



**UNIVERSITY
OF TURKU**

Turku School of
Economics

The Impact of Financial Due Diligence Findings on Enterprise Value

Accounting and Finance

Bachelor's thesis

Author:

Olivia Sørensen

Supervisor:

Ph.D. Javad Rajabalizadeh

4.12.2025

Turku

Student's statement regarding the use of Artificial Intelligence (AI) for preparing and/or writing this thesis:

I have not used any AI-based tools.

I have used AI-based tools. Their use is documented in the Appendix. The AI tools were used in a way that complies with academic integrity guidelines.

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Bachelor's thesis

Subject: Accounting and Finance

Author: Olivia Sørensen

Title: The Impact of Financial Due Diligence Findings on Enterprise Value

Supervisor: Ph.D. Javad Rajabalizadeh

Number of pages: 46 pages + appendices 5 pages

Date: 4.12.2025

Abstract

This thesis examines how findings uncovered during the financial due diligence process relate to firm's valuation outcomes in mergers and acquisitions (M&A) transactions. This study aims to assess if valuation multiples are affected by common objects examined during financial due diligence – revenue volatility, working capital and cashflow sustainability. The motivation for this study arises from the lack of empirical research conducted regarding this topic precisely. The literature review presents the reader the understanding of why due diligence is a necessary tool to reduce information asymmetry and mitigate post-acquisition integration challenges.

The empirical part of the study exploits the ordinary least squares (OLS) regression framework to assess the relationship between the due diligence findings and the valuation outcome. The sample consists of 50 acquired firms from years 2009-2025 operating in five different industries to ensure the dataset presents versatility and comprehensiveness. The firm-level financial data retrieved from Bloomberg database emphasized on the year prior to the deal announcement to make sure that the regression results were not biased by the deal announcement.

The study confirmed that leverage, Tobin's Q and the technology industry significantly impacted the valuation multiple Enterprise Value to Earnings Before Interest, Taxes, Depreciation, and Amortization (EV/EBITDA) ratio. This result is consistent with financial literature stating that higher risk caused by leverage leads to lower valuation results whereas Tobin's Q and the technology industry indicating positive growth expectations produce higher valuation multiples.

Nevertheless, the independent financial due diligence variables were not statistically significant, which indicates that the process's impact can be found through negotiation terms and other qualitative measures. Financial due diligence operates via deal terms rather than valuation multiples. This highlights the role of due diligence being a monitoring and verification mechanism which contributes to a better-informed decision-making process.

Keywords: Due diligence, Valuation, Asymmetric information, Agency theory, Mergers and Acquisitions, Qualitative measures

Kandidaatintutkielma

Oppiaine: Laskentatoimi ja rahoitus

Tekijä: Olivia Sørensen

Otsikko: Taloudellisen Due Diligence -Prosessin Löydösten Vaikutus Yrityksen Arvonmääritykseen

Ohjaaja: Ph.D. Javad Rajabalizadeh

Sivumäärä: 46 sivua + liitteet 5 sivua

Päivämäärä: 4.12.2025

Tiivistelmä

Tämä tutkielma tarkastelee, kuinka due diligence -prosessin aikana esiin tulleet havainnot liittyvät yrityksen arvonmäärityksen lopputuloksiin yrityskaupoissa. Tutkimuksen tavoitteena on selvittää, vaikuttavatko taloudellisessa due diligence -prosessissa tyypillisesti tarkasteltavat osa-alueet, kuten liikevaihdon volatiliteetti, käyttö pääoma ja kassavirran kestävyys, arvostuskertoimiin. Kirjallisuuskatsaus antaa lukijalle ymmärryksen siitä, miksi due diligence on välttämätön väline epäsymmetrisen informaation vähentämiseksi ja yritysostojen jälkeisten integraatiohaasteiden lieventämiseksi.

