests for non-linear relationship between acquisition experience and the likelihood of subsequent acquisitions ends the section.

4.1 Descriptive statistics

The foundations of our regressions which are related to the likelihood of subsequent international acquisitions are the above mentioned 14,632 firm-country pairs resulting from 62 countries and 236 companies (see section 3.2). For each firm-country pair, there exist a number of variables to describe the country and the company as well as the aforementioned dependent and independent variables. The sample to test the performance of acquisitions is a lot smaller with only 130 cross-border acquisitions in 2007. To every acquisition there exist the same variables to describe the acquirer and the target country as in our firm-country pairs. A summary of the descriptive statistics of the variables used in both of our regressions can be seen from Table 6.

The table shows that in less than one percent of the country-company combinations, an international acquisition has taken place in 2007 (***international acquisitions***$_{2007}$, which is a dummy variable). Each company in our sample has approximately made one acquisition in Sweden between 2004 and 2006. Although 0.77 international acquisitions per company have been made on average for the same three year period, the experience in a certain host country (out of the 62 countries in our sample) is, with one percent on average, low. Since the median of all independent variables for acquisition experience is zero, we can conclude that less than half of the Swedish companies in our sample have undertaken any kind of acquisition between 2004 and 2006. In each different industry sectors there were on average 25.92 acquisitions or 1.74 acquisitions per company in the industry. There is a clustering of M&A activity in the industry sectors. Some sectors made between zero and 15 acquisitions, another group around 35 to 55 and only one industry made more than 70 acquisitions (see Diagram 3 in the Appendix). As can be seen from the dummy variable for joint ventures, 19 percent of Swedish companies use this type of growth strategy. The high mean of 0.70 is driven by few companies undertaking more than 30 joint ventures each. We therefore use the dummy variable in the regression as well since the high dispersion of the total number can distort the regression coefficient. Commonly, one would use a variable transformation such as the

natural logarithm (used for the number of employees for example). However, this is not possible for the number of joint ventures since the logarithm of zero is not defined.

Descriptive Statistics of Variables

	Variable	Minimum	Median	Mean	Maximum	Standard deviation
	Dependent Variables					
1.	International acquisitions $_{2007}$	0.00	0.00	0.01	1.00	0.08
2.	Acquisition performance $_{2007}$	-0.02	0.00	0.00	0.01	0.01
	Independent Variables					
	Acquisition experience $_{2004\text{-}2006}$					
3.	Sweden (home country)	0.00	0.00	0.97	24.00	2.46
4.	Northern Europe	0.00	0.00	0.31	12.00	1.10
5.	Rest of the world	0.00	0.00	0.46	14.00	1.43
6.	International	0.00	0.00	0.77	17.00	1.98
7.	Host country	0.00	0.00	0.01	11.00	0.16
	Industry momentum $_{2004\text{-}2006}$					
8.	Total no. of acquisitions	0.00	12.00	25.92	73.00	22.69
9.	Average no. of aquisitions per company	0.00	1.44	1.74	6.00	1.46
10.	Total no. of acquisitions (excluding own)	0.00	12.00	24.18	73.00	21.85
11.	Average no. of aquisitions per company (excluding own)	0.00	1.10	1.53	6.00	1.36
	Joint ventures $_{2006}$					
12.	No. of joint ventures	0.00	0.00	0.70	32.00	3.17
13.	Existence of joint ventures	0.00	0.00	0.19	1.00	0.40
14.	Cumulative abnormal returns $_{2006}$	-0.02	0.00	0.00	0.04	0.01
15.	Cancelled acquisitions $_{2004\text{-}2006}$	0.00	0.00	0.03	1.00	0.16
16.	CEO change $_{2004\text{-}2006}$	0.00	0.00	0.31	1.00	0.46
	Control Variables					
17.	Firm size	0.00	5.85	5.93	12.28	2.40
18.	Return on assets	-1.30	0.05	0.01	0.45	0.19
19.	Shareholder return	-0.70	0.22	0.25	3.05	0.49
20.	Acquirer slack resources	0.00	0.08	0.15	0.99	0.20
21.	Cultural distance	0.20	3.72	3.93	11.07	1.87
22.	Political uncertainty	0.00	0.45	0.39	0.73	0.19
23.	Country's development	0.54	0.88	0.85	0.97	0.10
24.	Change in GDP	0.01	0.05	0.05	0.12	0.03
25.	Exchange rate	-0.03	0.07	0.10	0.29	0.08

Table 6 Descriptive Statistics of Variables

The cumulative abnormal returns of acquisitions made by companies in 2006 have been zero on average. As regards to the cancelled acquisitions, only three percent of the companies had cancelled transactions between 2004 and 2006. Our last independent variable is CEO change,

which is one if no change of CEO took place *and* the company made acquisitions between 2004 and 2006. This is true for 31 percent of the firms in our sample.

The control variables have a few outliers at both ends of their scale as can be seen from the maxima and minima (Table 6). However, the standard deviations are at reasonable levels which indicate few problems related to outliers for our regressions.

4.1.1 Correlations of variables in the likelihood sample

The variable for international acquisitions in 2007 has low correlations with almost all other variables with the exception of host country experience (see Table 7). Nonetheless these findings are in line with other studies in the field (Table 1 in Collins et al., 2009, Table 1 in Haleblian at al., 2006). Significant correlations of interest exist between the number of employees (firm size) and international acquisitions experience (correlation coefficient: $\rho = 0.38$, significance level: $p < .05$). This indicates a link between international acquisitions and the size of a company. Also the use of joint ventures seems to be connected to the size of the company ($\rho = 0.38$, $p < .05$). Nevertheless both correlations are low. The five control variables for country effects are all significantly correlated with each other with the exception of exchange rates and cultural differences. Since some correlations are positive and others are negative, it is important to include all of them to account for the different effects. We have checked for multicollinearity between these variables with variance inflation factors (VIF) but no problematic results were obtained.[14]

[14] To check if multicollinearity between two variables exists one can regress them on each other in a linear model and calculate the so-called variance inflation factor which is a measure for how much one variable can explain the variance of another, similarly to an R^2 in an OLS regression. VIF above 5 can indicate multicollinearity. The highest VIF in our regressions was 1.67.

Correlations of Variables[a]

	Variable	1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	International acquisitions$_{2007}$																							
3	Sweden (home country)	0.03																						
4	Northern Europe	0.05	0.22																					
5	Rest of the world	0.12	-0.04	**0.21**																				
6	International	0.12	0.09	**0.71**	**0.84**																			
7	Host country	0.23	0.02	0.14	0.15	0.19																		
8	Total no. of acquisitions	0.04	**0.33**	0.06	0.13	0.13	0.02																	
9	Average no. of aquisitions per company	0.05	**0.36**	0.24	0.21	0.29	0.05	**0.73**																
10	Total no. of acquisitions (excluding own)	0.02	**0.22**	-0.02	0.06	0.03	0.01	**0.99**	**0.69**															
11	Average no. of aquisitions per company (excluding own)	0.03	**0.24**	0.01	0.09	0.07	0.01	**0.79**	**0.92**	**0.79**														
12	No. of joint ventures	0.01	0.19	0.05	-0.01	0.02	0.00	0.07	0.18	0.04	0.14													
13	Existence of joint ventures	0.05	0.08	0.07	0.11	0.12	0.02	0.03	0.16	0.01	0.07	**0.45**												
14	Cumulative abnormal return $_{2006}$	-0.02	**-0.14**	-0.05	-0.04	-0.06	-0.01	-0.11	**-0.11**	-0.08	-0.07	-0.01	-0.11											
15	Cancelled acquisitions $_{2004\text{-}2006}$	0.01	0.01	0.22	0.19	**0.26**	0.04	-0.06	0.14	-0.09	-0.07	0.04	0.26	0.01										
16	CEO change $_{2004\text{-}2006}$	0.05	0.25	0.24	0.20	**0.28**	0.05	0.16	0.25	0.11	0.13	0.20	0.21	-0.07	0.13									
17	Firm size	0.08	0.05	**0.24**	0.35	**0.38**	0.07	0.01	0.19	-0.03	0.09	0.26	**0.38**	-0.02	0.16	**0.24**								
18	Return on assets	0.02	0.11	**0.08**	**0.08**	0.10	0.02	0.09	0.05	0.07	0.02	0.05	0.09	0.12	0.05	0.14	**0.30**							
19	Shareholder return	0.01	0.03	0.05	0.01	0.04	0.01	0.00	0.06	-0.01	0.05	0.04	-0.01	**0.28**	-0.01	0.15	0.06	0.17						
20	Acquirer slack resources	-0.03	-0.13	-0.12	-0.12	**-0.15**	-0.03	-0.06	**-0.21**	-0.03	-0.16	-0.10	**-0.15**	0.15	-0.02	**-0.13**	**-0.38**	**-0.29**	0.01					
21	Cultural distance	-0.07	0.00	0.00	0.00	0.00	-0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
22	Political uncertainty	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**-0.19**			
23	Country's development	0.07	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**-0.21**	**0.46**		
24	Change in GDP	-0.06	0.00	0.00	0.00	0.00	-0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.20**	**-0.30**	**-0.44**	
25	Exchange rate	-0.04	0.00	0.00	0.00	0.00	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	**-0.39**	**-0.49**	**0.20**

[a] n = 14,632. Correlations in bold font are significant at $p < .05$.

Table 7 Correlations of variables in the likelihood sample

4.1.2 Correlations of variables in the performance sample

Our standard performance window for the abnormal returns is five days before to five days after the announcement date. We conduct our analysis also with four, three, two and one day windows. Additionally we use two time horizons from Haleblian et al. (2006) and two from Schoenberg (2006). We report all correlations of these different definitions in Table 8 below. From this table we can see that nearly no significant correlations exist between the different performance measures and the independent and control variables. The exceptions are the ***average number of acquisitions per company*** that measures the industry momentum, the ***number of joint ventures*** and the ***political uncertainty*** in the country of the target company. These results are not promising for our regression analysis since the absence of significant correlations could imply that there are no relationships between the dependent and independent variables. The OLS regressions might therefore not lead to any significant results due to the lack of relatedness between the performance measures and the independent variables.

