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# Post-Merger Performance in Nordic SME M&A:

## The Role of Cross-Border Transactions and Cash Financing


Bachelor thesis

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# Abstract

This thesis investigates the impact of financing structure and geographic scope on post-merger performance among small and medium-sized enterprises in the Nordic region. Despite the frequency of SME cross-border mergers and acquisitions, existing literature has largely focused on large, publicly traded firms, leaving a significant research gap concerning SMEs. Using a dataset of 176 Nordic SME acquisitions between 2015 and 2018, this study evaluates whether cash-financed M&As outperform those financed through equity or mixed methods, and whether cross-border transactions yield worse outcomes compared to domestic deals. Performance is measured using changes in Return on Assets over a five-year post-merger period, analyzed through Ordinary Least Squares regression models with fixed effects.

The results indicate that neither payment method or cross-border status significantly predicts post-merger ROA, suggesting that traditional M&A theories, such as the Pecking Order and Agency Theories, may operate differently in SME contexts. However, firm-specific factors, particularly pre-merger profitability and industry alignment, exhibit stronger influence on outcomes. Notably, cross-industry mergers were associated with improved performance, potentially reflecting strategic, opportunity-driven motives among SMEs. The study contributes empirical evidence to a relatively underexplored domain, offering insights relevant to academics, policymakers and practitioners engaged in SME internationalization and financing strategy.



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# 1 Introduction

Previous merger and acquisition (M&A) research mainly focuses on large multinational corporations and may not be fully applicable for research on small and medium-sized enterprises (SMEs), where the theoretical framework is limited. M&A for SMEs differs from their larger counterparts in several ways (Weitzel and McCarthy, 2011), for instance within the financing options connected to the free cash flow problem (Jensen, 1986) and the pecking order theory (Myers and Majluf, 1984). Another difference between them is that SMEs are more geographically sensitive (OECD, 2009) and lack formalized M&A processes (Stahl and Voigt, 2008). This thesis therefore aims to investigate whether post-merger performance among Nordic SMEs is influenced by financing options and by the distinction between cross-border and domestic M&A.

To establish a clear scope for this discussion, it is important to define what constitutes an SME. The European Commission defines SMEs as enterprises with fewer than 250 employees and either an annual turnover not exceeding 50 million euros or a balance sheet total not exceeding 43 million euros (European Commission, 2003). This definition will be used throughout this thesis.

By consolidating, companies can achieve economies of scale, improve productivity and streamline costs, ultimately leading to higher profitability and competitive advantages classifying it as an efficient M&A (Tremblay, V. J., & Tremblay, C. H. 2012). Additionally, efficiency-driven mergers enable firms to leverage complementary capabilities, enhance innovation and strengthen their market position (Banerjee and Eckard, 1998) and (Klein, 2001).

However, while efficiency gains are a primary motive, the actual success of M&A transactions depends on multiple factors, including execution, market conditions and managerial decision-making. Many deals fail due to challenges such as cultural clashes, integration difficulties, overvaluation and misaligned strategic objectives. For SMEs, these risks can be particularly pronounced due to limited financial and managerial resources (Zaheer, 1995).

While large firms often exhibit a preference for debt over equity to mitigate agency problems and information asymmetry (Jensen, 1980), SMEs face distinct financing constraints that may alter these dynamics. Due to limited access to capital markets, SMEs often rely on internal funds or private debt, making their choice of payment method more constrained and potentially more informative about deal quality (Weitzel and McCarthy, 2011). This raises a key question: Does the method of financing, specifically the use of cash, predict better post-merger performance in SMEs, as it often does in large firms?

Cross-border Mergers and acquisitions occur in cyclical waves, with a starting point in the forth M&A wave from 1981-1989. Harford (2005) means that Cross-border M&A comes in clusters due to regulatory and technical shocks and in 2024 alone, there were 8275 cross-border M&A transactions worldwide (Institute for mergers & alliances). Despite this high level of activity, studies suggest that crossborder merging does not increase the acquiring firm's return on assets (ROA) (Ding, Zhang, Liu 2021), meaning that the expected synergy effects do not perform as expected. This raises the critical question: Does this finding hold for SMEs as well?

## 1.1 Problem Description

M&A is a heavily researched field, yet the focus remains overwhelmingly on large, publicly traded firms. That is the case even though 90+% of all Nordic companies are SMEs (Nordic Council of Ministers, 2021) and worldwide 90% (World Bank, 2019).

In studies on large companies, success is commonly measured through stock price movements around the deal announcement, a method not applicable to most SMEs. A primary reason for this lack of research is the limited availability of data on SMEs. With few being publicly listed, traditional performance indicators such as stock returns are generally not available, making it difficult to evaluate whether M&A activity benefits shareholders (Beckmann and Hutchinson, 2020).

Although agency problems in M&A are widely discussed in literature, research on its effect on SMEs in M&A is limited and within the Nordic context, appears to be close to, or non-existent. Given the high proportion of SMEs in Nordic economies, this represents a relevant but underexplored area of study.

In studies of Cross-border M&A, agency issues often complicate the analysis (Weitzel and McCarthy, 2011). By focusing on SMEs, where the roles of owner and manager often overlap, this study reduces the presence of such conflicts and provides a clearer view of how cross-border dynamics influence M&A outcomes, minimizing noise introduced by complex governance structures. It also allows for a cleaner assessment of other factors, such as whether the method of financing affects post-merger performance.

Filling this gap is important not only from an academic standpoint but also for policy-makers and practitioners. SMEs play a vital role in many economies and are increasingly active in cross-border transactions. A deeper understanding of their M&A activity can support more informed decision-making and targeted policy development.

## 1.2 Purpose

The purpose of this thesis is to examine whether the choice of financing method in SME mergers and acquisitions influences post-merger return on assets, and to assess the impact of cross-border M&A on post-merger ROA for SMEs.

By investigating the relationship between financing choices and post-merger outcomes, the analysis aims to uncover whether the method of payment serves as a significant factor in determining the success of M&A transactions. Understanding this relationship is particularly relevant for SMEs, which often face financing constraints and must carefully consider how to structure the deal. It also aims to uncover whether engaging in cross-border M&A activities has a measurable effect on post-merger return on assets compared to domestic transactions.

This research takes inspiration from the work of Weitzel and McCarthy (2011) in "Theory and Evidence on Mergers and Acquisitions by Small and Medium Enterprises", which highlights how SMEs behave differently from larger firms in M&A contexts. By focusing on SMEs specifically, this thesis builds on and narrows the scope of existing literature, emphasizing firm size as a critical dimension in understanding cross-border post-merger and financing selection outcomes.

The scope of the study is limited to SMEs located in Norway, Finland, Denmark and Sweden that have undergone M&A transactions between 2015 and 2018, which is the latest point possible to create the study.

Regardless of whether the findings confirm the proposed hypotheses, this thesis aims to contribute meaningfully to the limited body of knowledge on cross-border M&A activity and financing choices among SMEs, offering empirical evidence on how geographic scope in deals may influence financial outcomes.

# 2 Theoretical Framework

To understand the factors that drive successful M&A outcomes for SMEs, especially in financing and cross-border contexts, it is necessary to consider a wide range of theoretical and empirical studies, many of which highlight the structural and strategic distinctions between SMEs and their larger counterparts.

## 2.1 Agency Theory and the free cash flow problem

The Agency Theory, particularly as written by Jensen, highlights conflicts between managers and shareholders which can be applied on M&A activities. Jensen (1986) introduced the concept of the free cash flow problem, arguing that managers with excess cash may pursue acquisitions that do not maximize shareholder value. Instead, they may engage in empire-building strategies, motivated by personal prestige, control, or compensation incentives. This misalignment of interests often leads to inefficient acquisitions or pursue diversification strategies that dilute shareholder value. The presence of weak governance structures further exacerbates agency problems, allowing managers to prioritize their own objectives over the firm's financial health.

In the M&A landscape, agency conflicts manifest through managerial overconfidence, resistance to takeovers and entrenchment strategies designed to secure control rather than optimize firm performance. Shareholders may attempt to mitigate these issues through stronger governance mechanisms, incentive alignment, or activist interventions. Understanding these agency problems is crucial for evaluating the true value and strategic rationale behind mergers and acquisitions (Shleifer and Vishny, 1989).

Since data on the subject is limited, the evidence by Wu (2020), who finds that firm size is a factor for governance structures in family firms and combined with broader findings by Weitzel and McCarthy (2011) that SMEs typically exhibit closer alignment between owners and managers is central. Together, these studies support the view that agency issues are less pronounced in SMEs.

As mentioned above, in many cases, SME managers are also the principal owners, meaning their personal financial well-being is directly tied to the performance of the firm. This alignment of ownership and control significantly reduces the likelihood of self-serving behavior, such as overinvestment or value-destructive acquisitions, that is more commonly observed in large corporations with dispersed ownership. As a result, governance mechanisms in SMEs tend to be more informal but also more effective in limiting agency conflicts (Weitzel and McCarthy, 2011).

SMEs face a different challenge in M&A, information asymmetry. Since most SMEs are private (Nordic Statistics, 2023), M&A becomes riskier for SMEs due to their lack of transparency, making information harder to obtain. This increases due diligence costs, raises valuation difficulties and creates higher risks for post-merger integration. Consequently, financing choices for SMEs often follow a different logic than those for larger firms, making the Pecking Order Theory particularly interesting topic to discuss.