Tutkimuksen empiirinen osa hyödyntää pienimmän neliösumman menetelmää, jotta voidaan arvioida due diligence -löydösten ja arvonmäärityksen välistä yhteyttä. Aineisto koostuu 50 yrityksestä, jotka toimivat viidellä eri toimialalla, jotta aineiston voidaan olettaa olevan monipuolinen ja kokonaisvaltainen. Näitä yrityksiä koskevat taloudelliset tiedot on haettu Bloomberg-tietokannasta. Haun aikarajauksena on käytetty vuotta ennen yrityskauppailmoitusta.

Tutkimuksen tuloksena todettiin, että velka, Tobinin Q ja teknologia sektori vaikuttivat merkittävästi yritysten arvostuskertoimeen, joka on määritelty seuraavasti: yritysarvo jaettuna tuloksella ennen veroja, velkojen korkoja, poistoja ja arvonalentumisia. Tämä tulos on yhdenmukainen taloudellisen kirjallisuuden kanssa, jonka mukaan suurempi riski, jota velka aiheuttaa, johtaa alempiin arvostuskertoimiin, kun taas positiiviset kasvuodotukset näyttäytyvät korkeampina arvostuskertoimina.

Vaikka taloudellisen due diligence -prosessin löydökset eivät olleet tilastollisesti merkittäviä, prosessin vaikutus voidaan havaita neuvotteluehdoissa ja muissa laadullisissa tekijöissä. Tutkimuksen tuloksena taloudellisen due diligence:n vaikutukset voidaan havaita sopimusten ehdoissa eikä niinkään arvostuskertoimissa. Tämä korostaa due diligence -prosessin roolia valvonta- ja varmennusmekanismina, joka edistää paremmin informoitua päätöksentekoprosessia.

Avainsanat: Asianmukainen Huolellisuus (Due Diligence), Arvonmääritys, Epäsymmetrinen Informaatio, Agenttiteoria, Yrityskaupat, Laadulliset Tekijät

TABLE OF CONTENTS

1	Introduction	8
1.1	Research Gap	10
1.2	Limitations	10
1.3	Structure	10
1.4	Motivation	11
2	Literature Review	13
2.1	Theoretical Framework	13
2.1.1	Agency Theory	13
2.1.2	Information Asymmetry Theory	15
2.1.3	Efficient Market Hypothesis	17
2.2	Due Diligence	18
2.2.1	Types of Due Diligence	19
2.2.2	Key Components of Financial Due Diligence Process	19
2.2.3	Challenges of Financial Due Diligence	21
2.2.4	Due Diligence in Deal Structuring	21
2.3	Discounted Cash Flow Model	22
2.3.1	Core Principals of the DCF Model	22
2.3.2	Free Cash Flow Forecasting	23
2.3.3	Discount Rate and Risk Adjustments	24
2.3.4	Terminal Value	25
2.3.5	Limitations of DCF Model	25
2.4	How Due Diligence Maps into Valuation Variables	25
2.5	Research Hypotheses	26
3	Methodology and Data	28
3.1	Sampling and Data	28
3.2	Variable Definition	29
3.3	Methodology	31
4	Results	33
4.1	Descriptive Statistics and Correlation Matrix	33
4.2	Regression Model Fit and Significant Variables	34
4.3	Discussion on Non-Significant Due Diligence Variables	36

5 Conclusions	40
References	43
Appendices	47
Appendix 1 Variable Definition	47
Appendix 2 Descriptive Statistics (Raw vs. Winsorized)	47
Appendix 3 Correlation Matrix (and p-values)	48
Appendix 4 Linearity test	48
Appendix 5 Breusch-Pagan test on Homoscedasticity	49
Appendix 6 Durbin–Watson test for Autocorrelation	49
Appendix 7 VIF test	49
Appendix 8 F-test for Joint Significance of the Due Diligence Variables	49
Appendix 9 Regression Results for the Original Model	50
Appendix 10 Industry-Clustered Regression Results	50
Appendix 11 Additional Regression Results	51
Appendix 12 Declaration of the Use of Artificial Intelligence (AI)	51