Correlations of Variables[a]

	Variable	2a	2b	2c	2d	2e	2f	2g	2h	2i
2	Acquisition performance $_{2007}$									
2a	Symmetric 5-Day Window (-5 to +5 days)									
2b	Symmetric 4-Day Window (-4 to +4 days)	**0.92**								
2c	Symmetric 3-Day Window (-3 to +3 days)	**0.83**	**0.91**							
2d	Symmetric 2-Day Window (-2 to +2 days)	**0.76**	**0.84**	**0.91**						
2e	Symmetric 1-Day Window (-1 to +1 days)	**0.61**	**0.66**	**0.73**	**0.78**					
2f	Haleblian et al. (-5 to +15 days)	**0.78**	**0.78**	**0.70**	**0.64**	**0.52**				
2g	Haleblian et al. alternative (0 to +2 days)	**0.75**	**0.81**	**0.84**	**0.91**	**0.73**	**0.63**			
2h	Schoenberg (-10 to + 10 days)	**0.72**	**0.70**	**0.61**	**0.54**	**0.43**	**0.79**	**0.54**		
2i	Schoenberg alternative (-1 to + 0 days)	**0.49**	**0.55**	**0.62**	**0.64**	**0.86**	**0.43**	**0.53**	**0.30**	
3	Sweden (home country)	0.12	0.08	0.04	0.04	0.02	0.05	0.00	0.02	-0.03
4	Northern Europe	0.11	0.11	0.06	-0.01	-0.02	0.08	0.00	0.07	-0.02
5	Rest of the world	0.03	0.03	0.03	0.00	0.04	0.09	-0.04	0.07	0.09
6	International	0.10	0.10	0.06	0.00	0.02	0.12	-0.03	0.10	0.06
7	Host country	0.11	0.08	0.04	-0.01	-0.04	0.03	-0.04	0.07	-0.02
8	Total no. of acquisitions	0.17	0.10	0.09	0.10	0.07	0.17	0.02	0.15	0.07
9	Average no. of aquisitions per company	0.17	0.12	0.08	0.06	**-0.04**	0.14	0.00	0.08	**-0.06**
10	Total no. of acquisitions (excluding own)	0.13	0.06	0.07	0.10	0.06	0.14	0.03	0.13	0.06
11	Average no. of aquisitions per company (excluding own)	0.14	0.08	0.05	0.06	-0.01	0.12	0.03	0.09	-0.05
12	No. of joint ventures	**-0.10**	**-0.09**	**-0.06**	**-0.07**	**-0.07**	**-0.10**	**-0.08**	**-0.10**	**-0.08**
13	Existence of joint ventures	-0.02	0.02	-0.01	-0.02	0.07	0.08	0.00	0.01	0.03
14	Cumulative abnormal return $_{2006}$	-0.01	0.05	0.05	0.07	0.03	-0.02	0.07	-0.05	0.02
15	Cancelled acquisitions $_{2004\text{-}2006}$	0.04	0.04	0.02	0.01	-0.04	0.06	-0.03	-0.01	-0.02
16	CEO change $_{2004\text{-}2006}$	0.00	0.02	-0.02	0.01	0.01	0.09	0.02	0.15	-0.01
17	Firm size	0.08	0.10	0.08	0.03	0.02	0.15	0.01	0.15	-0.04
18	Return on assets	0.06	0.08	0.06	0.07	0.05	0.10	0.00	0.09	0.01
19	Shareholder return	-0.08	-0.05	-0.08	-0.11	0.09	-0.01	-0.08	0.05	0.05
20	Acquirer slack resources	-0.03	-0.05	-0.03	0.01	-0.07	-0.09	-0.02	-0.08	-0.08
21	Cultural distance	0.05	0.08	0.09	0.10	0.13	0.14	0.11	0.06	0.17
22	Political uncertainty	-0.08	-0.10	-0.13	-0.13	-0.11	**-0.17**	-0.11	-0.07	**-0.14**
23	Country's development	0.07	0.06	0.09	0.09	0.03	0.00	0.05	0.02	0.02
24	Change in GDP	0.00	-0.01	-0.07	-0.10	-0.02	-0.01	-0.08	0.00	-0.03
25	Exchange rate	0.11	0.08	0.06	0.05	0.07	0.13	0.08	0.13	0.07

[a] n = 130. Correlations in bold font are significant at $p < .1$.

Table 8 Correlations of variables in the performance sample

4.2 Multivariate regression results

To test our hypotheses developed in section 2.2 we run logit regressions for the likelihood and OLS regressions for the performance on the data described earlier. The next subsection will cover our results for acquisition experience. It will be followed by sections covering separately the industry momentum, joint venture experience, performance of past acquisitions, uncompleted acquisitions and CEO change. Those issues will be investigated individually first for the likelihood (sections 4.2.1 to 4.2.6) and then for the performance (section 4.2.7).

4.2.1 Acquisitions experience

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model 1.1a	Model 1.2a	Model 1.3a	Model 1.4a	Model 1.5a
Firm size		0.41 (0.00) ***	0.35 (0.00) ***	0.34 (0.00) ***	0.35 (0.00) ***	0.34 (0.00) ***
Return on assets		0.05 (0.96)	-0.11 (0.92)	-0.19 (0.86)	-0.07 (0.95)	-0.19 (0.86)
Shareholder return		0.21 (0.45)	0.22 (0.45)	0.33 (0.25)	0.17 (0.57)	0.31 (0.28)
Acquirer slack resources		-2.29 (0.03) **	-1.74 (0.09) *	-1.62 (0.10)	-1.79 (0.08) *	-1.64 (0.10) *
Cultural distance		-0.37 (0.00) ***	-0.37 (0.00) ***	-0.37 (0.00) ***	-0.34 (0.00) ***	-0.34 (0.00) ***
Political uncertainty		-0.22 (0.84)	-0.22 (0.84)	-0.22 (0.84)	-0.06 (0.95)	0.01 (1.00)
Country's development		8.63 (0.00) ***	8.63 (0.00) ***	8.63 (0.00) ***	8.56 (0.00) ***	8.40 (0.00) ***
Change in GDP		-16.55 (0.02) **	-16.55 (0.02) **	-16.55 (0.02) **	-15.40 (0.02) **	-15.02 (0.03) **
Exchange rate		-2.96 (0.20)	-2.96 (0.20)	-2.96 (0.20)	-2.94 (0.20)	-2.94 (0.20)
Acquisition experience $_{2004\text{-}2006}$						
Sweden (home country)	1a		0.08 (0.01) **	0.10 (0.00) ***	0.07 (0.03) **	0.09 (0.00) ***
Northern Europe	2a			0.05 (0.33)		-0.05 (0.51)
Rest of the world	3a			0.16 (0.00) ***		0.15 (0.00) ***
International	4a		0.12 (0.00) ***		0.10 (0.00) ***	
Host country	4a				0.19 (0.00) ***	0.32 (0.00) ***
Model Statistics						
Likelihood ratio test		254.6 (0.00) ***	286.3 (0.00) ***	289.8 (0.00) ***	292.4 (0.00) ***	300.4 (0.00) ***
Wald test		183.9 (0.00) ***	235.5 (0.00) ***	245.9 (0.00) ***	272.7 (0.00) ***	291.6 (0.00) ***
McFadden Pseudo-R^2		0.135	0.152	0.154	0.156	0.160

[a] n = 14,632. Regressions coefficents with p-statistics for the Wald-test (z-scores). ***p < 0.01, **p < 0.05, *p < 0.10.

Table 9 Regression results for the effect of acquisition experience on the likelihood of acquisitions

From the model 1.1a[15] in Table 9 we can see that most of the control variables are significant with the exception of ***return on assets***, ***shareholder return***, ***political uncertainty*** and ***exchange rate***. ***Firm size***, ***cultural distance*** and ***country's development*** have the expected signs as outlined in section 3.3.4. ***Acquirer slack resources*** have a significant negative effect on the likelihood of acquisitions which implies that companies are less likely to undertake M&As when having high cash resources. The ***change in GDP*** has a negative and significant effect on future acquisitions in a country in our models. These last two control variables are unfortunately not in line with our predictions. All control variables will further be discussed in section 4.3.1. The model's statistics of likelihood ratio test and Wald test are significant, which implies that the specifications of the regression models have explanatory power for the likelihood of acquisitions. The pseudo-R^2 of 0.135 will be our reference point to see if any further variables add more explanatory power to the M&A behavior of companies in certain countries. The higher the pseudo-R^2 the better is the model in explaining these M&A activities.

To test our hypotheses we add further variables, home country (Sweden) and international acquisition experience, to the basic model 1.1a, which only incorporates the control variables. From model 1.2a, we see that home country and international acquisition experience have a positive effect on the likelihood of foreign acquisitions being made in 2007. Moving on to the

[15] The numbering of models (= specification of regression equations) follows the focal section (1.1 to 1.5 for acquisition experience, 2.1 to 2.4 for industry momentum, etc.) and has an "a" or "b" attached for likelihood and performance respectively.

third model (1.3a), we study past acquisition experience in Sweden, Northern Europe and "the rest of the world" separately. If we divide international experience into Northern Europe and "the rest of the world", experience from Northern Europe is insignificant for future international acquisitions (see model 1.3a). Our first hypothesis (1a) examines whether past acquisitions in Sweden have a positive influence on the likelihood of subsequent acquisitions. As can be seen in the models 1.2a to 1.5a, this hypothesis is supported by our regressions as all four models have a positive and significant coefficient for acquisition experience in Sweden. Our second hypothesis (2a) is that past M&As in Northern Europe have a positive effect on the likelihood of subsequent acquisition. This hypothesis is not supported by our empirical evidence as the coefficient for acquisition experience in Northern Europe is once positive (model 1.3a) and once negative (model 1.5a) and it is not significant in either of the two cases. The third hypothesis (3a) states that past acquisitions in the rest of the world (that is, excluding Sweden and Northern Europe), have a positive influence on the likelihood of subsequent acquisitions. This third hypothesis can not be rejected as the coefficients in models 1.3a and 1.5a are positive and highly significant ($p<0.01$). Thus, hypotheses 1a and 3a seem to be valid whereas hypothesis 2a needs to be rejected. Hypothesis 4a examines whether previous M&As in a given host country increases the likelihood of subsequent acquisitions more than does previous acquisition experience in any foreign country. This hypothesis receives support from the results of model 1.4a since host country experience has a greater influence (higher coefficient) on subsequent acquisitions than international experience. Model 1.5a is a combined testing, incorporating the effects of past acquisition experience in Sweden, Northern Europe, "the rest of the world" and host country experience. It has the highest predictive power with a pseudo-R^2 of 0.16 underlining the above results for the effect of past acquisition experience on the likelihood of subsequent acquisitions being made in 2007.