## 2.2 Pecking Order Theory

The Pecking Order Theory, introduced by Myers and Majluf (1984), explains how firms prioritize their financing decisions in the presence of asymmetric information. According to this theory, firms prefer to use internal financing, such as retained earnings, before seeking external funding. When external financing is necessary, debt is favored over equity because issuing new equity can signal negative information to investors, potentially leading to a decline in firm value. This preference arises because managers, who have better information about the firm's value than outside investors, seek to minimize the costs associated with information asymmetry. As a result, firms issue equity only as a last resort when internal funds and debt financing are insufficient or too risky.

Does the type of payment say anything about how successful the M&A is going to be? For large companies, the answer is yes. Jensen (1986) found that companies that finance M&A with retained earnings are less likely to be successful, with debt financing performing the best. Jensen argues that firms with excess free cash flow are more prone to inefficient investments, including value-destroying mergers, because managers may pur-

sue empire-building rather than shareholder value maximization. Debt, on the other hand, imposes discipline on managers because it requires regular interest and principal payments, reducing the likelihood of wasteful spending. Banks and lenders conduct due diligence before approving loans, which can help filter out weaker M&A deals.

### 2.2.1 Pecking order for SMEs

Weitzel and McCarthy (2011) argue that, in the context of SMEs, financing constraints can significantly alter the dynamics of the pecking order. Unlike larger firms, SMEs typically have limited access to substantial retained earnings, although such earnings, when available, often serve as the primary source of financing. As a result, SMEs rely more heavily on debt financing or contributions from majority owners and favour equity more than their larger counterparts.

Due to their relatively higher risk profiles, smaller firms often face greater difficulties in securing loan approvals. This creates an interesting contrast: while debt financing is generally associated with enhanced M&A success in large firms, it may pose additional challenges for SMEs due to credit constraints and increased lender scrutiny.

Furthermore, Weitzel and McCarthy (2011) note that SMEs usually possess simpler ownership structures, which can lead to lower transaction costs and reduced information asymmetry in the context of equity financing and therefore making it a more suiting option for SMEs.

These structural differences and financial constraints suggest that it is unclear if the relationship between payment method and M&A success translates to SMEs. Therefore, we hypothesize that the method of financing, specifically the use of cash, predicts better post-merger performance in SMEs, as it often does in large firms?

**H1:** *Cash-financed M&As outperform equity or mixed-financed M&As in terms of post-acquisition return on assets among Nordic SMEs.*

## 2.3 Motives behind M&A

Tremblay, V. J., & Tremblay, C. H. (2012) categorizes motives behind M&A into three groups, vertical integration, horizontal integration and diversifying merger and this thesis will do the same. Diversifying mergers, in which a firm acquires another business in a different industry or market, are often pursued as a strategic play to reduce risk, stabilize earnings and gain access to new growth opportunities. By spreading operations across different sectors, firms can protect themselves from industry-specific risks and improve overall resilience. This strategy can also provide synergies in areas such as distribution, technology, or customer base, especially when the acquiring firm identifies complementary strengths in the target company (Tremblay & Tremblay, 2012). While some critics point to the role of managerial overconfidence or personal ambition in driving diversification (Jensen, 1986), many mergers of this kind are rooted in rational strategic planning aimed at long-term value creation. In the context of SMEs, diversifying acquisitions may also reflect a desire to overcome local market saturation or to gain a foothold in more stable or profitable sectors, provided the acquiring firm has the managerial capacity and financial resources to integrate a business outside its core area (OECD, 2008).

Another motive is vertical integration, where a company merges with firms at different stages of the production process. This type of merger can improve supply chain efficiency, reduce costs and give the company better control over production. For instance, acquiring a supplier or distributor can streamline operations and increase profitability by reducing dependence on external partners. SMEs may be particularly inclined toward vertical integration due to their need for stable supply chains and cost control (Tremblay, V. J., & Tremblay, C. H. 2012).

Lastly horizontal mergers, involves the consolidation of companies in the same industry at the same stage of production. These mergers are aimed at expanding market share, achieving cost efficiencies and raising market power. By combining resources, firms can benefit from economies of scale, though such mergers can also face regulatory scrutiny for potential monopolistic effects. Large firms often pursue horizontal mergers to dominate market segments, whereas SMEs may engage in them to survive in competitive industries

(Tremblay, V. J., & Tremblay, C. H. 2012).

Each motive has different strategic objectives and impacts on post-merger performance. Vertical and horizontal mergers are often focused on operational gains, while diversifying mergers driven by empire building tend to be less value-creating. For SMEs, the success of these strategies depends not only on their financial constraints and market positioning but also on their ability to manage post-merger integration effectively (Tremblay, V. J., & Tremblay, C. H. 2012). This highlights the need to assess whether SMEs' structural advantages translate into better M&A outcomes.

In the figure (see figure 1) is Weitzel and McCarthy (2011)´s applicable merger motives and how suitable they are for SMEs. This figure shows how suitable different strategies are for SMEs and their benefits.

| Outcome | Benefits | How? | Theory | Link | SMEs? |
|---|---|---|---|---|---|
| Gains | Owners | Net gains through operative synergies | Efficiency | Synergy | High |
| | | Wealth transfers from customers | Market Power | | Medium |
| | | Net gains through managerial synergies | Corporate Control | | Medium |
| Losses | Owner Intended | Net losses though overpaying | Hubris | Bounded Rationality | Medium |
| | | Net losses due to valuation mistakes | Managerial Discretion | | Medium |
| | Manager | Net losses as managers make acquisitions to reinforce job positions | Entrenchment | Agency Costs | Low |
| | | Net losses as managers make acquisitions to increase firm size | Empire Building | | Low |

Figure 1: Weitzel & McCarthy (2011), Refining the set of Applicable Merger Motives

## 2.4 Credit risk

Mergers & Acquisition increases on average the risk of default (Furfine & Rosen, 2009), but they also conclude that some of that risk comes from agency issues, mentioning CEO´s with stock based compensation. While performance based compensation of course exists in SMEs, they are not as likely to be victims of empire building or hubris from managers as discussed previously.

Koerniadi, Krishnamurti, Tourani-Rad (2015) comes to the conclusion that cross-border M&A decreases the default risk, in contrast to Furfine & Rosen (2009). Since their studies are made on different fields, cross-border and domestic M&A, it leads to some uncertainties comparing them. But still, it seems as if cross-border M&A may perform better and domestic M&A worse in the sense of credit risk, even for SMEs, which makes credit risk an interesting and important part of the picture.

## 2.5 Cross-border

One of the primary motivations for engaging in cross-border M&A is the potential to reduce return volatility. Cross-border M&A can lower a firm's return volatility by exposing it to a different set of systematic risks present in the target country, thereby providing diversification benefits (Koerniadi, Krishnamurti, & Tourani-Rad, 2015). This risk-reducing aspect of cross-border expansion is often more relevant to corporate managers, particularly those motivated by job security, than to shareholders or investors who may be more tolerant of risk.

In SMEs, however, the owner is often also the manager, meaning job security is not externally threatened in the same way. As a result, the incentive to diversify earnings in order to protect one's managerial position is significantly reduced. This partly explains why SMEs engage less frequently in cross-border M&A (Lu & Beamish, 2001; European Commission, 2014).

Moreover, the smaller scale and limited resource base of SMEs may hinder their ability to effectively pursue or benefit from international diversification. Unlike larger corporations, SMEs often lack the financial and organizational slack necessary to manage the complexities and integration challenges that come with international expansion. Even if diversification benefits exist in theory, SMEs may not be well-positioned to realize them in practice (OECD, 2009).

Instead, when resource-constrained firms do engage in cross-border M&A, the motives are more likely to be opportunity-driven such as acquiring strategic assets like new technologies, market access, or distribution networks rather than driven by a desire to reduce risk (Hollen, van den Bosch & Volberda, 2013). These firms tend to approach internationalization more cautiously and with more specific goals in mind, reflecting a different risk-return logic than that of larger multinationals.

While diversification may not be a central motivation and instead securing important assets, cultural compatibility becomes a critical factor in the success of cross-border M&A, particularly for SMEs. Cultural differences between the acquiring and target firms are consistently identified as a major source of integration difficulties. Hofstede's (1980) cultural dimensions including individualism-collectivism, uncertainty avoidance, masculinity-femininity and power distance remain foundational in understanding these challenges. Studies have shown that greater cultural distance, particularly in dimensions like uncertainty avoidance and individualism, tends to increase post-merger friction and reduce the likelihood of M&A success (Stahl & Voigt, 2008).

For SMEs, this is especially important, as they often lack formalized processes for cross-cultural management or dedicated HR capabilities to navigate these complexities. Without prior international experience or internal integration systems, the cultural fit between acquirer and target can significantly influence the outcome of the merger (Stahl & Voigt, 2008).

In some cases, cultural factors may also play a role even in domestic M&A, particularly in countries with strong regional cultural differences, like Spain or Germany. However,

in the Nordic context, specifically Norway, Denmark and Sweden the within-country cultural variability is relatively low (Kaasa, Vadi, & Varblane, 2014). As a result, this thesis focuses only on cross-border differences in M&A, where the expectation is that cultural distance will have a more pronounced effect on post-merger outcomes for SMEs.

Data used in the thesis shows that of 176 M&A deals involving SMEs, all deals occurring inside the EU area. As clarification, Norway, which is not part of the EU, is part of the EES, which from our regulatory aspect, is the same as if they were part of the EU. So from now on EES members are treated as EU members in the thesis.