TABLES

Table 1. Descriptive Statistics	33
Table 2. Correlation Matrix	34
Table 3. Regression Results for Determinants of Enterprise Value (Dependent Variable: $\ln(\text{EV}/\text{EBITDA})$)	35
Table 4. F-test for Joint Significance of Financial Due Diligence Variables	38
Table 5. Additional Regression Results	39

1 Introduction

In 2024, global mergers and acquisitions (M&A) deals held a value up to \$3.4 trillion which was a 12% increase from the year 2023 (Henry and Van Oostende, 2025). The benefits of M&A transactions are typically realized through value creation derived from improved productivity, efficiency and strategic alignment (Jovanovic et al., 2002). As one of the largest drivers of capital allocations across industries, M&A plays a vital role in global economic dynamics.

Before any M&A deals are executed, a thorough due diligence process is conducted to ensure that the deal is fair and transparent. Practitioners underline the vitality of due diligence process in any investment decision (Ernst & Young, 2022). The greater information the buyer holds about the target company, the more accurately they can assess what exactly is being acquired.

Mergers and acquisitions represent some of the most strategic decisions firms can undertake. A merger is conducted when two parties form a new company and share approximately equal ownership. In an acquisition, one party purchases more than 50% of the other parties shares or a part of the company. Both forms aim to achieve corporate growth, restructuring and access to new markets. Typical motives for pursuing M&A include synergies concerning costs, where tax benefits or vertical integration can be beneficial for cost-reducing, or revenue, where advantage is being sought by combining assets and knowledge (Junni and Teerikangas, 2019).

Despite these desired benefits, it is not guaranteed that the outcome of an M&A transaction will deliver the utility that is being sought after. Studies estimate that around 70% to 90% of M&A deals fail to achieve their intended targets, where one of the factors behind is often due diligence performed insufficiently (Dilawer, 2025). The underlying issue typically is that the buyer did not fully identify or quantify the target's risks and value drivers before acquisition. Another reason for this high failure rate lies in valuation errors. For instance, when acquisitions are financed partly with acquirer's stock, overvalued buyers may pay excessive prices preventing the expected synergies from materializing (Shleifer and Vishny, 2003). Although this thesis is limited to examining the valuation of the target company, this research supports the importance of accurate valuation. Overvaluation often leads to overpayment, where due diligence plays a key role in mitigating this risk.

Due diligence process starts after an acquisition target has been detected. Emphasis is now on the information the buyer can gather before closing the deal. Due diligence helps appreciate the relevant information about the acquired company, the underlying risks the acquired business holds and negotiation terms. This process is required for the safety of the buyer, since often companies try to

sweep problematic information under the rug to gain a better end price (Howson, 2003). However, the accuracy of any valuation model depends on the reliability of the input data. Due diligence will validate the existing assumptions and adjust them based on the information detected during the process.

According to Howson (2003), common issues that emerge during the due diligence process are profit depending on a few major clients, seasonal fluctuations in sales and information about liabilities not provided beforehand. Another essential aspect to analyse properly is cash flow, since it is a vital element in the valuation calculations. Due diligence focuses on understanding potential outcomes and identifying associated risks. For the buyer to achieve the intended results in M&A, due diligence will help to paint a realistic and comprehensive picture of the financial state of the target company. If due diligence process uncovers unexpected issues that negatively impact valuation, the buyer can renegotiate the terms of payment or adjust the price accordingly.

Overall, valuation plays a significant role during the negotiations. While researchers have developed a variety of valuation models over time, the valuation multiple Enterprise Value to Earnings Before Interest, Taxes, Depreciation, and Amortization (EV/EBITDA) ratio is in practice one of the most widely applied ones (McKinsey and Company, 2015). Different multiples are derived from the foundations of the Discounted Cash Flow (DCF) model by embedding assumptions about risk, profitability and growth. This thesis is grounded on the fundamental valuation model, the discounted cash flow model, to verify the economic logic behind valuation, while the empirical analysis employs EV/EBITDA as a practical proxy. The multiple applied in this thesis is implied by the pre-deal announcement variables, to ensure that the acquisition is not affecting the relationship between the variables.