4.2.2 Industry momentum

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model 2.1a	Model 2.2a	Model 2.3a	Model 2.4a
Firm size		0.42 (0.00) ***	0.38 (0.00) ***	0.42 (0.00) ***	0.40 (0.00) ***
Return on assets		-0.61 (0.57)	0.02 (0.98)	-0.43 (0.69)	0.03 (0.98)
Shareholder return		0.15 (0.63)	0.16 (0.59)	0.16 (0.59)	0.16 (0.58)
Acquirer slack resources		-2.46 (0.02) **	-1.98 (0.06) *	-2.51 (0.02) **	-2.14 (0.04) **
Cultural distance		-0.37 (0.00) ***	-0.37 (0.00) ***	-0.37 (0.00) ***	-0.37 (0.00) ***
Political uncertainty		-0.22 (0.84)	-0.22 (0.84)	-0.22 (0.84)	-0.22 (0.84)
Country's development		8.63 (0.00) ***	8.63 (0.00) ***	8.63 (0.00) ***	8.63 (0.00) ***
Change in GDP		-16.55 (0.02) **	-16.55 (0.02) **	-16.55 (0.02) **	-16.55 (0.02) **
Exchange rate		-2.96 (0.20)	-2.96 (0.20)	-2.96 (0.20)	-2.96 (0.20)
Industry momentum $_{2004\text{-}2006}$					
Total no. of acquisitions	5a	0.02 (0.00) ***			
Average no. of aquisitions per company	5a		0.20 (0.00) ***		
Total no. of acquisitions (excluding own)	5a			0.02 (0.00) ***	
Average no. of aquisitions per company (excluding own)	5a				0.18 (0.01) **
Model Statistics					
Likelihood ratio test		277.1 (0.00) ***	264.1 (0.00) ***	268.6 (0.00) ***	260.4 (0.00) ***
Wald test		210.2 (0.00) ***	198.6 (0.00) ***	201.9 (0.00) ***	194.0 (0.00) ***
McFadden Pseudo-R^2		0.147	0.141	0.143	0.139

[a] n = 14,632. Regressions coefficents with p-statistics for the Wald-test (z-scores). ***p < 0.01, **p < 0.05, *p < 0.10.

Table 10 Regression results for the effect of industry momentum on the likelihood of acquisitions

The second series of models regards the industry momentum. We are using these models in order to test our fifth hypothesis (5a) that examines whether more past acquisitions in an industry in particular leads to more subsequent acquisitions by companies in that given industry. All of these models in the second set (models 2.1a to 2.4a) include the same set of control variables as did the first models (models 1.1a to 1.5a). All four versions of industry momentum measures increase the fit of the model as can be seen from the increase in the pseudo-R^2 (between 0.139 and 0.147, see Table 10) compared to the base line case (0.135, model 1.1a). Models 2.1a to 2.4a support hypothesis 5a that firms engage more in acquisitions the more actively the industry is involved in M&As. This is seen by the positive and significant coefficients in Table 10. The total number of acquisitions (model 2.1a) in the industry seems to be the best measure when comparing the model statistics since it has the highest pseudo-R^2 (0.147).

4.2.3 Joint ventures

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model 3.1a	Model 3.2a	Model 4.1a	Model 5.1a
Firm size		0.43 (0.00) ***	0.38 (0.00) ***	0.37 (0.00) ***	0.42 (0.00) ***
Return on assets		-0.02 (0.98)	0.17 (0.88)	-0.69 (0.73)	0.08 (0.94)
Shareholder return		0.23 (0.41)	0.22 (0.43)	0.41 (0.30)	0.20 (0.48)
Acquirer slack resources		-2.32 (0.03) **	-2.34 (0.03) **	-0.97 (0.40)	-2.16 (0.04) **
Cultural distance		-0.37 (0.00) ***	-0.37 (0.00) ***	-0.43 (0.00) ***	-0.37 (0.00) ***
Political uncertainty		-0.22 (0.84)	-0.22 (0.84)	-0.01 (1.00)	-0.22 (0.84)
Country's development		8.63 (0.00) ***	8.63 (0.00) ***	9.05 (0.00) ***	8.63 (0.00) ***
Change in GDP		-16.55 (0.02) **	-16.55 (0.02) **	-10.82 (0.14)	-16.55 (0.02) **
Exchange rate		-2.96 (0.20)	-2.96 (0.20)	-1.26 (0.61)	-2.96 (0.20)
Joint ventures $_{2006}$					
No. of joint ventures	6a/7a	-0.03 (0.22)			
Existence of joint ventures	6a/7a		0.30 (0.19)		
Cumulative abnormal return $_{2006}$	8a			-33.04 (0.13)	
Cancelled acquisitions $_{2004\text{-}2006}$	9a				-0.32 (0.55)
Model Statistics					
Likelihood ratio test		256.6 (0.00) ***	256.3 (0.00) ***	181.8 (0.00) ***	255.0 (0.00) ***
Wald test		186.0 (0.00) ***	187.4 (0.00) ***	137.1 (0.00) ***	185.1 (0.00) ***
McFadden Pseudo-R^2		0.136	0.136	0.132	0.136

[a] n = 14,632 (for model 4.1a n = 5,332). Regressions coefficents with p-statistics for the Wald-test (z-scores).
***p < 0.01, **p < 0.05, *p < 0.10.

Table 11 Regression results for the effect of joint ventures, CAR and cancelled acquisitions on the likelihood of acquisitions

With our third regression model (including 3.1a and 3.2a in Table 11), we are testing our sixth and seventh hypotheses. Hypothesis 6a predicted that a higher number of past joint ventures would lead to a higher likelihood of subsequent acquisitions. Hypothesis 7a on the other hand predicted the contrary by stating that a higher number of joint ventures would lead to a lower likelihood of that firm making subsequent acquisitions. Taking the number of joint ventures (model 3.1a) and dummy variable for joint ventures (model 3.2a) respectively gives mixed results for the sign of the coefficients but neither of them is significant. Also the model statistics show almost no improvement compared to the base model 1.1a (the pseudo-R^2 is 0.136 for models 3.1a and 3.2a which is very close to the pseudo-R^2 of 0.135 of the base model 1.1a). At this point neither hypothesis 6a (learning effects of joint ventures) nor 7a (overuse of joint ventures) are supported by our regression results as the coefficients for joint ventures are not significant.

4.2.4 Performance of past acquisitions

Only 86 companies in our sample had acquisitions in 2006, which in turn reduces the total sample to 5,332 firm-country pairs[16] when investigating the effect of the performance of past

[16] 86 firms × 62 countries = 5'332 firm-country pairs.

acquisitions on subsequent acquisitions. In this smaller sample, only three of the control variables (firm size, cultural distance and country's development) remain significant as can be seen from model 4.1a in Table 11 on page 52. Although the coefficient of the cumulative abnormal returns in 2006 is negative, a p-value of 0.13 indicates very low significance. Model 4.1a does therefore not support our hypothesis 8a. This eighth hypothesis stated that a higher performance of past acquisitions should increase the likelihood of subsequent acquisitions, which is thus not the case in our sample.

4.2.5 Cancelled acquisitions

Our ninth hypothesis (9a) predicted that past uncompleted acquisitions would decrease the likelihood of those companies making subsequent acquisitions. However, we could not find any effect of cancelled acquisitions on future acquisition activity as can be seen from model 5.1a in Table 11 on page 52. Indeed, the coefficient is negative but not significant.

4.2.6 CEO

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model 6.1a	Model 6.2a	Model 6.3a	Model 6.4a
Firm size		0.35 (0.00) ***	0.34 (0.00) ***	0.33 (0.00) ***	0.31 (0.00) ***
Return on assets		-0.08 (0.95)	-0.30 (0.80)	-0.23 (0.83)	-0.51 (0.65)
Shareholder return		0.16 (0.59)	0.14 (0.66)	0.27 (0.35)	0.26 (0.40)
Acquirer slack resources		-1.80 (0.08) *	-1.38 (0.19)	-1.77 (0.08) *	-1.43 (0.15)
Cultural distance		-0.34 (0.00) ***	-0.34 (0.00) ***	-0.34 (0.00) ***	-0.34 (0.00) ***
Political uncertainty		-0.06 (0.95)	-0.06 (0.96)	0.01 (0.99)	0.02 (0.99)
Country's development		8.56 (0.00) ***	8.56 (0.00) ***	8.40 (0.00) ***	8.38 (0.00) ***
Change in GDP		-15.40 (0.02) **	-15.41 (0.02) **	-15.02 (0.03) **	-15.02 (0.03) **
Exchange rate		-2.94 (0.20)	-2.94 (0.20)	-2.94 (0.20)	-2.96 (0.19)
Acquisition experience $_{2004\text{-}2006}$					
Sweden (home country)		0.07 (0.03) **	0.04 (0.24)	0.09 (0.00) ***	0.07 (0.03) **
Northern Europe				-0.05 (0.46)	-0.08 (0.29)
Rest of the world				0.17 (0.00) ***	0.16 (0.00) ***
International		0.10 (0.00) ***	0.09 (0.00) ***		
Host country		0.19 (0.00) ***	0.20 (0.00) ***	0.32 (0.00) ***	0.34 (0.00) ***
CEO change $_{2004\text{-}2006}$ (only control dummy)		0.01 (0.96)	-1.04 (0.02) **	0.21 (0.38)	-0.89 (0.06) *
CEO change $_{2004\text{-}2006}$ (interaction term with past acquisition)	10a		0.20 (0.00) ***		1.32 (0.00) ***
Model Statistics					
Likelihood ratio test		292.4 (0.00) ***	303.1 (0.00) ***	301.2 (0.00) ***	312.8 (0.00) ***
Wald test		272.7 (0.00) ***	268.9 (0.00) ***	292.7 (0.00) ***	287.6 (0.00) ***
McFadden Pseudo-R^2		0.156	0.161	0.160	0.166

[a] n = 14,632. Regressions coefficents with p-statistics for the Wald-test (z-scores). ***p < 0.01, **p < 0.05, *p < 0.10.

Table 12 Regression results for the effect of no change in CEO and past acquisition experience on the likelihood of acquisitions

To test for the effect of keeping the CEO and having done acquisitions in the past on the likelihood of subsequent acquisitions, we use variables for past acquisition experience (Sweden, Northern Europe, rest of the world, international and host country), a dummy variable for the CEO change, and a dummy variable for the interaction term between the CEO

change and past acquisition experience as can be seen from Table 12. Our variable of interest is the interaction term.

The variables for acquisition experience have largely the same signs as in the before mentioned models 1.4a and 1.5a. If we use only the dummy variable for CEO change without the interaction with past acquisition experience (models 6.1a and 6.3a), the dummy is not significant. The addition of the interaction term of the CEO variable and past acquisition experience increases the pseudo-R^2. Also both the CEO dummy and the dummy for the interaction term are significant (models 6.2a and 6.4a). Only keeping the CEO seems to reduce the likelihood of subsequent acquisitions (negative sign for the dummy). The interaction term on the other hand has a positive sign, thereby supporting our hypothesis 10a which stated that keeping the same CEO and having past acquisition experience in a company increases the likelihood of subsequent acquisitions.