The pattern of SMEs not engaging in non EU M&A indicates a strong clustering of activity within the EU and supports the findings of Coeurdacier, De Santis and Aviat (2009), who report that the EU Single Market and the Economic and Monetary Union (EMU) boosted vertical M&A activity in the manufacturing sector by 200%.

Their results highlight how shared regulatory frameworks and economic integration can significantly lower transaction costs and reduce uncertainty, particularly for complex deals such as M&As. Given that SMEs often operate with limited legal and administrative capacity compared to larger firms, the harmonization of laws within the EU likely plays an even more critical role in facilitating their cross-border activity.

Although the dataset spans multiple sectors, the clustering of transactions within the EU and the lack of non-EU transactions suggests that institutional and regulatory proximity remains a dominant factor shaping SME M&A decisions and may obstruct the finding of a potential relationship.

The various challenges associated with cross-border M&A, such as integration difficulties, cultural misalignment and market unfamiliarity, can be broadly understood through the concept of the ”liability of foreignness” (Zaheer, 1995). This framework encapsulates the obvious disadvantages that firms face simply by operating outside their home country, including institutional, informational and relational barriers.

While cross-border M&A can offer strategic benefits such as access to new markets, SMEs often face greater challenges in managing the added complexity of cross-border transactions. Limited resources, unfamiliar regulatory environments and integration difficulties may reduce the likelihood of success compared to domestic transactions (Zaheer, 1995). Therefore, we hypothesize that cross-border M&A transactions result in lower post-acquisition performance among SMEs, in line with their larger counterparts.

**H2:** *Cross-border M&A transactions result in lower post-acquisition return on assets compared to domestic M&A transactions among SMEs in the Nordic region.*

## 2.6 Cross-Industry

Cross-industry M&A in public entities have been studied severely and different authors come with different conclusions. Kling, Ghobadian, Hitt, Weitzel and O'Regan (2014) comes to the conclusion that cross-industry M&A have a negative impact for equity holders and positive for bondholders, since the product-diversification lowers the return volatility, creating more stabilized cash flows for the firm. They also state that it is firm specific for which merging-strategies increases shareholder value, which points in the direction that diversifying mergers are a bad strategy for SMEs, as mentioned earlier.

Hollen, van den Bosch and Volberda (2013) highlight how firms, particularly those with limited internal resources, often pursue M&A to gain access to strategic capabilities they cannot develop in-house. These resource-constrained firms are more likely to engage in opportunity-driven M&A, especially across industries, when such deals offer access to valuable technologies, knowledge bases, or innovation platforms. Rather than diversifying for risk reduction, these firms use M&A as a means to enhance their competitive position by integrating complementary assets that accelerate innovation or enable entry into new markets.

# 3 Data

The empirical sample consists of completed M&A transactions conducted by Nordic SME acquirers between 2015 and 2018. Firm-level financial data and deal-specific characteristics were primarily retrieved from the LSEG database. SMEs are identified in accordance with the European Commission's definition, which is based on thresholds for employee count, turnover and total assets.

To be included in the sample, firms were required to have available ROA data from one year before the acquisition and at least three of the five years following it. For firms missing ROA data for one or two of the post-merger years, the average was calculated using the available observations. This exclusion of companies with no available ROA could lead to survivorship bias within the datasets.

The time frame of 2015 to 2018 was chosen to allow for a five-year post-merger performance window, with 2023 being the most recent year for which complete financial statements were accessible at the time of data collection. Prior years to 2015 are not included due to the limited availability of reliable and complete financial data for Nordic SMEs before that period. Earlier data would have introduced inconsistencies and reduced sample size due to missing and incomplete post-merger financial records, undermining the validity of the five-year performance analysis.

The focus on the Nordic region reflects both practical and analytical considerations. In several cases, the LSEG database lacked complete information on the number of employees, a core criterion in the European Commission's SME definition. To address this limitation, missing employment data were manually retrieved from regional business databases including Retriever and Allabolag, which provide firm-level records specific to the Nordic countries. Access to these complementary data sources allowed for more accurate SME classification and helped ensure the integrity of the sample. This availability of reliable, localized information is one of the reasons the Nordic region was selected for analysis.

Beyond data availability, as mentioned earlier the Nordic countries offer a coherent institutional context, characterized by similar regulatory environments, economic structures and governance systems. This enhances the comparability of firms across countries while still allowing for meaningful variation in deal characteristics and firm behavior. Additionally, within-country cultural heterogeneity is relatively low in the Nordic region, particularly in Norway, Finland and Sweden, where subnational cultural differences are limited (Kaasa, Vadi, & Varblane, 2014). This reduces the risk of unobserved cultural effects confounding the analysis of domestic M&A performance when compared to cross-border. To test the robustness of the results, acquisitions involving target firms located outside the Nordic region were excluded and the same regressions were run again.

## 3.1 Data Cleaning and Outlier Handling

The original dataset consisted of 248 completed M&A transactions. From this, two datasets were derived: one retaining the full set of 248 deals and another limited to 66 observations for which payment type information was available through LSEG. Both datasets underwent rigorous data cleaning to ensure consistency and validity. Numeric coercion was applied to all variables and observations with missing values in key predictors or the dependent variable were removed. Particular attention was given to outlier detection. One extreme case, a firm with a pre-merger ROA of -203% and highly negative leverage was manually inspected and confirmed to be excluded during the cleaning process. In addition, we manually removed the only non-EU target firm in the dataset, due to its uniqueness, to remove noise from the data. As a result, all cross-border deals included in the analysis are restricted to transactions in which both the acquirer and target firms operate within Europe.

## 3.2 Final Dataset

The final datasets, following all filtering and transformations, consist of 176 observations in the full dataset used for Model H2 (Hypothesis 2) and 40 observations in the smaller subset used for Model H1 (Hypothesis 1). Data preparation and analysis were conducted in Python using a Kaggle notebook environment. Two Excel files served as the basis

for the analysis: one containing the complete sample of acquirers with matched financial data and another smaller file including the payment transaction variable CashPayment.

| **Statistic** | **Total assets before** | **ROA Before** | **ROA After** | **Debt/equity ratio** |
|---|---|---|---|---|
| count | 248.000000 | 248.000000 | 209.000000 | 196.000000 |
| mean | 68.547557 | 0.034883 | 0.056617 | 0.893907 |
| 25% | 14.594500 | 0.000007 | -0.000704 | 0.043108 |
| 50% | 27.718318 | 0.025830 | 0.036391 | 0.115309 |
| 75% | 59.981016 | 0.087233 | 0.104145 | 0.445235 |

Table 1: *Summary Statistics of Financial Metrics*

# 4 Method

The method applies an Ordinary Least Squares (OLS) regression framework to evaluate the relationship between M&A deal characteristics and post-merger firm performance among Nordic SMEs. This quantitative method draws inspiration from previous work such as Weitzel and McCarthy (2011), who emphasize the importance of performance-based outcome measures in M&A studies. The regression model is constructed to estimate how cross-border activity, financing decisions and pre-merger conditions influence operational outcomes after the acquisition has taken place.

The dependent variable reflects post-merger operational performance and is based on firm-level Return on Assets. The analysis focuses on the delta, changes in return on assets ($\Delta$ROA), with an average over a five-year period following the transaction, enabling the model to capture long-term performance effects rather than short-term fluctuations.

This thesis adopts ROA as the performance metric because many SMEs are privately held and lack publicly traded valuations (Nordic Statistics, 2023), making market-based measures such as cumulative abnormal returns (CARs) unsuitable. Moreover, Axelsson and Lundin (2016) states that ROA is less sensitive to differences in financial leverage and capital intensity across firms, making it a consistent and broadly applicable indicator of performance in SME populations. As a result, accounting-based metrics such as Return on Assets are commonly used in SME research. Haleblian et al. (2009) and King et al. (2004) highlight the challenges of using accounting data, including integration costs and earnings management, but acknowledge that ROA remains one of the most accessible indicators of operational performance in the absence of market data.

The inclusion of both deal-level and firm-level explanatory variables, along with country and year fixed effects, enables the regression framework to isolate the marginal effects of key factors while controlling for institutional and macroeconomic variation.

## 4.1 Model Specifications

Two separate OLS regression models are estimated, one for each hypothesis. The H1 model is based on a smaller sample (40 observations) and includes only main effects, while the H2 model, which utilizes the full dataset (176 observations), includes interaction terms to explore conditional effects.

$$\begin{aligned}\Delta ROA_{it} = \beta_0 &+ \beta_1 CrossBorder_{it} + \beta_2 \log(\text{PreROA}_{it}) + \beta_3 DebtEquity_{it} + \beta_4 CrossIndustry_{it} \\ &+ \beta_5 CashPayment_{it} + \sum_c \gamma_c Country_{c,it} + \sum_t \delta_t Year_{t,it} + \varepsilon_{it}\end{aligned} \tag{1}$$

*Figure 2, H1 regression model*

$$\begin{aligned}\Delta ROA_{it} = \beta_0 &+ \beta_1 CrossBorder_{it} + \beta_2 \log(\text{PreROA}_{it}) + \beta_3 DebtEquity_{it} + \beta_4 CrossIndustry_{it} \\ &+ \beta_5 \left(CrossBorder_{it} \times \log(\text{PreROA}_{it})\right) + \beta_6 \left(DebtEquity_{it} \times \log(\text{PreROA}_{it})\right) \\ &+ \sum_c \gamma_c Country_{c,it} + \sum_t \delta_t Year_{t,it} + \varepsilon_{it}\end{aligned} \tag{2}$$

*Figure 3, H2 regression model*

In both models, the dependent variable is ΔROA, defined as the change in Return on Assets from one year before the acquisition to the average over the five years following the transaction. This outcome variable captures the long-term operational impact of the merger.