To lay the foundation for the topic of this thesis, relevant corporate finance theories will be introduced to explain the importance of reliable information regarding valuation. Financial theories and empirical evidence are combined to establish a robust and diverse analysis. Agency theory (Jensen and Meckling, 1976) stresses how conflicts of interest between management and shareholders can lead to a biased financial forecast and information asymmetry theory (Akerlof, 1970) elaborates the risk that buyers face, when sellers hold greater information about the acquired company. Efficient market hypothesis (Fama, 1970) argues that a targets price fully reflects available information, which in M&A especially never is that simple. These theories introduced in the beginning of the literature review will underline how due diligence functions as a crucial tool to ensure that the valuation assumptions are as truthful and close to reality as possible.

1.1 Research Gap

While due diligence process and discounted cash flow model have both been widely studied individually, studies linking these two together are still limited. The initial issue is that the DCF model, as any other model, is only as valuable as the assumptions behind it are. In M&A, not to mention any transaction, the buyer wants to be assured that they are not overpaying for the target in question. Often managers are overly optimistic with forecasts and tend to over value assets and disregard underlying liabilities. M&A processes are complex and hold an even higher risk if there is a major lack of crucial information. Due diligence offers a tool, that helps prevent mistakes originating from lack of information. This thesis aims to examine this gap in empirical studies related to due diligence's relevance regarding valuation in M&A transactions.

1.2 Limitations

Due diligence is a wide concept, which aims to incorporate all different aspects of a business. Some of the areas it covers are financial, legal, tax, commercial, operational, Environmental, Social and Governance (ESG), Information Technology (IT) and intellectual property. This thesis will be limited to only observing financial due diligence. It is one of the core aspects of due diligence, which makes it relevant and adequate to study. This does not mean that only findings through financial due diligence affect the valuation results, but those are the only matters that are being analysed in this thesis.

Due diligence reports compiled by practitioners are classified documents which cannot be accessed by outsiders. This limits the study to examine only public information that can be gathered about the due diligence process.

Moreover, the regression model will be limited to examining 50 M&A deals. This will give a robust and reliable database but does not ensure a fully generalized picture across geographies, industries or deal types. Finally, the proxies used in the regression model are simplified measures and may not fully reflect adjustments uncovered during the due diligence process. These limitations should be considered when interpreting the results of this study.

1.3 Structure

The next part of this thesis will concern the literature review, where the relevant theoretical frameworks will be discussed. Additionally, due diligence and the DCF valuation model will be elaborated more thoroughly. The theories will play a part in explaining why due diligence is a

considerable factor to entail a successful acquisition and how it influences the valuation results. By collecting information from academic research papers, industry reports and other literature following great academic standards, this research will establish the understanding of the effects due diligence has. The literature review will mainly be based on JUFO-ranked journals and peer-reviewed sources. Industry reports from McKinsey, KPMG and PwC will also be included as sources to strengthen the academic literature.

The empirical part is conducted by running a regression model and analysing the impact of due diligence findings on valuation outcomes. Chapters 3-5 will endorse in a holistic picture of the impact due diligence process has. This part will support the literature review by applying a qualitative test using essential data.

1.4 Motivation

Prior literature highlights that the acquisition process is a key factor to achieve superior performance in mergers and acquisitions (Laamanen and Keil, 2008). This supports the significance due diligence has in ensuring that valuation inputs used in models like DCF are based on reliable information. M&A transactions tie up billions of capital allocations and represent a widely used corporate strategy, making this topic both relevant and fascinating to study.

Due diligence's objective is to gather evidence and test if the forecasts provided by the management of the acquired company are reliable and hold all relevant information regarding the transaction. During due diligence, management's forecasts are being tested and possibly corrected. Over optimism and artificial numbers can be related to revenue growth, EBITDA normalization or working capital (Howson, 2003). It is assumed that these findings then affect the assumptions made in the DCF valuations, and so on influence the end-price of the acquisition.