4.2.7 Results of performance regressions

Performance of acquisitions - Regression results[a]

	Model 1.1b (symmetric 5-day window)	Model 1.2b (0 to +1-day window)	Model 1.3b (-5 to +15-day window)
Constant	-0.0381 (0.05) **	-0.0497 (0.18)	-0.0161 (0.21)
Firm size	0.0000 (0.85)	-0.0008 (0.10)	0.0001 (0.61)
Return on assets	0.0043 (0.49)	-0.0003 (0.98)	0.0039 (0.35)
Shareholder return	-0.0017 (0.32)	0.0034 (0.30)	0.0001 (0.95)
Acquirer slack ressources	-0.0036 (0.52)	-0.0105 (0.32)	-0.0037 (0.33)
Cultural distance	0.0003 (0.48)	0.0019 (0.01) **	0.0003 (0.27)
Political uncertainty	-0.0030 (0.63)	-0.0142 (0.23)	-0.0055 (0.19)
Country's development	0.0380 (0.04) **	0.0611 (0.08) *	0.0175 (0.15)
Change in GDP	0.0586 (0.17)	0.0498 (0.55)	0.0157 (0.59)
Exchange rate	0.0187 (0.11)	0.0254 (0.26)	0.0089 (0.26)
Model Statistics			
F-statistic	0.9 (0.54)	1.5 (0.17)	1.2 (0.32)
Multiple R-squared	0.06	0.10	0.08
Adjusted R-squared	-0.01	0.03	0.01

[a] n = 130. Regressions coefficents with p-statistics for the t-test. ***p < 0.01, **p < 0.05, *p < 0.10.

Table 13 Regression results for the effect of the control variables on performance measure (different windows)

As mentioned in section 4.1.2, only very few significant correlations could be found between the performance measures and the control variables. From Table 13 we can see that although some of the regression coefficients of the variables are significant, the F-statistic, which measures the overall significance of a model, is not significant with p-values of 0.54, 0.17 and 0.32 for model 1.1b, 1.2b and 1.3b respectively. This means that adding regressors to the model apart from the constant is not explaining any of the variance of the performance measure. We here report the symmetric 5-day window, the 0 to 1-day window and the -5 to

15-day window which were the most significant of the nine different models of measuring the abnormal returns of the acquisition (see section 3.3.1).

In a next step, we regressed the control variables individually against our nine different performance measure definitions.[17] The results were disappointing as well. Individually some control variables explained small fractions of the variance of the measures (R^2 of 0.04 or lower) but there was no pattern in the results. The control variables seem to be unrelated to the performance as shown by the nonsignificance of the regression results. Consequently we left out the control variables when testing for our hypotheses because their estimation would only create noise.

Performance of acquisitions - Regression results[a]

	Hypothesis	Model 1.4b	Model 1.5b	Model 1.6b
Constant		-0.001 (0.30)	-0.002 (0.09) *	0.000 (0.74)
Acquisition experience $_{2004-2006}$				
Sweden (home country)	1b	0.0001 (0.31)		
Northern Europe	2b	0.0001 (0.76)		
Rest of the world	3b	0.0001 (0.57)		
International	4b			
Host country	4b	0.0002 (0.60)		
Industry momentum $_{2004-2006}$				
Average no. of aquisitions per company	5b		0.001 (0.06) *	
Joint Ventures $_{2006}$				
No. of joint ventures	6b/7b			0.000 (0.26)
Model Statistics				
F-statistic		0.8 (0.56)	1.5 (0.17)	1.3 (0.25)
Multiple R-squared		0.02	0.03	0.01
Adjusted R-squared		-0.01	0.02	0.00

[a] n = 130. Regressions coefficents with p-statistics for the t-test. ***p < 0.01, **p < 0.05, *p < 0.10.

Table 14 Regression results for dependent variables and performance of acquisitions (symmetric 5-day window)

There are no significant results to report for our hypotheses (1b to 10b). Table 14 shows that none of the model specifications are meaningful in terms of explaining the variance of the performance of acquisitions (R^2 is very low or even negative for the adjusted R^2 in model 1.4b). We have conducted the analysis for all nine performance variable definitions and also the other hypotheses for CEO change, cancelling of transactions and past acquisition performance (see Table 25 in the Appendix). Again no significant results could be obtained.

[17] Symmetric windows of five, four, three, two and one days as well as the two versions from Haleblian et al. (2006) and the two from Schoenberg (2006) as described in section 3.3.1.

4.3 Comparison of the expected signs and the actual signs of the control variables

4.3.1 Control variables in the likelihood regressions

Level	Control Variable	Expected sign for likelihood of acquisitions	Actual sign for likelihood of acquisitions	Significant (at 10%)?
Firm level	Firm size	+	+	yes
	Return on assets	+	+/−	no
	Shareholder return	+	+	no
	Acquirer slack resources	+	−	yes[18]
Country level	Cultural distance	−	−	yes
	Political uncertainty	−	+/−	no
	Country's development	+	+	yes
	Change in GDP	+	−	yes[19]
	Exchange rate	+	−	no

Table 15 Comparison of the expected signs and the actual signs of the control variables in the likelihood regressions

As expected, the ***firm size*** and the ***shareholder returns*** have a positive influence on the likelihood of subsequent acquisitions. However, only the ***firm size*** variable is significant. This implies that for a Swedish firm, having more employees (which implies having more people that could be involved in the acquisition) does seem to facilitate the acquisition process as it increases the likelihood of a company making more acquisitions. ***Return on assets*** shows different signs for the regression coefficient but is not significant in any of the models. The variable ***acquirer slack resources*** turned out to be significant and, contrary to our forecasts, negative. This means that the fewer slack resources a company has, the higher the likelihood of that firm making subsequent acquisitions. This could mean that when a company has fewer resources available, it uses acquisitions instead of internal growth to expand internationally since it is less risky and faster (Gaughan, 2007). The variable for ***acquire slack resources*** is not significant in four of the models (see footnote 18). Since these are the only exceptions to our results, we think that in general there is a significant negative effect of ***acquire slack resources*** for Swedish firms on the likelihood of subsequent international acquisitions as outlined above. The same relationship has been found by Haleblian et al. (2006) for the US banking industry despite their prediction of a positive impact of acquirer slack resources.

Cultural distance and ***political uncertainty***[20] both have, as expected, a negative influence on the likelihood of acquisitions. The variable for cultural distance is significant, which implies that the likelihood of an acquisition being made in a country with large cultural distance compared to Sweden is lower. Thus, Swedish firms prefer not to make acquisitions in

[18] Exceptions: not significant for models 6.2a and 6.4a for the effect of no change in CEO combined with past acquisition experience on the likelihood of acquisitions, as well as for models 1.3a and 4.1a.
[19] Exception: model 4.1a.
[20] Exception: models 1.5a, 6.3a and 6.4a.

countries that are very different from Sweden. ***Political uncertainty*** is not significant in any of the regressions. As regards the ***country's development***, it has, as expected, a positive and significant effect on the likelihood. Swedish firms are thus more likely to acquire a company in a country that has a higher level of development. Finally, the ***change in GDP*** and the ***exchange rate*** have, opposite to our hypotheses, a negative sign. ***Change in GDP*** is a significant variable which is not the case of the ***exchange rate***. An increase in a country's GDP does thus decrease the likelihood that a Swedish firm will make an acquisition there. Previous studies have argued for a positive relationship between the likelihood of acquisitions in a country and its GDP growth (Barkema & Vermeulen, 1998, Collins et al., 2009, Nadolska & Barkema, 2007) but none of them found any significant effect. We followed their argumentation but found a negative relationship. Our lagged variable, ***change in GDP***, in contrast to other studies only refers to 2006 since we have only 2007 as our focal year to look at subsequent acquisitions. A possible explanation for the unexpected negative relationship could be that high growth rates in GDP in 2006 were correlated to other country characteristics, which made acquisitions less promising.

4.3.2 Control variables in the performance regressions

Level	Control Variable	Expected sign for performance of acquisitions	Actual sign for performance of acquisitions	Significant (at 10%)?
Firm level	Firm size	–	–/+	no
	Return on assets	+	–/+	no
	Shareholder return	+	–/+	no
	Acquirer slack resources	–/+	–	no
Country level	Cultural distance	–	+	no[21]
	Political uncertainty	–	–	no
	Country's development	+	+	no[22]
	Change in GDP	+	+	no
	Exchange rate	+	+	no

Table 16 Comparison of the expected signs and the actual signs of the control variables in the performance regressions

For the performance regressions there emerged no pattern for the coefficients of the control variables and their significance. Some variables such as ***country's development*** were significant in some models (Table 16) but not when tested individually. Since the models' statistics (F-statistics, R^2) showed that the all models are not well specified, any significance of the variables can occur just by chance. If we test our nine control variables on a ten percent significance level, on average about one variable will show a significant coefficient because

[21] Exception: model 1.2b.
[22] Exception: model 1.1b and 1.2b.

that is the statistical error (α-error) that we accept. We can therefore not draw any conclusions for the effect of the control variables on the performance of subsequent international acquisitions.

4.4 Robustness checks of the likelihood model

To check the robustness of our results, we modify the regression equations in order to test if the effects from the models in section 4.1.2 are valid. We begin with testing some of the hypotheses jointly in order to account for any correlations between our independent variables and spillover effects, which could distort our results. The variables for past acquisition experience are therefore tested with industry momentum, joint ventures, cumulative abnormal returns and cancelled acquisitions respectively. The results can be seen in Table 17 and Table 18. We omit the CEO variable since it has already been jointly tested (see section 4.2.6).

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model J.1a	Model J.2a	Model J.3a	Model J.4a
Acquisition experience $_{2004-2006}$					
Sweden (home country)	1a	0.04 (0.26)	0.06 (0.07) *	0.05 (0.09) *	0.05 (0.09) *
Northern Europe	2a				
Rest of the world	3a				
International	4a	0.08 (0.00) ***	0.10 (0.00) ***	0.09 (0.00) ***	0.10 (0.00) ***
Host country	4a	0.23 (0.00) ***	0.20 (0.00) ***	0.23 (0.00) ***	0.21 (0.00) ***
Industry momentum $_{2004-2006}$					
Total no. of acquisitions	5a	0.02 (0.00) ***			
Average no. of aquisitions per company	5a		0.04 (0.59)		
Total no. of acquisitions (excluding own)	5a			0.02 (0.00) ***	
Average no. of aquisitions per company (excluding own)	5a				0.16 (0.05) **
Model Statistics					
Likelihood ratio test		302.9 (0.00) ***	292.7 (0.00) ***	302.9 (0.00) ***	296.3 (0.00) ***
Wald test		281.3 (0.00) ***	273.6 (0.00) ***	281.3 (0.00) ***	278.1 (0.00) ***
McFadden Pseudo-R^2		0.161	0.156	0.161	0.158

[a] n = 14,632. Regressions coefficents with p-statistics for the Wald-test (z-scores). ***p < 0.01, **p < 0.05, *p < 0.10.