In both specifications, log(PreROA) is included as a control variable to account for differences in pre-acquisition profitability across firms. As written by Frank and Harell (2015) log transformation is applied to reduce right-skewness in the distribution and to ensure that the estimated coefficient reflects proportional changes in profitability, rather than assuming a constant marginal effect. This improves both the interpretability and statistical robustness of the model, especially when firms in the sample vary widely in their baseline performance. By using a logged specification, the model can better detect how performance outcomes scale with initial efficiency levels, which is particularly relevant in heterogeneous SME populations.

The H2 model extends the baseline specification by introducing two interaction terms, one between CrossBorder and log(PreROA) and another between DebtEquity and log(PreROA). These interaction variables allow the model to test whether the effect of pre-merger profitability on post-merger outcomes depends on whether the acquisition was cross-border and whether the firm was highly leveraged. In other words, they capture conditional effects, enabling a more nuanced analysis of how deal structure and firm characteristics interact in driving post-merger performance (Frank and Harell, 2015). These interactions are excluded from the H1 model due to two key constraints: the limited sample size (n = 40) and the presence of severe multicollinearity, which would undermine the reliability of coefficient estimates in a small-sample setting.

## 4.2 Skewness

In ordinary least squares regression models, like the H1 and H2 models, the skewness of the residuals serves as a key diagnostic for evaluating the assumption of normally distributed errors. Skewness quantifies the asymmetry of a distribution: a value of zero represents perfect symmetry, positive values indicate right-skewness (a long right tail), and negative values denote left-skewness. Although there is no strict cutoff, skewness values between -0.5 and 0.5 are generally viewed as approximately symmetric, values between $\pm 0.5$ and $\pm 1$ indicate moderate skewness, and values greater than $\pm 1$ are typically interpreted as substantial skewness. (Doane & Seward, 2011).

The assumption of normally distributed residuals is crucial because it underpins the validity of confidence intervals and hypothesis testing in linear regression. While the Central Limit Theorem (CLT) suggests that the sampling distribution of estimators will approach normality as sample size increases, this convergence may be insufficient in small or moderate-sized samples when residuals are heavily skewed. Therefore, assessing skewness is critical to ensure the robustness and interpretability of statistical inference. (Krishnamoorthy, 2016)

## 4.3 Dependent Variables

### DeltaROA (ΔROA)

ΔROA is the dependent variable in the regression and is constructed as the difference, delta, between the average ROA over the five years following the acquisition and the combined ROA of the acquirer and target recorded in the year immediately prior to the transaction. It is not equivalent to post-merger ROA or a cumulative total, but rather a measure of change that captures how profitability evolves relative to the firm's baseline performance. This formulation is designed to isolate the net performance impact of the merger itself by controlling for the acquiring firm's pre-acquisition efficiency level. It enables the analysis to assess whether the acquisition led to an improvement or deterioration in operational outcomes. The use of a five-year post-merger average helps smooth out short-term fluctuations, transition-related costs and temporary anomalies, resulting in a more stable and representative measure of long-term effects. This approach aligns with best practices in M&A research, particularly in the SME context where post-merger integration processes may take longer to influence financial outcomes.

## 4.4 Independent Variables

### CrossBorder

CrossBorder is a dummy variable equal to 1 if the acquirer and target were based in different countries and 0 otherwise. It is included to capture whether cross-border transactions systematically affect post-merger performance compared to domestic deals. A negative coefficient could indicate that the challenges of international integration outweigh the benefits, while a positive coefficient might suggest that international expansion improves long-term operational efficiency or profitability.

### CashPayment

CashPayment is a dummy variable equal to 1 if the transaction was entirely financed with cash. Mixed payment structures such as combinations of cash and stock or deals without any cash component are coded as 0. The use of cash as a payment method can provide insight into the financial position and confidence of the acquiring firm. Similarly, under

the pecking order theory, firms prefer using internal financing (i.e., cash) over external equity, as it signals strength and reduces information asymmetry. Thus, examining the transaction financing can help reveal whether financially stronger acquirers achieve different post-merger outcomes. This dummy includes a smaller dataset and is therefore only included in the first regression.

## 4.5 Control Variables

**log(PreROA)**

PreROA is included in the model as a control variable to account for firms baseline profitability prior to the merger. It is constructed as the combined Return on assets of both the acquiring and target firms in the year immediately preceding the transaction, capturing the operational efficiency of the merged entity before any integration has taken place. Including this variable allows the regression to isolate the effect of the merger itself by controlling for initial performance differences across firms. It also addresses the risk of regression-to-the-mean, a statistical phenomenon where firms with unusually high or low profitability prior to the deal may naturally revert toward average performance levels in the following years, independent of the merger's impact (Frank and Harell, 2015).

To improve the distributional properties of the variable and enhance model interpretability, PreROA is log-transformed in the regression specification. This transformation serves several important purposes. First, it reduces skewness and the influence of extreme values, which are common in financial ratio data, particularly in the SME context where profitability levels can vary widely.

Second, the logarithmic form allows for a proportional interpretation of the coefficient, meaning the model estimates how a percentage change in pre-merger profitability relates to post-merger outcomes, rather than assuming a constant linear effect. This is especially useful when differences in profitability are expected to have diminishing or compounding effects at different scales.

Finally, logging PreROA contributes to improved model stability and robustness, as it mitigates issues related to heteroscedasticity and ensures that high-leverage observations do not unduly distort the estimated relationships. In sum, the use of log(PreROA) strengthens the internal validity of the analysis and provides a more reliable foundation for assessing how pre-merger performance conditions influence post-merger success.

**DebtEquity**

The acquirer's debt-to-equity ratio reflects the firm's capital structure, to the extent to which operations are financed through debt rather than equity which is closely linked to default risk and financial vulnerability. Firms with higher debt-to-equity ratios are generally considered to have higher financial risk, as they face greater obligations to creditors and reduced flexibility during adverse conditions. Therefore, the debt-to-equity ratio is not only a practical substitute but also an economically meaningful proxy for credit risk in empirical finance research.

**CrossIndustry**

CrossIndustry is a dummy variable equal to 1 if the acquirer and target operated in different industries and 0 if they belonged to the same industry. Industry classification was retrieved from the LSEG database, which provides sector information on macro, mid and micro levels. We used the macro-level classification to define industry similarity in order to ensure that a value of 1 reflected a complete change of industry, rather than small differences in sub-sectors within the same broader field. This choice increases the conceptual clarity of the variable by isolating mergers that represent a real strategic shift across industries. The coefficient helps test whether expanding into a new industry affects the acquirer's ability to generate post-merger value

## 4.6 Interaction Terms

**Cross-border * log(PreRoa) (CB_PreROA)**

This interaction term captures whether the effect of pre-merger profitability (log(PreROA)) on post-merger performance differs between cross-border and domestic acquisitions. While log(PreROA) on its own estimates the marginal impact of

baseline profitability across all deals, this interaction term allows the coefficient to vary conditionally depending on the geographic scope of the transaction.

**DebtEquity * log(PreRoa) (DE_PreROA)**

This interaction term tests whether the effect of pre-merger profitability on post-merger performance depends on the acquiring firm's financial leverage, as proxied by the debt-to-equity ratio. The main effect of log(PreROA) assumes that the relationship between baseline efficiency and post-acquisition performance is consistent across all firms, regardless of their capital structure. However, this interaction term allows the model to assess whether that relationship changes based on the firm's financial risk or funding constraints at the time of acquisition. The interaction term is needed due to the fact that highly leveraged SME firms may be more constrained in their ability to execute post-merger integration, even if they are operationally strong.

Alternatively, profitability might offset risk by providing the internal resources needed for smoother absorption of the target firm. A significant interaction would suggest that the impact of pre-merger profitability on performance is moderated by leverage, for example the returns to high profitability may be diminished (or enhanced) when debt levels are high.

## 4.7 Fixed Effect Variables

**Country Fixed Effects**

Country fixed effects are included in the regression using one-hot encoded dummy variables for each acquirer country, based on their country of origin in the transaction. These dummies allow us to control for time-invariant differences across countries that might influence post-merger performance, such as institutional quality, tax policies, regulatory environments, or general business conditions. While each country dummy (e.g., Country_Sweden, Country_Finland) is a binary variable on its own, including the full set of country dummies in the model (with one omitted to avoid multicollinearity, Denmark) functionally acts as fixed effects.

This approach follows Samuels (2024) on one-hot encoded variables and isolates the impact of country-specific factors that are not explicitly included in the model but could otherwise bias the estimated coefficients. By accounting for national context, the model focuses more precisely on the effects of firm-level and deal-specific characteristics. Denmark was selected as the omitted reference category, meaning the interpretation of other country coefficients is relative to Denmark. Including these fixed effects strengthens the internal validity of the analysis by ensuring that cross-border and performance effects are not confounded by national differences.