From a practical perspective, the emphasis of due diligence is highly relevant for investment banks, consulting firms, private equity investors and corporate finance professionals who rely on due diligence to inform negotiations and deal structuring. Therefore, this thesis aims to communicate due diligence findings' impact on valuation results and highlight the importance of executing proper due diligence. In the empirical part of this thesis, revenue volatility, working capital and cash flow sustainability are being tested for their influence on the EV/EBITDA multiple, which is widely used by practitioners.

The motivation for this thesis arises from the central role that accurate valuation plays in M&A transactions. Specifically, this study aims to investigate how due diligence process and its findings

are united with valuation multiples used in practise. The purpose of the analysis is to answer this research question:

How do financial due diligence findings affect valuation results?

This is tested by evaluating the influence of revenue volatility, working capital and cash flow sustainability on the EV/EBITDA multiple. The results demonstrate no significant effects of the due diligence variables at 5%, while Tobin's Q, leverage and the technology industry are strongly related to valuation. Hence, by combining theoretical perspectives with empirical research, this thesis contributes to a more exact understanding of the role of due diligence in shaping valuation outcomes.

2 Literature Review

This chapter reviews the relevant academic and professional literature concerning valuation and the due diligence process in mergers and acquisitions. The objective is to establish a theoretical foundation for understanding how financial due diligence influences valuation, the DCF inputs, and thus the EV/EBITDA multiple, and supports decision-making in M&A transactions.

The literature review is divided into three main sections. The first section presents the principal theoretical frameworks consisting of agency theory, information asymmetry theory and the efficient market hypothesis. These theories are introduced to explain why valuation in M&A often deviates from theoretical efficiency. Information unevenly distributed and the challenges it causes regarding accurate valuation highlight the vitality of the due diligence process in the context of M&A.

The second section will examine due diligence and have emphasis on financial due diligence and its impact on M&A transactions. This part discusses the main components of due diligence process and underlines how its findings affect valuation models and deal structures.

Lastly, the DCF model will be elaborated as the foundational framework regarding valuation. The DCF model connects a company's value to its expected future cash flows, growth prospects and risk profile. This section also explains how valuation multiples used in practice, particularly EV/EBITDA, are connected to the DCF models assumptions.

2.1 Theoretical Framework

2.1.1 Agency Theory

Jensen and Meckling (1976) introduced agency theory in one of the most influential papers of corporate finance. The theory is based on the core concept of the principal delegating authority to the agent to make decisions on their behalf. As both parties are expected to act in their own benefit, the problem arises from conflicts of interests, and the fact that agents often have more control than the principals.

In broader research, agency theory has been applied extensively to explain organizational and financial behaviours. It provides the fundamental basis for studying issues such as executive compensation, dividend policy, capital structure and risk-taking (Holmström, 1979; Jensen 1986; Fama and Jensen, 1983). In the private equity setting, active ownership and tighter covenants are interpreted as mechanisms to reduce agency conflicts (Kaplan and Strömberg, 2009). Research on corporate governance suggests that contracts clearly separating control inside corporations mitigates

agency costs (Fama and Jensen, 1983). In addition, stock options and profit-sharing schemes are mechanisms that operate in the direction of aligning managers interests with the owners. Overall, across literature a common pattern is that monitoring, incentives structures and transparent information flows improve decision quality and value. By minimizing agency costs, firms are more likely to achieve greater financial performances and operate more efficiently in competitive markets.

Across the financial sector, agency theory is a foundational concept as it connects organizational structures to value creation. Corporate finance research has outlined how capital structures influence managers decision-making, specifically risk-taking (Jensen, 1986). Additionally, auditors, internal controls and market discipline serving as monitoring mechanisms are widely studied in the context of reducing agency costs (Healy and Palepu, 2001). These tools appropriately utilized will strengthen transparency and ensure a united objective between management and shareholders.