Table 17 Regression results for joint testing of hypotheses on the likelihood of acquisitions (1). (All nine control variables are used but not reported in the table)

Likelihood of acquisitions - Regression results[a]

	Hypothesis	Model J.5a	Model J.6a	Model J.7a	Model J.8a
Acquisition experience $_{2004-2006}$					
Sweden (home country)	1a	0.08 (0.01) **	0.06 (0.06) *	-0.01 (0.90)	0.07 (0.04) **
Northern Europe	2a				
Rest of the world	3a				
International	4a	0.10 (0.00) ***	0.12 (0.00) ***	0.05 (0.07) *	0.11 (0.00) ***
Host country	4a	0.19 (0.00) ***	0.20 (0.00) ***	0.23 (0.00) ***	0.19 (0.00) ***
Joint ventures $_{2006}$					
No. of joint ventures	6a/7a	-0.03 (0.30)			
Existence of joint ventures	6a/7a		0.48 (0.04) **		
Cumulative abnormal return $_{2006}$	8a			-27.48 (0.22)	
Cancelled acquisitions $_{2004-2006}$	9a				-0.79 (0.13)
Model Statistics					
Likelihood ratio test		293.7 (0.00) ***	296.4 (0.00) ***	196.6 (0.00) ***	295.1 (0.00) ***
Wald test		272.4 (0.00) ***	278.3 (0.00) ***	177.2 (0.00) ***	279.0 (0.00) ***
McFadden Pseudo-R^2		0.156	0.158	0.143	0.157

[a] n = 14,632 (for model J.7a n = 5,332). Regressions coefficents with p-statistics for the Wald-test (z-scores).
***p < 0.01, **p < 0.05, *p < 0.10.

Table 18 Regression results for joint testing of hypotheses on the likelihood of acquisitions (2)

In two of the models (J.1a and J7.a) the variable for home country acquisition experience is not significant anymore. The industry momentum measure of average number of acquisitions per company is also not significant anymore if we add acquisitions experience as a further variable (model J.2a). The other industry momentum measures still show the same signs as in the individual regressions (see Table 10 and Table 17). In contrast to the single testing of the joint venture hypotheses, which did not lead in any significant results, the joint testing reveals a positive relationship between joint ventures and subsequent acquisitions (model J.6a). Neither the effect of cumulative abnormal returns of transactions in 2006 (model J.7a) nor the cancellation of transactions between 2004 and 2006 (model J.8a) show any significant results (see Table 18).

Likelihood of acquisitions (excluding acquisitions in Northern Europe in 2007) - Regression results[a]

	Hypothesis	Model 1.1a	Model 1.2a	Model 1.3a	Model 1.4a	Model 1.5a
Acquisition experience $_{2004-2006}$						
Sweden (home country)	1a		0.03 (0.62)	0.07 (0.14)	0.04 (0.45)	0.07 (0.14)
Northern Europe	2a			-0.07 (0.45)		-0.07 (0.43)
Rest of the world	3a			0.19 (0.00) ***		0.16 (0.00) ***
International	4a		0.13 (0.00) ***		0.09 (0.00) ***	
Host country	4a				0.63 (0.00) ***	0.55 (0.00) ***
Model Statistics						
Likelihood ratio test		202.4 (0.00) ***	223.7 (0.00) ***	231.8 (0.00) ***	235 (0.00) ***	240.6 (0.00) ***
Wald test		141.7 (0.00) ***	180.4 (0.00) ***	205.8 (0.00) ***	228.7 (0.00) ***	244.5 (0.00) ***
McFadden Pseudo-R^2		0.156	0.172	0.179	0.181	0.185

[a] n = 13,924. Regressions coefficents with p-statistics for the Wald-test (z-scores). ***p < 0.01, **p < 0.05, *p < 0.10.

Table 19 Regression results for the past acquisition experience on the likelihood of acquisitions (excluding acquisitions in Northern Europe in 2007)

As mentioned in the description of the sample (section 3.2), many Swedish companies acquire companies in Northern Europe (Denmark, Finland and Norway). The results of our regressions could be driven by these acquisitions. We therefore tested our hypotheses again by excluding acquisitions made in these three countries. The results are largely in line with those from section 4.2. A notable exception is that the home country variable is not significant in any of the models (see Table 19). We can thus conclude that the home country variable shows the correlation of Swedish companies acquiring companies in Northern Europe and past acquisition experience in Sweden. This implies that for the companies that make subsequent acquisitions in Northern Europe, having past acquisition experience in Sweden is determinant. However, the past acquisition experience in Sweden seems not to be a driver of international M&A activity in other countries than Denmark, Finland and Norway.

4.5 Further extensions of the likelihood model

Likelihood of acquisitions - Regression results[a]

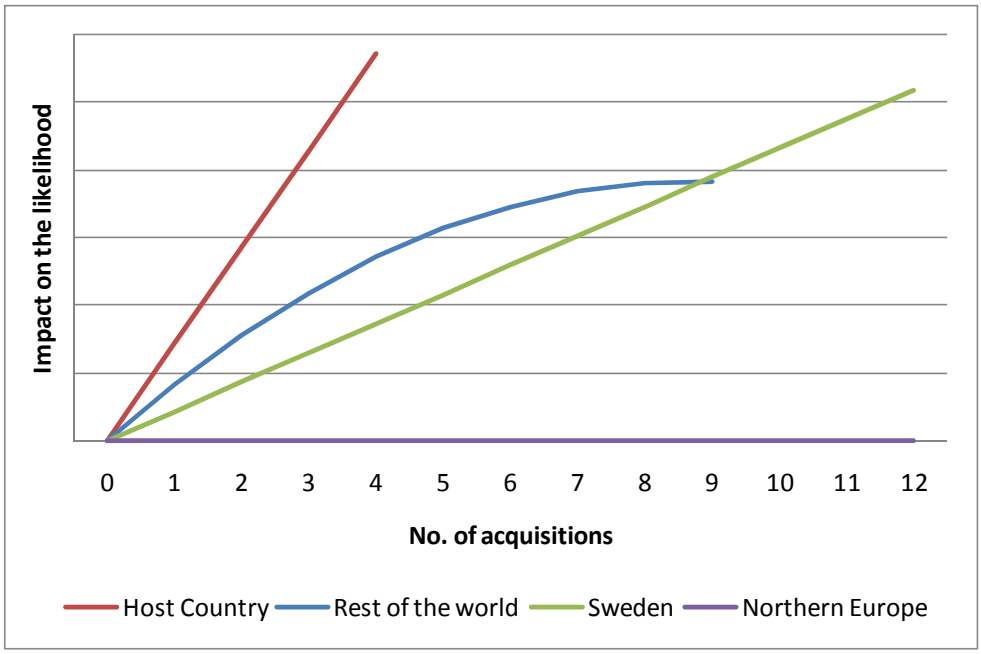
	Hypothesis	Model U1	Model U2
Acquisition experience $_{2004\text{-}2006}$			
Sweden (home country)	1a	0.22 (0.01) ***	0.11 (0.15)
Northern Europe	2a	0.16 (0.31)	
Rest of the world	3a	0.44 (0.00) ***	
International	4a		0.31 (0.00) ***
Host country	4a	0.71 (0.00) ***	0.74 (0.00) ***
Sweden (home country)^2		-0.01 (0.15)	0.00 (0.68)
Northern Europe^2		-0.02 (0.22)	
Rest of the world^2		-0.03 (0.00) ***	
International^2			-0.02 (0.00) ***
Host country^2		-0.04 (0.12)	-0.06 (0.00) ***
Model Statistics			
Likelihood ratio test		323.2 (0.00) ***	311.4 (0.00) ***
Wald test		308.3 (0.00) ***	302.4 (0.00) ***
McFadden Pseudo-R^2		0.172	0.166

[a] n = 14,632. Regressions coefficents with p-statistics for the Wald-test (z-scores).
***p < 0.01, **p < 0.05, *p < 0.10.

Table 20 Regression results for the likelihood of subsequent international acquisitions

Inspired by Nadolska and Barkema (2007)'s idea of a U-shaped relationship between experience and the success rate of acquisitions, we further investigated if the likelihood to make subsequent international acquisitions has a non-linear relationship with acquisition experience. We therefore tested for a quadratic relationship by adding variables for the squared number of acquisitions in Sweden, Northern Europe, the rest of the world and in the host country as well as for the international variable.

The results from models U1 and U2 in Table 20 reveal significant quadratic relationships for most of the international acquisition experience (rest of the world, international and host country[23]) but not for acquisition experience in Northern Europe or in Sweden. The negative coefficients before the quadratic terms indicate that one more past acquisition has less impact on the likelihood of subsequent acquisitions than the one before had.



Graph 1 Non-linear relationship between acquisition experience and the likelihood of subsequent international acquisitions[24]

As can be seen from Graph 1, an increasing number of acquisitions in the ***host country*** and ***the rest of the world*** have a larger influence on the likelihood of subsequent acquisitions than home country (Sweden) experience has. However, the variable ***rest of the world*** has a decreasing influence for each further acquisition.

[23] Except for model U1 for host country.

[24] The beginning and end point of the curves represent the interval of the number of acquisitions per company in those countries in our sample. Although there are some larger outliers, we can not be sure about the exact shape of the curve in intervals without data (e.g. most companies made zero to four acquisitions in a host country and one outlier made eleven. We therefore do not know the exact relationship in the interval between four and eleven acquisitions).

5 Discussion of the results

In this section a discussion of the likelihood model and of the performance model are conducted. More precisely, the implications of the signs of the coefficients and of the significance or nonsignificance of the variables are discussed.

5.1 Discussion of the likelihood model

A summary of our results for the independent variables from section 4.2 is presented in Table 21. Most of the variables for acquisition experience as well as for industry momentum and CEO change were significant and had the expected signs. The implications of the significant variables and potential reasons for the insignificance of the other variables are discussed further in this section.