**Year Fixed Effects**

Year fixed effects are included in the regression model to control for unobserved, time-specific factors that could influence post-merger performance across all firms in a given year. These factors may include macroeconomic trends, monetary policy shifts, market volatility, or regulatory changes that are not captured by firm- or deal-level variables. The fixed effects are implemented as one-hot encoded dummy variables representing the year in which the transaction occurred. To avoid the dummy variable trap and ensure the model remains identified, the year 2015 is omitted and serves as the reference category. The inclusion of year fixed effects enhances the model's ability to isolate the impact of the explanatory variables by accounting for broader temporal shocks that could otherwise bias coefficient estimates.

## 4.8 Correlation matrix on the dependent variables

Two correlation matrices were created to examine the relationships between all independent-, control-, interaction terms and fixed variables used in the two regressions. This step helps identify potential multicollinearity issues by highlighting variables that are highly correlated with each other. While not as precise as a Variance Inflation Factor analysis, the correlation matrix provides an initial overview of how strongly each variable moves in relation to the others.

It adds transparency to the variable selection process and ensures that no strong linear dependencies exist that could distort the regression results. By checking for unusually

high pairwise correlations, we reduce the risk of biased or unstable coefficient estimates in the model. The matrix serves as an important early diagnostic tool to confirm that the model structure is statistically sound.

| | CrossBorder | log(PreROA) | DebtEquity | CrossIndustry | CashPayment | Country-Finland | Country-Norway | Country-Sweden | Year.2016 | Year.2017 | Year.2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CrossBorder | 1.000 | | | | | | | | | | |
| log(PreROA) | -0.318 | 1.000 | | | | | | | | | |
| DebtEquity | 0.181 | 0.205 | 1.000 | | | | | | | | |
| CrossIndustry | 0.144 | 0.104 | 0.212 | 1.000 | | | | | | | |
| CashPayment | 0.050 | 0.105 | 0.240 | 0.279 | 1.000 | | | | | | |
| Country-Finland | 0.036 | 0.042 | -0.030 | 0.250 | 0.036 | 1.000 | | | | | |
| Country-Norway | 0.053 | 0.307 | 0.478 | 0.170 | 0.251 | -0.105 | 1.000 | | | | |
| Country-Sweden | -0.233 | -0.272 | -0.321 | -0.413 | -0.385 | -0.443 | -0.650 | 1.000 | | | |
| Year.2016 | -0.269 | 0.059 | -0.072 | -0.033 | 0.067 | -0.134 | -0.196 | 0.113 | 1.000 | | |
| Year.2017 | 0.150 | 0.138 | -0.134 | 0.060 | -0.303 | -0.120 | 0.088 | 0.067 | -0.223 | 1.000 | |
| Year.2018 | 0.033 | 0.263 | 0.231 | 0.157 | -0.107 | -0.203 | 0.312 | -0.167 | -0.380 | -0.340 | 1.000 |

*Table 2. Correlation matrix on variables in regression H1*

| | CrossBorder | log(PreROA) | DebtEquity | CrossIndustry | CB.PreROA | DE.PreROA | Country-Finland | Country-Norway | Country-Sweden | Year.2016 | Year.2017 | Year.2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CrossBorder | 1.000 | | | | | | | | | | | |
| log(PreROA) | -0.027 | 1.000 | | | | | | | | | | |
| DebtEquity | 0.042 | 0.182 | 1.000 | | | | | | | | | |
| CrossIndustry | 0.148 | -0.008 | 0.113 | 1.000 | | | | | | | | |
| CB.PreROA | 0.200 | 0.458 | 0.148 | 0.114 | 1.000 | | | | | | | |
| DE.PreROA | 0.022 | -0.360 | 0.664 | 0.136 | -0.140 | 1.000 | | | | | | |
| Country-Finland | -0.087 | -0.066 | -0.031 | 0.367 | -0.051 | -0.459 | 1.000 | | | | | |
| Country-Norway | 0.031 | 0.113 | 0.094 | 0.176 | 0.207 | -0.176 | -0.253 | 1.000 | | | | |
| Country-Sweden | -0.023 | -0.128 | -0.103 | -0.076 | -0.023 | -0.433 | -0.537 | -0.196 | 1.000 | | | |
| Year.2016 | -0.023 | -0.030 | -0.074 | -0.041 | -0.253 | -0.527 | -0.196 | 0.113 | 0.113 | 1.000 | | |
| Year.2017 | 0.176 | -0.075 | -0.037 | -0.024 | -0.084 | -0.394 | -0.045 | -0.328 | -0.328 | -0.328 | 1.000 | |
| Year.2018 | 0.124 | -0.122 | 0.077 | 0.040 | 0.033 | -0.344 | 0.062 | 0.111 | 0.121 | -0.164 | -0.166 | 1.000 |

*Table 3. Correlation matrix on variables in regression H2*

## 4.9 Robustness and Alternative Specifications

To ensure the reliability and internal validity of the regression results, several robustness checks were conducted. These checks were intended to assess the stability of the model specifications and to detect potential statistical issues that could undermine the credibility of the findings.

One key diagnostic test performed was the Variance Inflation Factor (VIF) analysis, which was applied to both the H1 and H2 models. VIF is used to detect multicollinearity,

a condition in which two or more independent variables are highly correlated, potentially inflating standard errors and distorting the interpretation of regression coefficients (Frank and Harell, 2015). According to conventional thresholds, a VIF value below 5 is generally considered acceptable, values between 5 and 10 may indicate moderate multicollinearity and warrant closer attention, while values above 10 are typically viewed as problematic (Choueiry, G, 2020). In addition to testing the final model specifications, VIF diagnostics were also conducted on an alternative version of the H1 model that included interaction terms, in order to evaluate whether the smaller sample size introduced unacceptable levels of multicollinearity. These tests informed the decision to exclude interaction terms from the H1 model.

It is worth noting that the constant term often exhibits a high VIF, especially when the model includes multiple dummy variables or centered predictors. This is a known property of the intercept in such specifications and is not considered problematic, as the constant is not a substantive variable of interest(Akinwande et al., 2015).

Beyond multicollinearity testing, the model was also evaluated through alternative functional forms. In particular, regressions were estimated using both the log-transformed and untransformed versions of the PreROA variable. This robustness check was conducted to confirm that the results were not sensitive to the decision to apply a logarithmic transformation. The use of log(PreROA) is theoretically and statistically motivated, where it helps correct for right-skewness in the distribution, reduces the influence of extreme values and enables a proportional interpretation of the coefficient, which is particularly appropriate when dealing with financial ratios that span orders of magnitude.

An additional robustness check was conducted to account for the institutional and cultural consistency offered by the Nordic countries, by re-estimating the regression models using a restricted sample that only included acquisitions where both the acquirer and the target were based in the Nordics. The regression specification, including all control variables and interaction terms, remained unchanged. This approach isolates the effect of M&A characteristics within a more homogeneous regional environment, thereby reducing the influence of cross-country variation and enhancing internal validity.

Finally, specification checks were carried out by including interaction terms in alternative model versions to explore whether the impact of baseline profitability varied with deal characteristics such as cross-border status and financial leverage. These checks helped identify whether the effects of key predictors are consistent across subgroups or dependent on contextual factors.

## 4.10 The Use of Generative AI

In this thesis generative AI tools have been used in a limited and transparent manner, in accordance with the guidelines set by the School of Business, Economics, and Law. AI was used to improve the language clarity and structure of the text without altering the underlying content or arguments. AI was also used as a support tool to quickly obtain overviews of potential academic sources in the early stages of the literature review, helping to assess their relevance. Finally, AI-assisted tools were used as a coding support in Kaggle, primarily to help writing, identify errors, improve the efficiency and readability of the code. All analytical work, argumentation and conclusions remain the result of our own reasoning and critical assessment.

# 5 Results

The following section presents the empirical results, beginning with the estimated outcomes from the OLS regression analysis. It then proceeds to examine the robustness checks conducted to assess the reliability of the findings.

The first regression (H1) demonstrates a high level of explanatory power. The R-squared value of 0.604 indicates that approximately 60,4% of the variation in DeltaROA is accounted for by the independent and control variables included in the model. The adjusted R-squared is slightly lower at 0.382, which supports the model's robustness. The model is statistically significant overall, as indicated by the F-statistic of 8.574 and the corresponding p-value of 0.00185, implying that the joint effect of the explanatory variables on DeltaROA is unlikely to have occurred by chance.

The second regression (H2) which is our more comprehensive one, indicates a large degree of explanatory power, with an R-squared value of 0.583 and an adjusted R-squared of 0.552. This model is overall statistically significant, as evidenced by an F-statistic of 6.910 and an associated p-value of 0.000000000492. These results suggest that the combined influence of the independent variables on Delta ROA is very unlikely to be due to random chance.

| | (H1) Regression Model | (H2) Regression Model |
|---|---|---|
| CrossBorder | 0.0362 | 0.0046 |
| | (0.069) | (0.018) |
| log(PreROA) | -0.7563*** | -0.4867*** |
| | (0.190) | (0.200) |
| DebtEquity | 0.0012 | -0.0076* |
| | (0.004) | (0.004) |
| CrossIndustry | -0.0164 | 0.0324** |
| | (0.034) | (0.016) |
| CB_PreROA | | -0.3877 |
| | | (0.220) |
| DE_PreROA | | 0.0523*** |
| | | (0.020) |
| CashPayment | 0.0168 | |
| | (0.046) | |
| Country_Finland | -0.1038 | 0.0184 |
| | (0.216) | (0.048) |
| Country_Norway | 0.0359 | -0.0025 |
| | (0.165) | (0.036) |
| Country_Sweden | -0.0128 | -0.0202 |
| | (0.151) | (0.031) |
| Year_2016 | -0.0346 | -0.0026 |
| | (0.070) | (0.021) |
| Year_2017 | -0.0343 | 0.0008 |
| | (0.064) | (0.024) |
| Year_2018 | 0.0234 | 0.0398 |
| | (0.085) | (0.030) |
| _cons | 0.0414 | 0.0188 |
| | (0.182) | (0.034) |
| R-squared | 0.604 | 0.583 |
| Adj. R-squared | 0.382 | 0.552 |
| F-statistic | 8.574 | 6.910 |
| Prob F-statistic | 0.002 | 4.92e-10 |
| Skew | -0.281 | 1.421 |
| Observations | 40 | 176 |

*Standard errors in parentheses*
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

*Table 4: OLS Regression Results*

## 5.1 Independent Variables

The variable CrossBorder, which captures whether an M&A transaction was cross-border or domestic, exhibits a negative and statistically insignificant relationship with changes in profitability for both regressions(H1 $\beta = 0.0362$, $p > 0.05$) (H2 $\beta = 0.0046$, $p > 0.05$). This suggests that, within this sample, cross-border deals are associated with slightly higher changes in ROA compared to domestic transactions. However, the effect is not robust and should not be interpreted as conclusive evidence of a performance difference between domestic and international deals.

The variable CashPayment, a binary indicator denoting whether the acquisition was fully financed with cash, has a positive but statistically insignificant coefficient ($\beta = 0.0168$, $p > 0.05$). This suggests that, within this sample, the method of payment, whether cash or alternative forms such as stock or mixed consideration, does not have a meaningful impact on post-merger profitability. The lack of statistical significance may indicate that other deal characteristics or firm-specific factors play a more dominant role in determining performance outcomes for SMEs. It is also possible that the performance implications of payment method, which are often observed in large-firm M&A settings, are less pronounced in the SME context.

## 5.2 Control variables

The coefficient for log(PreROA) (the firm's return on assets prior to the M&A) is statistically significant at the 1% level (H1 regression $\beta = -0.7563$, $p < 0.001$) and (H2 regression $\beta = -0.4867$, $p < 0.001$) and negatively signed in both regressions. The negative relationship between log(PreROA) and $\Delta$ROA is consistent with expectations from both regression-to-the-mean effects and the efficiency-based view of M&A. Firms with strong pre-merger profitability likely had fewer operational inefficiencies to correct through the transaction, limiting the potential for performance gains.

Conversely, underperforming firms may have benefited more from synergies, restructuring, or gotten access to new resources, leading to a greater improvement in post-merger

ROA. This pattern aligns with the efficiency motives behind M&A and supports the idea that M&A can serve as a corrective mechanism for struggling SMEs. Among the variables in the model, log(PreROA) exhibits by far the strongest explanatory power, which is expected given that the acquiring firm typically constitutes the majority of the post-merger entity.

The variable Cross-Industry, a binary indicator representing whether the M&A occurred across industry boundaries, is not statistically significant at the 5% level in the H1 Regression ($\beta = -0.0164$, $p = 0.029$), but statistically significant in the H2 regression ($\beta = 0.0324$, $p = 0.029$). The positive coefficient in the H2 regression indicates that cross-industry acquisitions are, on average, associated with greater improvements in profitability compared to within-industry transactions. These findings suggest that, for SMEs, cross-industry M&A leads to a more favorable outcome than within industry M&A. This contrasts with the results of Kling et al. (2014), who found that such mergers tend to benefit bondholders while harming equity holders, a pattern identified in a study focusing on large firms.

A possible explanation for this difference is that SMEs are less prone to problems associated with empire-building and hubristic management. As previously discussed, the relative absence of such governance issues in SMEs may contribute to the more positive performance effects observed in cross-industry deals. Additionally, a likely explanation for the positive result is that SMEs tend to pursue these deals only when they see clear, strategic benefits. Unlike larger firms, they are less likely to diversify for its own sake and more likely to engage in acquisitions to gain specific assets such as technology or market access. This opportunity-driven approach may help explain the stronger post-merger performance observed in our sample.

The DebtEquity ratio shows statistical significance at the 10% level in the H2 regression($\beta = -0.0076$, $p < 0.05$)and statistically is insignificant in the H1 regression($\beta = 0.012$, $p > 0.05$). The finding aligns with several elements of the theoretical framework. While debt can impose discipline on larger firms, for SMEs, high leverage may instead reflect financial fragility and constrained access to capital.

As discussed prevoiusly, SMEs often lack the collateral or credit ratings required to secure favorable debt terms, which can result in costly financing that burdens the firm post-merger. Additionally, Furfine & Rosen highlighted that M&A activity can increase default risk and for SMEs already carrying high debt loads, this may exacerbate vulnerability rather than enhance performance. This suggests that, unlike in large firms, a higher pre-merger debt burden in SMEs may impair rather than improve post-merger outcomes, consistent with the negative coefficient observed in our model.

The interaction variable CB_PreROA, capturing the combined effect of cross-border status and log(PreROA), is a negative and is not statistically significant at the 5% level ($\beta = -0.3877$, $p > 0.05$). This suggests that the relationship between pre-merger profitability and post-merger ROA does not vary meaningfully depending on whether the transaction was cross-border.

In contrast, the interaction term DE_PreROA, defined as the interaction between DebtEquity and log(PreROA), has a positive coefficient and is statistically significant at the 1% level ($\beta = 0.0523$, $p < 0.01$). This indicates that the negative effect of financial leverage on post-merger performance is smaller for firms with stronger pre-merger profitability. In other words, profitable firms seem to be able to handle higher debt levels, while less profitable firms with high leverage tend to perform worse after the merger.

The constant term has a positive coefficient and is statistically insignificant at the 5% level ($\beta = 0.0188$, $p > 0.05$). Since the primary interest lies in the relationships between the dependent variable and the explanatory variables, the insignificance of the constant is not a concern for the overall interpretation of the results.

## 5.3 Fixed effect

The country-level dummy variables for Country_Sweden, Country_Norway and Country_Finland were all statistically insignificant, indicating that firm location within the

Nordic region did not have a measurable impact on changes in profitability following M&A transactions. This suggests that, after controlling for other firm- and deal-level characteristics, there are no systematic differences in post-M&A performance outcomes attributable to a firm's national context within this sample.

To account for potential time-specific effects, year fixed effects were included in the regression. The coefficients for the year dummies (2016–2018) in both models are generally small and statistically insignificant. This suggests that, after controlling for firm-level and deal-specific characteristics, there is no strong evidence of systematic year-to-year variation in DeltaROA during the sample period.

## 5.4 Robustness check results

| Feature | VIF H1 Regression |
|---|---|
| const | 45.195 |
| Country_Sweden | 5.322 |
| Country_Norway | 3.971 |
| Year_2018 | 3.330 |
| Country_Finland | 3.014 |
| Year_2017 | 2.555 |
| Year_2016 | 2.251 |
| log(PreROA) | 1.981 |
| CrossBorder | 1.776 |
| DebtEquity | 1.634 |
| CrossIndustry | 1.547 |
| CashPayment | 1.487 |

*Table 5. VIF analysis on regression H1*

| Feature | VIF H2 Regression |
|---|---|
| const | 20.364 |
| DE_PreROA | 4.711 |
| Country_Sweden | 4.305 |
| DebtEquity | 3.589 |
| log(PreROA) | 3.474 |
| Country_Norway | 3.326 |
| Country_Finland | 3.284 |
| CB_PreROA | 2.155 |
| Year_2018 | 1.513 |
| Year_2017 | 1.458 |
| Year_2016 | 1.453 |
| CrossBorder | 1.269 |
| CrossIndustry | 1.136 |

*Table 6. VIF analysis on regression H2*

The VIF analysis confirms that multicollinearity is not a major concern in either the H1 or H2 regression models. In the H1 model, all explanatory variables fall below the critical VIF threshold of 5, with the exception of Country_Sweden, which records a VIF of 5.32. This slightly increased value likely stems from the distribution of the sample, where a large share of observations are drawn from Swedish acquirers. This concentration increases the correlation between the Country_Sweden dummy and other independent variables, particularly those related to firm performance and financing. While the value exceeds the standard cutoff, its inclusion remains analytically relevant

given the central role of Sweden in the dataset and the importance of controlling for country-specific effects in the post-merger performance analysis.

In the H2 model, DE_PreROA has the highest VIF value at 4.71. Although still within the acceptable range, this result likely reflects the fact that pre-merger profitability of the acquirer (DE_PreROA) is inherently correlated with other financial variables such as leverage (DebtEquity) and return measures ((log(PreROA)), which capture related aspects of firm performance. Nevertheless, since the value remains below the threshold, its inclusion does not raise multicollinearity concerns.

The high VIF values for the constant term in both models (45.20 in H1 and 20.36 in H2) are expected due to the presence of multiple dummy variables and are not considered problematic, as the intercept is not a variable of substantive interest. Overall, the VIF diagnostics support the internal validity of the regression specifications.