Independent Variable	Expected sign for likelihood of acquisitions	Actual sign for likelihood of acquisitions	Significant (at 10%)?
Acquisition experience in			
Sweden (home country)	+	+	yes[25]
Northern Europe	+	+/–	no
Rest of the world	+	+	yes
International	+	+	yes
Host country	+	+	yes
Industry momentum	+	+	yes[26]
Number of joint ventures/existence of joint ventures	+/–	+/–	no[27]
Cumulative abnormal returns	+	–	no
Cancelled acquisitions	–	–	no
CEO change AND past acquisition experience	+	+	yes

Table 21 Comparison of the expected signs and the actual signs of the independent variables in the likelihood regressions

Regarding the likelihood of subsequent acquisitions, our thesis confirms the findings of previous research. Indeed, just like Collins et al. (2009) and Haleblian et al. (2006) to name just two of them, we found that past national and international acquisition experience does increase the likelihood of subsequent acquisitions. This suggests that Swedish firms, just as their American and Dutch counterparts, learn from their past acquisitions as past acquisition

[25] Exceptions: model 6.2a, J.1a and J.7a.
[26] Exception: model J.2a.
[27] Exception: model J.6a.

experience increases the likelihood of subsequent acquisitions. Moreover, we found that host country acquisition experience had more influence than past international acquisition experience, which corresponds to the findings of Collins et al. (2009) for American firms. We can thus conclude that Swedish firms take advantage of their previous knowledge both about acquisitions overall and about past acquisitions in specific countries (host country) as it encourages them to make more acquisitions. In contrast to one of our hypotheses, past acquisition experience in Northern Europe has no influence on the likelihood of subsequent international acquisitions in other countries. When we excluded the three countries (Denmark, Finland and Norway) from our sample, we found that the home country experience is not significantly related to international acquisitions anymore. We can conclude that there are two types of acquisition strategies within Swedish companies. On the one side, there are Swedish companies that gain experience in Sweden and then acquire companies in Northern Europe. On the other side there are companies that focus on international acquisitions in other foreign countries than these three for which home country (Sweden) experience is not determinant. By extending the model we saw that each new international acquisition does increase the likelihood of subsequent acquisitions but that the partial effect for each new acquisition diminishes as the number of M&As increases. The learning curve of international acquisition experience seems not to be a straight line but grows less than proportionally with the number of international acquisitions (see Graph 1, p. 61).

We then examined the industry momentum and found that acquisition activity in an industry does influence the acquisitions made by the firms in that industry. This suggests that Swedish firms that operate in an industry that is active in buying companies will be influenced by their peers towards doing acquisitions as well. Through the use of the average number of acquisitions per company, we showed that it is not just the absolute number of companies in an industry that influences the number of acquisitions in that industry but there is an industry momentum effect. Overall, the existence of industry momentum could suggest some learning patterns spreading throughout the industries in Sweden.

Further on, we examined the effect of joint ventures on the likelihood of subsequent acquisitions and found no significant relationship between the existence of joint ventures and the acquisition activity of firms. This suggests that there are neither learning effects nor any overuse of joint ventures within Swedish firms. This result is in line with previous findings made by Nadolska and Barkema (2007) who found no relationship between the existence of joint ventures and the likelihood of subsequent acquisitions. However, when doing a joint testing in which we included both past acquisition experience and experience with joint ventures, the dummy variable implying the existence of joint ventures turned out to be significant. This suggests that joint ventures on their own might not provide the firm with enough experience to encourage it to engage into subsequent acquisitions. This could be explained by the fact that joint ventures are quite different from acquisitions as they do not imply taking full ownership of another firm alone. Nevertheless, when combining joint

ventures and acquisitions, joint ventures have a significant influence as firms might then be able to deduct which elements in the acquisition process are valid for joint ventures only and which elements are valid for acquisitions as well (Nadolska & Barkema, 2007). Thanks to this, the firm can then apply its knowledge to subsequent acquisitions, which then increases the likelihood of the firm expanding through acquisitions. In conclusion when combining joint ventures with past acquisition experience, joint ventures are a determinant of the likelihood of subsequent international acquisitions.

Next, we saw that the performance of past acquisitions had no significant effect on the likelihood of subsequent acquisitions, which contradicts the findings of Haleblian et al. (2006). This can be explained by the fact that both good and bad performance increases the likelihood of subsequent acquisitions. The reason is that firms view each acquisition as an opportunity to augment its capabilities in acquiring other companies. Therefore, they are not discouraged by failures as they see the cause of failures being that not enough efforts were made and not that the action is wrong (Amburgey & Miner, 1992).

It might thus be that both good and bad past performance precede acquisitions, thereby making the effect of past shareholder return on the likelihood of subsequent international acquisitions on average insignificant. Successful past acquisitions (measured by positive abnormal shareholder returns) could motivate a company to continue doing acquisitions, which would then increase the likelihood of subsequent acquisitions. While it is easy to concede that past successful acquisitions should encourage subsequent ones however, there are several reasons explaining why managers continue doing M&As in spite of the poor performance of past acquisitions. It might be the hubris of the manager that leads him to overvalue the target company (Cartwright & Schoenberg, 2006). Hubris refers to the pride of a manager that leads him to acquire firms in order to satisfy his own self interest (Gaughan, 2007). In case of hubris, the manager should continue making acquisitions in spite of poor shareholder returns on past acquisitions as he is driven by his old self interest. Moreover managers might not know about the poor results of acquisitions shown by academic research (Cartwright & Schoenberg, 2006). Managers might also continue doing acquisitions regardless of the low returns of the previous ones because they refuse to recognize that their expansion strategy is not the right one. Since both good and bad past performance can encourage future acquisitions, the two effects can cancel each other out thereby leading to the our insignificant results.

Afterwards we turned to cancelled acquisitions and saw that these had no significant effect on the likelihood of subsequent international acquisitions. We presume that this is due to the fact that there were only very few acquisitions that were cancelled and reported, only 6 out of 416 between 2004 and 2006. Reported cancelled acquisitions do thus represent the exception rather than the rule. To study the effect of cancellation of acquisitions one would need to get inside data from companies on how often they actually try to buy other companies and how often this is successful. The reason is that acquisitions that are cancelled at an earlier stage of

the process are not publicly reported. Our study could, due to the lack of enough data, not find an influence of cancelled acquisitions on the acquisition behavior of firms.

Finally, we saw that no CEO change combined with past acquisition experience increases the likelihood that a firm would engage into subsequent acquisitions. This shows that Swedish CEOs as well as Swedish firms learn when doing acquisitions and are then encouraged by this knowledge to acquire more companies. The combination of no change in CEO and past acquisition experience shows that when the same person is CEO during several years, he acquires valuable information about the acquisition process for one precise company which makes him more likely to do subsequent acquisitions.

5.2 Discussion of the performance model

As seen in the results for the performance regressions in section 4.2.7, none of our independent variables were significant. Table 22 shows the expected and actual signs of the independent variables in the performance regressions. In this section, we will discuss possible reasons why we did not receive significant results. Afterwards we consider other possible performance measures.

Independent Variable	Expected sign for performance of acquisitions	Actual sign for performance of acquisitions	Significant (at 10%)?
Acquisition experience in			
Sweden (home country)	+	+	no
Northern Europe	+	+	no
Rest of the world	+	+	no
International	+	+	no
Host country	+	+	no
Industry momentum	+	+	no[28]
Number of joint ventures/existence of joint ventures	+	+	no
Cumulative abnormal returns	+	–	no
Cancelled acquisitions	–	+	no
CEO change AND past acquisition experience	+	+	no

Table 22 Comparison of the expected signs and the actual signs of the independent variables in the performance regressions

According to our results, past acquisition experience has no significant effect on the performance of subsequent acquisitions. This is a somewhat surprising result as we expected past acquisition experience to have a positive effect on the performance of subsequent

[28] The variable is significant in model 1.4b but the model statistics with an insignificant F-statistic imply that the model is not valid. The significance of the industry momentum did therefore just occur by chance.

acquisitions. However, these findings are in line with the results of a meta-analysis by King et al. (2004) that showed that there are no consistent findings linking experience with past acquisition to post acquisition performance.

When formulating our hypotheses regarding the industry momentum, we assumed that the higher the number of acquisitions in an industry in the past, the higher the performance of subsequent acquisitions would be. However, this was not supported by our regressions as the variable turned out not to be significant. This could be due to two opposing effects cancelling each other out and thus making the variable insignificant. On one hand we might have industrial learning effects with acquisitions in an industry increasing the performance of acquisitions made by other companies in the industry thanks to the spreading of the learning throughout the industry. On the other hand, we might have managers that are under the pressure of growing the company and who might therefore be induced by the industry growing through high M&A activity to acquire unprofitable targets and pay too high prices, thereby reducing the performance of subsequent acquisitions (Gaughan, 2007).

Joint ventures turned out not to be significant for the subsequent acquisition performance. Joint ventures are different from acquisitions and they might therefore not provide adequate training for performing successful subsequent acquisitions.

We argued that successful past acquisitions should lead to well performing subsequent acquisitions due to good acquisition methods. However, if a company has made a successful acquisition in the past it could be encouraged to do more of them believing that it has good M&A procedures even though it was due to luck. Such a case would lead to less successful subsequent acquisitions. These two opposing arguments can explain why the cumulative abnormal returns variable is insignificant.

Our regression showed that cancelled acquisitions are not significant in explaining the performance of subsequent acquisitions. On one side we can have firms whose acquisitions have been cancelled due to problems in their acquisition process, which could later translate into a lower performance of subsequent acquisitions. On the other side, we can have firms that have transactions that are cancelled due to external reasons such as regulatory reasons thus not affecting the performance of subsequent acquisitions. If we consider these two options as being true, they should cancel each other out and thus yield a non significant result for the effect of cancelled acquisitions variable.

Further on, we saw that our CEO variable did not have a significant effect on the performance of subsequent acquisitions either. The reason can be that there are employees other than the CEO that play a role when a company does an acquisition. Therefore, the CEO is not the only person whose actions will determine the performance of subsequent acquisitions, thereof the lack of significance of our variable. However, the lack of significance of the variable could also be due to two opposed effects cancelling each other out. As we argued when formulating

our hypothesis, past acquisition experience combined with no CEO change should lead to a higher performance of subsequent acquisitions as both the firm and the CEO should have gained knowledge about the implications of acquisitions for the firm. Nonetheless, it might also be that as the CEO gains experience, he becomes more self confident and might therefore acquire companies based on his "gut feeling" and not based on thoroughly studied facts, thus leading to a lower performance of subsequent deals (Malmendier & Tate, 2008).

We included softer variables such as cultural distance into our regressions as recommended by Stahl & Voigt (2003), since financial and strategic variables were not significant in past studies (King et al., 2004). Unfortunately these control variables did not turn out to be significant either.

As seen previously, none of the results in the performance regressions are significant. One could therefore question whether we used the right performance measures or the right models. Others study in the field have used other variables without encountering consistent significant results (see studies discussed in King et al., 2004).