Table 5, VIF analysis on regression H1 with interaction variables VIF testing on the extended H1 model with interaction terms revealed values above the acceptable threshold 5 with multiple interaction variables exceeding 5. These results indicate problematic multicollinearity and support the decision to exclude interaction terms from the final H1 specification

**Nordics only regression**

The results using only Nordic targets are consistent with the main findings. The same variables remain significant and the magnitude and direction of the coefficients remain stable, indicating that excluding non-Nordic targets does not materially alter the core relationships identified in the full sample which indicates a robust result.

| | (H1) Regression Model | (H2) Regression Model |
|---|---|---|
| CrossBorder | 0.0887 | 0.0198 |
| | (0.099) | (0.019) |
| log(PreROA) | -0.6566*** | -0.4868** |
| | (0.181) | (0.197) |
| DebtEquity | 0.0012 | -0.0077* |
| | (0.004) | (0.005) |
| CrossIndustry | -0.0191 | 0.0365** |
| | (0.039) | (0.018) |
| CB_PreROA | | -0.3734 |
| | | (0.224) |
| DE_PreROA | | 0.0521** |
| | | (0.025) |
| CashPayment | 0.0296 | |
| | (0.058) | |
| Country_Finland | 0.0331 | 0.0417 |
| | (0.224) | (0.050) |
| Country_Norway | 0.0416 | 0.0080 |
| | (0.267) | (0.040) |
| Country_Sweden | 0.0298 | -0.0095 |
| | (0.206) | (0.034) |
| Year_2016 | -0.0531 | -0.0085 |
| | (0.066) | (0.022) |
| Year_2017 | -0.0210 | -0.0054 |
| | (0.068) | (0.025) |
| Year_2018 | 0.0096 | 0.0419 |
| | (0.072) | (0.032) |
| _cons | -0.0054 | 0.0065 |
| | (0.230) | (0.037) |
| R-squared | 0.660 | 0.594 |
| Adj. R-squared | 0.482 | 0.562 |
| F-statistic | 5.826 | 5.651 |
| Prob F-statistic | 0.000279 | 5.80e-08 |
| Skew | -0.035 | 1.451 |
| Observations | 33 | 163 |

*Standard errors in parentheses*
**** p <0.01, ** p <0.05, * p <0.1*

*Table 7: OLS Regression Results with Only Nordic Firms*

# 6 Discussion

We are unable to reject our hypothesis (H1) that Cashpaid SME M&A would perform better than non cashpaid SME M&A. The insignificance of the payment type variable in our regression suggests that, within our sample, there is no clear relationship between how the M&A deal is financed and post-merger performance for SMEs.

One possible explanation for this result lies in the specific financing dynamics of SMEs. As mentioned earlier, firms prioritize internal funds over external sources to avoid the costs of information asymmetry. While this pattern tends to be clearer in large firms, SMEs often deviate from it due to structural constraints. As Weitzel and McCarthy (2011) note, SMEs typically have limited access to retained earnings and face challenges in obtaining debt, often resulting in greater reliance on mixed or equity-based financing. In this context, the choice between cash and mixed payments may not reflect a strategic preference but rather a constraint-driven necessity.

Additionally, the simpler ownership structures, may reduce the negative signaling typically associated with non-cash payments in larger firms. Therefore, the lack of significance for payment type in our regression could indicate that, for SMEs, financing methods do not strongly predict post-M&A success in the way it might for larger firms with broader access to capital markets.

We are also unable to reject the hypothesis (H2) that cross-border SME M&A underperforms compared to domestic SME M&A, as the cross-border dummy variable is statistically insignificant at the 5% level in both regression models. The interaction term between cross-border status and pre-merger profitability is also insignificant and while it alters the direction of the estimated effect depending on firm performance, it does not provide conclusive evidence. Together, these results suggest that there is no systematic difference in post-merger ROA between cross-border and domestic SME transactions in our sample.

A likely explanation for this insignificance is the limited institutional, regulatory and

cultural variation among the countries represented in the dataset. Given the high level of market integration within the EU and particularly the Nordic region, many of the integration challenges typically associated with cross-border M&A may be minimal or absent in this context. This reduces the meaningful distinction between cross-border and domestic deals for the firms studied.

Additionally, the dataset contains no cross-border M&As involving non-EU countries and only one case of a Nordic SME acquiring a non-European firm has been seen throughout the research work. This rarity likely reflects broader structural barriers and that the cultural and regulatory distance outside Europe is significantly greater and when combined with the financial and organizational constraints typical of SMEs, it becomes highly challenging for Nordic firms to execute and integrate acquisitions beyond the EU. As such, the absence of non-European targets may not only explain the lack of statistical significance but also underscore a real-world limitation in SME internationalization patterns.

## 6.1 Limitations

The finding that companies with negative ROA before a merger tend to show better ROA after the merger might be influenced by survivorship bias. This means that the analysis only includes companies that survived 5 years after the merger (or at least 3 depending on the acquirer), while those that went bankrupt or disappeared are left out. Because of this, it looks like struggling companies improve after a merger, but in reality, we are only seeing the ones that managed to recover. Many other companies with low pre-merger ROA may have tried to turn things around through a merger but failed and aren't part of the data anymore. This gives a misleading exaggerated impression that mergers are more successful for poorly performing firms.

A key limitation of this thesis is that the evidence is drawn exclusively from SMEs operating within the Nordic region. While this provides a controlled setting for analysis, it also means the findings are highly context-specific and may not be applicable outside this environment. The Nordic countries are characterized by relatively similar institu-

tional frameworks, stable financial systems and low cultural and regulatory distance, particularly in the context of cross-border transactions. As such, the results, including the limited effect of cross-border M&A and the role of financing structures, may not hold in regions with greater institutional fragmentation, less developed credit markets, or more pronounced cultural differences. Therefore, the conclusions of this study should be interpreted as specific to the Nordic SME context and not assumed to generalize to other regions or international M&A environments.

Another limitation of this study is the inclusion of firms with up to two years of missing post-merger ROA data. While this approach preserved sample size, it may have introduced measurement bias. Specifically, calculating $\Delta$ROA based on an incomplete five-year window could skew results toward either short-term or long-term effects, depending on which years were missing. This compromises the consistency of performance measurement across firms and may reduce the comparability of the post-merger performance outcomes.

Additionally, the relatively small sample size in our H1 regression, which includes only 40 observations limits the regression. Such a limited number of data points reduces the statistical power of the analysis, making it more difficult to detect significant relationships even if they exist. Small samples also increase the sensitivity of the results to outliers and reduce the reliability of estimated coefficients, standard errors and p-values. Consequently, the findings from this regression should be interpreted with caution, as they may be more prone to statistical noise and less generalizable.

Finally, another limitation of the analysis is the significant positive skewness in the regression residuals, with a skewness value of 1.421 in our larger H2 regression. This violates the assumption of normally distributed errors, which underpins standard hypothesis testing in OLS regression. As a result, p-values and confidence intervals may be unreliable, potentially leading to incorrect conclusions about statistical significance. This issue is particularly relevant given the relatively small sample size, where the Central Limit Theorem may not sufficiently offset the effects of non-normality. Therefore, the skewness in the residuals introduces a risk that our inference is biased or less robust.

# 7 Conclusion

This thesis set out to examine two central questions concerning M&A performance among Nordic SMEs: whether cash-financed acquisitions (H1) yield superior post-merger returns on assets compared to other financing methods and whether cross-border M&A transactions (H2) underperform relative to domestic ones.

The results do not support either hypothesis. Both the cash payment and cross-border variables were statistically insignificant in the regression analyses, indicating that neither the method of payment or the geographic scope of the M&A had a robust effect on post-merger ROA within this sample. Consequently, we are unable to reject the null hypotheses for H1 and H2. The findings suggest that other factors, such as pre-merger profitability and the cross-industry dummy, play a more central role in driving post-merger performance for SMEs.

The study fulfills its purpose by contributing empirical insights into how financing methods and geographic scope influence SME M&A outcomes, filling a notable gap in the literature that has historically focused on large public firms. In particular, it challenges the usage of the Pecking Order Theory here, which may operate differently in the SME context due to structural constraints and tighter ownership-control alignment.

Methodologically, the study is grounded in robust OLS regressions and controlled for both country and year effects. However, limitations such as small sample sizes (especially for H1), lack of non-EU cross-border transactions and potential survivorship bias should be noted. These limitations may affect the ability to generalize the results beyond the Nordic region or to SMEs with significantly different institutional constraints.

For future research, expanding the sample size, incorporating non-EU cross-border deals, or applying alternative performance metrics could yield more definitive conclusions. Furthermore, qualitative investigations into managerial motives and integration processes may complement these quantitative findings and provide a richer understanding of SME M&A dynamics.

# References

Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance Inflation Factor: As a Condition for the Inclusion of Suppressor Variables in Regression Analysis. Open Journal of Statistics, 5(7), 754–767. https://www.researchgate.net/publication/288059310 [Retrieved 22 May]

Allabolag.se. (n.d.). https://www.allabolag.se/ [Retrieved 23 April 2025]

Axelsson, M.A. and Lundin, F. (2016.) The impact of financial performance on smes utilization of trade credit http://www.diva-portal.org/smash/get/diva2:1033658/FULLTEXT02.pdf [Retrieved 22 May 2025]

Banerjee, A., & Eckard, E. W. (1998). Are Mega-Mergers Anticompetitive? Evidence from the First Great Merger Wave. The RAND Journal of Economics, 29(4), 803–827. https://www.researchgate.net/publication/24049054_Are_Mega-Mergers_Anticompetitive_Evidence_from_the_First_Great_Merger_Wave [Retrieved 23 April 2025]

Beck, T., Demirguc-Kunt, A., & Maksimovic, V. (2006). The influence of financial and legal institutions on firm size. Journal of Banking & Finance, 30(11), 2995–3015. https://doi.org/10.1016/j.jbankfin.2006.05.006 [Retrieved 23 April 2025]

Beckmann, L., & Hutchinson, C. (2020). An analysis of M&A activity in the European SME market and value drivers of post-merger performance [Master's thesis, Lund University]. Lund University Student Papers. https://lup.lub.lu.se/luur/download?fileOId=9017952&func=downloadFile&recordOId=9017951 [Retrieved 29 May 2025]

Carney, M. (2005). Corporate governance and competitive advantage in family-controlled firms. Entrepreneurship Theory and Practice, 29(3), 249–265. https://doi.org/10.1111/j.1540-6520.2005.00081.x [Retrieved 23 April 2025]

Choueiry, G. (2020). What is an acceptable value for VIF? . https://quantifyinghealth.com/vif-threshold/ [Retrieved 22 May 2025]

Coeurdacier, N., De Santis, R. A., & Aviat, A. (2009). Cross-border mergers and acquisitions and European integration. Economic Policy, 24(57), 55–106. hal-01022660. https://sciencespo.hal.science/hal-01022660/file/cross-border-mergers-and-a-nc.pdf [Retrieved 22 May 2025]

Ding, S., Zhang, H., & Liu, M. (2019). Differences in returns to cross-border M&A in the short and long run: Evidence from Chinese listed firms. Emerging Markets Finance and Trade, 55(8), 1701–1715. https://econpapers.repec.org/article/eeeasieco/v_3a74_3ay_3a2021_3ai_3ac_3as1049007821000282.htm [Retrieved 23 April 2025]

Doane, D. P., & Seward, L. E. (2023). Skewness: A Critical Review. Open Journal of Statistics, 13(5), 771–786. https://doi.org/10.4236/ojs.2023.135044 [Retrieved 22 May 2025]

European Commission. (2014). A partial and fragile recovery: Annual report on European SMEs 2013/2014. Publications Office of the European Union. https://op.europa.eu/en/publication-detail/-/publication/2fe47dcb-9ae6-41ab-a037-a3b4d897c5ac [Retrieved 30 March 2025]

European Commission. (2003). SME definition. https://www.eusmecentre.org.cn/wp-content/uploads/2022/12/SME-Definition.pdf [Retrieved 23 April 2025]

Furfine, C. H., & Rosen, R. J. (2011). Mergers increase default risk. Journal of Corporate Finance, 17(4), 832–849. https://doi.org/10.1016/j.jcorpfin.2011.03.003 [Retrieved 23 April 2025]

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. Journal of Management, 35(3),

469–502.https://doi.org/10.1177/0149206308330554 [Retrieved 23 April 2025]

Harford, J. (2005). What drives merger waves? Journal of Financial Economics, 77(3), 529–560. https://doi.org/10.1016/j.jfineco.2004.05.004 [Retrieved 23 April 2025]

Hofstede, G. (1980). Culture's consequences: International differences in work-related values. Beverly Hills, CA: Sage. 474-496 pages. [Retrieved 23 April 2025]

Hollen, R. M. A., van den Bosch, F. A. J., & Volberda, H. W. (2013). The role of management innovation in enabling technological process innovation: An inter-organizational perspective. European Management Review, 10(1), 35–50. https://doi.org/10.1111/emre.12003 [Retrieved 23 April 2025]

IMAA Institute. (n.d.). Mergers & Acquisitions Statistics. https://imaa-institute.org/mergers-and-acquisitions-statistics/ [Retrieved 23 April 2025]

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. American Economic Review, 76(2), 323329. https://www.jstor.org/stable/1818789?seq=1 [Retrieved 30 March 2025]

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://www.sciencedirect.com/science/article/pii/0304405X7690026X [Retrieved 30 March 2025]

Kaasa, A., Vadi, M., & Varblane, U. (2014). Regional cultural differences within European countries: Evidence from multi-level analysis. Management International Review, 54(6), 825–852. https://ideas.repec.org/a/spr/manint/v54y2014i6d10.1007_s11575-014-0223-6.html [Retrieved 23 April 2025]

King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004). Meta-analyses of post-acquisition performance: Indications of unidentified moderators. Strategic Management Journal, 25(2), 187–200. https://doi.org/10.1002/smj.371 [Retrieved 23 April 2025]

Klein, P. G. (2001). Were the Acquisitive Conglomerates Inefficient? The RAND Journal of Economics, 32(4), 745–761. https://www.jstor.org/stable/2696391?seq=1 [Retrieved 23 April 2025]]

Kling, G., Ghobadian, A., Hitt, M. A., Weitzel, U., & O'Regan, N. (2014). The effects of cross-border and cross-industry mergers and acquisitions on home-region and global multinational enterprises. British Journal of Management, 25(S1), S116–S132. https://doi.org/10.1111/1467-8551.12023 [Retrieved 23 April 2025]]

Koerniadi, H., Krishnamurti, C., & Tourani-Rad, A. (2015). Cross-border mergers and default risk. International Review of Financial Analysis, 42, 336–348. https://ideas.repec.org/a/eee/finana/v42y2015icp336-348.html [Retrieved 23 April 2025] ]

Kostova, T. (1999). Transnational transfer of strategic organizational practices: A contextual perspective. Academy of Management Review, 24(2), 308–324. https://doi.org/10.5465/amr.1999.1893938 [Retrieved 23 April 2025]

Krishnamoorthy, K. (2016). Central limit theorem: The cornerstone of modern statistics. https://www.researchgate.net/publication/315764152_Central_limit_theorem_The_cornerstone_of_modern_statistics [Retrieved 22 May 2025]

LSEG, Refinitiv Eikon Excel Plug-in (London Stock Exchange Group, 2025) [Retrieved 3 April 2025].]

Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. Strategic Management Journal, 22(6–7), 565–586. https://doi.org/10.1002/smj.184

[Retrieved 23 April 2025]]

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13(2), 187–221. https://bpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/c/1998/files/2019/06/02_Corporate-Financing-and-Investment-Decisions-When-Firms-Have-Information-That-Investors-Do-Not-Have-Myers-and-Majluf.pdf [Retrieved 30 March 2025] ]

Nordic Council of Ministers. (2021). State of the Nordic Region 2022. Nordregio. https://norden.diva-portal.org/smash/get/diva2:1619933/FULLTEXT01.pdfpage2 [Retrieved 22 May 2025]]

Nordic Statistics. (2023). Enterprises. https://www.nordicstatistics.org/news/enterprises/ [Retrieved 15 May 2025]]

OECD. (2008). Enhancing the role of SMEs in global value chains. European Central Bank. https://www.ecb.europa.eu/home/pdf/research/compnet/Enhancing_the_role_of_SMEs.pdf [Retrieved 22 May 2025] ]

OECD. (2009). Top Barriers and Drivers to SME Internationalisation. Report by the OECD Working Party on SMEs and Entrepreneurship (WPSMEE). https://core.ac.uk/download/9024863.pdf [Retrieved 23 April 2025] ]

Retriever Group. (n.d.). Retriever – Market Leaders in media and data analysis. Retriever Group. https://www.retrievergroup.com/sv/ [Retrieved 22 May 2025] ]

Samuels, J. A. (2024). One-Hot Encoding and Two-Hot Encoding: An Introduction. ResearchGate. https://www.researchgate.net/publication/377159812_One-Hot_Encoding_and_Two-Hot_Encoding_An_Introduction [Retrieved 22 May 2025] ]

Shleifer, A., & Vishny, R. W. (1991). Takeovers in the '60s and the '80s:

Evidence and implications. Strategic Management Journal, 12(S2), 51–59. https://sms.onlinelibrary.wiley.com/doi/epdf/10.1002/smj.4250121005 [Retrieved 23 April 2025] ]

Stahl, G. K., & Voigt, A. (2008). Do cultural differences matter in mergers and acquisitions? A tentative model and meta-analytic examination. Organization Science, 19(1), 160–176. https://doi.org/10.1287/orsc.1070.0270 [Retrieved 23 April 2025]]

Tremblay, V. J., & Tremblay, C. H. (2012). Horizontal, vertical, and conglomerate mergers. In D. R. King, D. R. Dalton, C. M. Daily, & J. G. Covin (Eds.), New perspectives on industrial organization (pp. 521–566). [Retrieved 23 April 2025]]

Weitzel, U., & McCarthy, K. J. (2011). Theory and evidence on mergers and acquisitions by small and medium enterprises. International Journal of Entrepreneurship and Innovation Management, 14(2–3), 248–275. https://www.researchgate.net/publication/38285959_Theory_and_Evidence_on_Mergers_and_Acquisitions_by_Small_and_Medium_Enterprises [Retrieved 23 April 2025]

World Bank. (n.d.). Small and Medium Enterprises (SMEs) Finance. World Bank. https://www.worldbank.org/en/topic/smefinance [Retrieved 23 April 2025]

Wu, S. (2020). Small is beautiful or big is better: How much do industry and family ownership matter in firms of different sizes? European Management Review, 17(3), 843–856. https://doi.org/10.1111/emre.12408 [Retrieved 23 April 2025]]

Zaheer, S. (1995). Overcoming the liability of foreignness. Academy of Management Journal, 38(2), 341–36 https://www.jstor.org/stable/256683 [Retrieved 23 April 2025]