Nadolska and Barkema (2007), as seen in section 2.1, measured the performance by looking at the survival of international acquisitions, which is their dependent variable. They thus used a dummy variable worth one if an acquisition was divested later on and zero otherwise as a dependent variable. Their regression did yield significant results; however, we were not able to use their performance measure since we had no access to a database with comparable information for Sweden. Indeed, Nadolska and Barkema (2007) studied acquisitions made in the years 1966 to 1998 and published their study in 2007. This gave them a large time horizon allowing them to follow the deals over several years. Apparently the authors used their own database on Dutch acquisitions since they did not provide a source in the article. Our sample on the other hand does only include the years 2004 to 2007 and given that we are now in year 2010, we do not have a large time horizon during which several deals might have been divested. Barkema & Schijven (2008b) use the return on assets (ROA) as their performance measure and dependent variable. They argued that it is a more appropriate measure than cumulative abnormal returns as it allows them to see when synergies were unlocked over time. We do not see ROA as being a suitable performance measure in our study as it captures the effect of elements inside the firm that are unrelated to the acquisition. Moreover, we are interested in the reaction of the market to the announcement of the acquisition and not in the distribution of the synergies over time. Nonetheless, their study found, besides other results, that there is a significant positive relationship between ROA and acquisition experience for Dutch companies

Of all measures of performance used in past studies that we have come across, cumulative abnormal returns thus seemed to be the most suitable performance measure for our study and that in spite of past inconclusive results in studies using it. Overall, a meta-analysis by King et al. (2004), concluded that "post acquisition performance is moderated by variables

unspecified in existing research". Since those studies did not find consistent results showing the effect of some of our variables on the performance, this can explain the poor significance of our results.

We could further question the validity of the M&As database we used (Reuters 3000 Xtra). Data on acquisitions in other studies came from sources such as Securities Data Corporation M&As database (Haleblian & Finkelstein, 1999, Finkelstein & Haleblian, 2002), which is used at Havard Business School or own databases (Barkema & Schijven, 2008b). Those databases might be more reliable on the exact announcement dates which are of major importance to our event study approach.

We were also thinking about extending the sample size to see if that would yield more significant results for the performance regressions. Unfortunately the availability of data did not make this possible. 2007 was the year with the highest M&A activity which was available to us. Also, it was not possible to go further back in time as there was hardly any data available before 2000 and only a few international acquisitions by Swedish companies before 2004.

A further important explanation of our insignificant results is that by using cumulative abnormal returns we simultaneously test the validity of the CAPM model (we use the CAPM model in order to calculate the CARs). But research has shown that the CAPM is not a valid model (Fama & French, 1993). Even though we could have used more advanced models such as the three factor model developed by Fama and French (1993), we would still be testing simultaneously if those models work for the Swedish market.

6 Conclusion

A summary of the findings is presented followed by the contributions of this thesis. The limitations of the study are given afterwards. Recommendations for further research conclude our work.

6.1 Summary of our findings

In this thesis, we have seen that the significant determinants of the likelihood of subsequent cross-border acquisitions by Swedish companies are past acquisition experience, industry momentum, joint ventures and CEO change.

The Figure 2 below shows the relationships we found through our analysis in this thesis. There was no significant effect of any of the variables on the performance of subsequent international acquisitions. In contrast a number of our hypotheses turned out to be valid for the likelihood of subsequent international acquisitions. Host country, international and domestic acquisition experience are drivers of future M&As. We have found that domestic acquisition experience in Sweden seem to be connected to companies acquiring in Northern Europe (Denmark, Finland and Norway), whereas international experience and host country experience are drivers for M&A activity in other foreign countries (excluding Northern Europe).

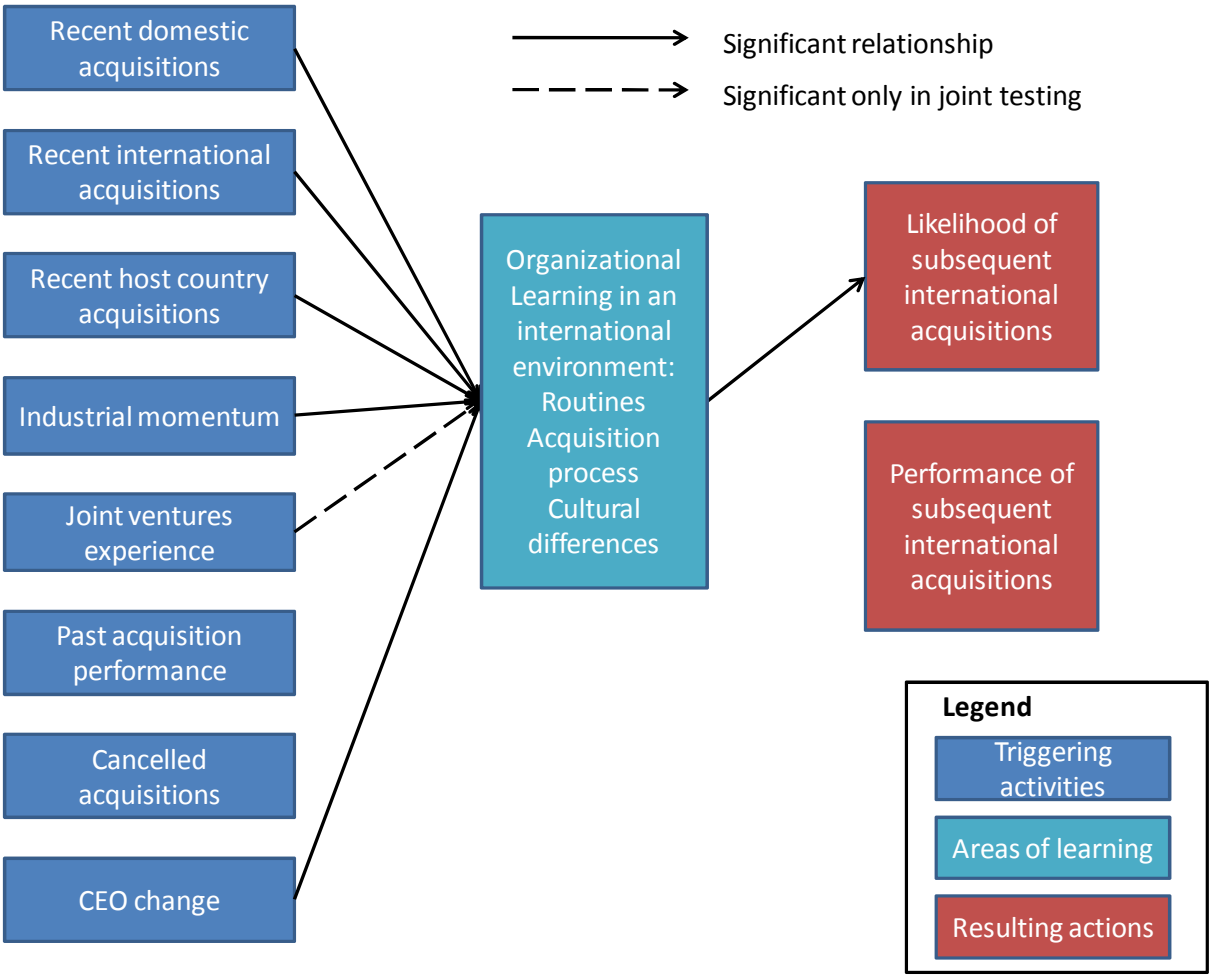


Figure 2 Significant links between triggering activities, areas of learning and the likelihood and performance of subsequent international acquisitions

Our results show that industry momentum has a positive impact on the likelihood of subsequent international acquisitions from which we can conduct that there exist some industrial learning about the M&A process. Additionally, the existence of joint ventures in a company is a less distinct driver than acquisition experience because it only has an influence when testing together with past acquisition experience. We further revealed that no change in CEO combined with past acquisition experience of the company lead to an increased probability of future acquisitions. We can thus conclude that the CEO, as an important player in the acquisition process, learns with the acquisitions made by his company and uses this knowledge in the future. We could not find evidence that past cancelled acquisitions or poor performance of past acquisitions discourage a company from making subsequent acquisitions.

We would also like to point out again the results for some of our control variables. A positive effect on the likelihood of subsequent acquisitions was found for firm size and country's development. The latter is especially interesting seeing that this variable has not been tested before to our knowledge. Negative effects on the likelihood were revealed for acquirer slack resources, cultural distance and change in GDP.

Unfortunately, our study of the performance of subsequent international acquisitions showed no significant results.

6.2 Contributions of our thesis

Our theoretical contributions with this thesis include extending the research on the influence of industry momentum and of the CEO as well as on the implication of joint venture experience on acquisitions. We further extend the list of control variables by employing a measure for a country's overall development.

We based our industry momentum measure on Haleblian et al. (2006)'s control variable, industry acquisition density, but included it as an independent variable. We also extended the measure with Amburgey and Miner's idea of using a peer measure which excludes acquisitions of the focal company (Amburgey & Miner, 1992).

The change in CEO has been, to our knowledge, used only as a control variable in the likelihood field (Barkema & Schijven, 2008b, Nadolska & Barkema, 2007) or as an independent variable in performance regressions (Jaffe et al., 2009). We extended the concept of the variable by using the interaction of no CEO change with past acquisition experience and found this to be a significant determinant of the likelihood of future cross-border acquisitions.

The use of a dummy variable for joint venture experience of a company led to significant results when tested in combination with past acquisition experience. This contrasts Nadolska & Barkema (2007)'s results. They only used the absolute number of past joint ventures in their study without encountering any significant relationship.

We also added an overall measure of country's development, the HDI, to our regressions and thereby extended Vermeulen & Barkema (2001)'s idea of only using an economic indicator (level of economic development of countries). We think that a measure of the development of a country needs to incorporate also educational and social measures (as the HDI does) to draw adequate conclusions for acquisitions.

Our findings about acquisition experience effect on the likelihood of subsequent acquisitions for Swedish companies are in line with results for other countries such as the United States (Collins et al., 2009, Haleblian et al., 2006) or the Netherlands (Nadolska & Barkema, 2007). To our knowledge no study with a similar approach and focus on the likelihood and performance of subsequent international acquisitions has been conducted before for Swedish companies.

As regards the more practical implications of our study, past acquisition experience and joint ventures have no significant effect on the performance of subsequent acquisitions. Therefore

practitioners should not rely on their past experience and expect that knowledge to translate into higher performance of subsequent acquisitions.

6.3 Limitations

We introduced some new independent and control variables (e.g. industry momentum, CEO change combined with past acquisition experience, country's development measured by HDI) that gave us significant results in the likelihood regressions. Nevertheless, considering that these variables have not been studied before in this context we can not be sure about the stability of their effects on the likelihood of subsequent international acquisitions. In opposition to past acquisition experience that has been found to have a significant effect in previous studies as well.

Four different measures of industry momentum were included which all had a significant effect on the likelihood of subsequent international acquisitions. However a distinct theoretical interpretation of each variable is not yet available.

One of our regressions has the performance of an acquisition as its dependent variable and both our regressions have the performance of past acquisitions as their independent variables. As stated previously we measure the performance by cumulative abnormal returns that were calculated using the CAPM. However, the CAPM is a widely criticized model that does not hold according to empirical evidence (Brealey, Myers, & Allen, 2006). The fact that the CAPM is a model with deficiencies limits the precision of our performance measures which in turn affects the precision of our regression results.

If a company has made a greenfield in a country it has acquired knowledge about the culture in that country, which could influence the M&A activity there. However, this effect is not taken into account in our study as we do not consider greenfields. We could thus miss this influence of host country experience through greenfields. We did not study this variable as it would have required extensive research to collect primary data since we would have had to compile a list of all subsidiaries of each of our 236 companies and to investigate each subsidiary to see if it was acquired or created as a greenfield.

6.4 Further research suggestions

Our regressions yielded no consistent significant relationships between any of our variables and the performance of subsequent international acquisitions. For further research in the field of M&A performance other performance measures and variables need to be found that better describe acquisition performance. Scholars could use models other than the CAPM to

calculate abnormal returns such as the Fama-French three-factor model or the APT (arbitrage pricing theory) model.

Another suggestion is to further explore the effect of more intangible variables such as employee resistance. For these factors substantial primary data generation is required which could explain why few studies have used them. Other measures of the performance could be based on more qualitative data collected through surveys in order to better capture the performance of acquisitions. A similar approach could be the case survey method used by Larsson and Finkelstein (1999).

Through this thesis, we hope to have shed some light on the determinants of the likelihood of subsequent international acquisitions by Swedish companies and would like to make some suggestions for future research for this likelihood area as well. One could in addition to joint venture experience also include a company's experience with strategic alliances. In contrast to joint ventures, a strategic alliance is a less strictly defined concept. Alliances are not necessarily mentioned in annual reports which could make it hard to generate data for this variable.

Instead of studying the effect of joint venture experience on the likelihood of subsequent international acquisition, one could explore the inverse relationship by looking at the effect of past acquisition experience on the likelihood to set up joint ventures.

We used three distinct geographical zones (Sweden, Northern Europe and the rest of the World) to examine the effect of acquisition experience gained in these regions. One could further develop this approach by using a variable for geographical distance between the home country and host country.

Overall when looking at cross-border M&As, one could include more control variables. For example use control variables such as an index for bribery, which could dissuade acquisitions in a country, or a trust index. Furthermore, one could include an indication of the overall health of the economy in order to see if it has any influence on the global M&A activity. We further suggest to test our new variables (industry momentum, CEO change combined with past acquisition experience, country's development measured by HDI) for other countries and samples in order to check their stability.

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Databases

Hofstede's Cultural Dimensions
(http://www.geert-hofstede.com/hofstede_dimensions.php)

OANDA Currency Converter
(www.oanda.com)

Political Constraint Index from Prof. Witold Henisz
(http://www-management.wharton.upenn.edu/henisz/)

Reuters 3000 Xtra

Thomson Reuters Datastream

United Nations Development Programme (UNDP) – Human Development Reports (HDR)
(http://hdr.undp.org/en/statistics/data/)

World Bank's World Development Indicators database
(http://go.worldbank.org/1SF48T40L0)

Other

The R Project for Statistical Computing (http://www.r-project.org/)

Appendix

Argentina	Denmark	Ireland	Pakistan	Surinam
Australia	Ecuador	Israel	Panama	Switzerland
Austria	El Salvador	Italy	Peru	Thailand
Bangladesh	Estonia	Jamaica	Philippines	Trinidad
Belgium	Finland	Japan	Poland	Turkey
Brazil	France	Luxembourg	Portugal	United Kingdom
Bulgaria	Germany	Malaysia	Romania	United States
Canada	Greece	Malta	Russia	Uruguay
Chile	Guatemala	Mexico	Singapore	Venezuela
China	Hungary	Morocco	Slovakia	Vietnam
Colombia	India	Netherlands	South Africa	
Costa Rica	Indonesia	New Zealand	South Korea	
Czech Republic	Iran	Norway	Spain	

Table 23 List of Countries

Aerospace & Defense	Household Goods & Home Construction
Automobiles & Parts	Industrial Engineering
Banks	Industrial Metals & Mining
Beverages	Industrial Transportation
Chemicals	Leisure Goods
Construction & Materials	Media
Electricity	Mining
Electronic & Electrical Equipment	Mobile Telecommunications
Equity Investment Instruments	Oil & Gas Producers
Financial Services	Oil Equipment, Services & Distribution
Fixed Line Telecommunications	Personal Goods
Food & Drug Retailers	Pharmaceuticals & Biotechnology
Food Producers	Real Estate Investment & Services
Forestry & Paper	Software & Computer Services
Gas, Water & Multiutilities	Support Services
General Financial	Technology Hardware & Equipment
General Industrials	Tobacco
General Retailers	Travel & Leisure
Health Care Equipment & Services	

Table 24 List of Industry Categories (ICB Sector)

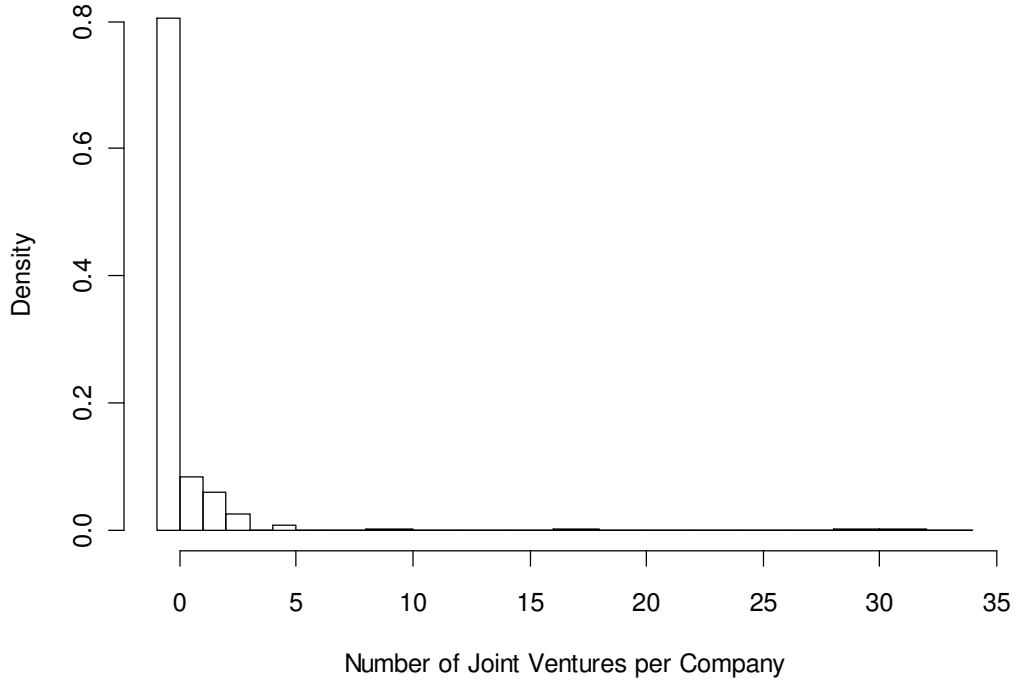

Diagram 2 Density of the number of joint ventures per company

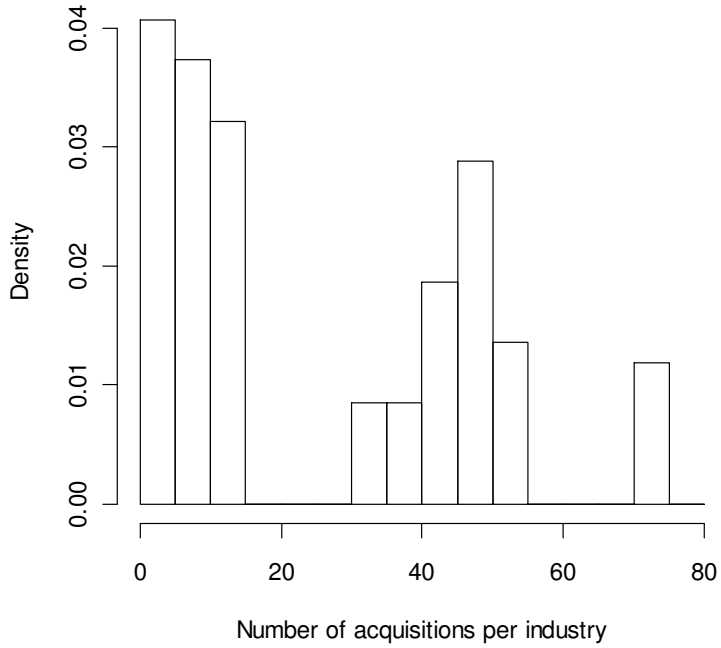

Diagram 3 Number of acquisitions per industry

Performance of acquisitions - Regression results[a]

	Hypothesis	Model 1.7b	Model 1.8b	Model 1.9b	Model 1.10b
Constant		-0.0001 (0.89)	-0.0001 (0.92)	-0.0006 (0.53)	-0.0006 (0.51)
Cumulative abnormal returns $_{2006}$	8a	-0.0126 (0.89)			
Cancelled acquisitions $_{2004-2006}$	9a		0.0010 (0.68)		
Acquisition experience $_{2004-2006}$					
Sweden (home country)				0.0001 (0.28)	0.0001 (0.27)
Northern Europe					
Rest of the world					
International				0.0001 (0.53)	0.0001 (0.50)
Host country				0.0002 (0.60)	0.0002 (0.61)
CEO change $_{2004-2006}$ (only control dummy)				-0.0002 (0.88)	0.0004 (0.85)
CEO change $_{2004-2006}$ (interaction term with past acquisition)	10a				-0.0007 (0.78)
Model Statistics					
F-statistic		0.0 (0.89)	0.2 (0.68)	0.8 (0.55)	0.6 (0.69)
Multiple R-squared		0.00	0.00	0.02	0.02
Adjusted R-squared		-0.01	-0.01	-0.01	-0.02

[a] n = 130 (model 1.7b n = 108). Regressions coefficents with p-statistics for the t-test. ***p < 0.01, **p < 0.05, *p < 0.10.

Table 25 Regression results for dependent variables and performance of acquisitions (symmetric 5-day window)