Agency theory outlines the relevance and benefits of due diligence in M&A transactions (Jensen and Mechling, 1976). The target companies' management may have a temptation to overestimate future revenues which exaggerates the firm's value. Hence, agents can be described as risk averse, empire builders and short-term sighted. Due diligence enables acquirers to identify such behaviour by verifying financial forecasts, assessing the sustainability of cash flows and finally adjusting valuation assumptions accordingly. For example, underinvestment in previous periods may result in lower future cash flows, while aggressive end-of-year sales tactics may temporarily boost revenues. A thorough due diligence process helps recognize these distortions and readjust assumptions related to the DCF model to reflect economic reality. These inputs then mould the finished valuation multiple EV/EBITDA, which is comparable inside an industry. Nevertheless, principals must come up with solutions to navigate agents to make decisions that grow shareholder value.

However, monitoring and control activity are not realized without a cost. Jensen and Mechling (1976) classify agency costs into three categories: monitoring expenditures by the principal, bonding expenditures by the agent and residual loss. Monitoring costs are induced by principal's compulsory to supervise agents and their behaviour. The supervision can be conducted for instance through auditors or due diligence process. Bonding costs stem from agents needing to demonstrate alignment with principal's interests, which can occur through warranties, escrow arrangements or an attempt to present substantial information about the firm's economic health. Residual loss represents the efficiency losses that remain even after monitoring and bonding efforts.

In this thesis, the buyer represents the principal and the target firm's management the agent. Agency theory therefore explains why due diligence is essential and how it can serve as a tool to

reduce agency costs and ensure an accurate and reliable valuation outcome. Prior research highlights that acquirers often overpaying for targets in mergers and acquisitions transactions can partially be accounted by agency theory (Laamanen, 2007). Additionally, it is underlined that due diligence should be viewed as a monitoring tool that helps align incentives between parties, verifies financial information and minimizes the risk of mispricing in mergers and acquisitions.

2.1.2 Information Asymmetry Theory

Information is rarely distributed equally among participants in the economic market. This imbalance, known as information asymmetry, takes place when one party holds superior information relative to the other party, creating an unequal basis for decision-making. George Akerlof (1970) in his seminal paper “The Market of Lemons” was the first one to characterize the idea of asymmetric information. He demonstrated a used-car market example, where one party held more information than the other about the quality of the vehicles. The outcome was that good cars were pushed out of the market, leaving only low-quality cars remaining. This finally led to the markets failing, which highlights the inconvenience asymmetric information introduces. Unequal access to information can contribute to distorted prices and reduce efficiency by driving out good investments and making less profitable ones be chosen. This issue remains central in modern finance and is also relevant to mergers and acquisitions.

Information asymmetry has become one of the most widely applied concepts in economic and financial research. It provides the theoretical background for understanding several issues such as moral hazard and adverse selection. In credit markets, Stiglitz and Weiss (1981) show that lender’s limited information about borrower’s creditworthiness leads to credit rationing. Similarly, in insurance markets, Rothschild and Stiglitz (1976) demonstrate how insurers lack of information about the health risks of individuals creates challenges for fair premium pricing. Beyond these examples, the theory is expanded to corporate finance research on capital structure, corporate governance, auditing and financial reporting, where it has been applied broadly.

In corporate finance, information asymmetry explains why investors demand higher expected returns when information about a firm’s risk is uncertain. Healy and Palepu (2001) stress that financial reporting and auditing function as tools to reduce the imbalance between corporate insiders and external investors. Likewise, Myers and Majluf (1984) applied the concept to the pecking order theory, explaining why managers prefer internal financing and debt over issuing new equity – to avoid sending negative signals about a firm’s value to the market. The principle of this theory is that managers hold superior information about the company and try to avoid adverse signaling effects

through the capital structure of the company. Together, these studies highlight that information asymmetry is a feature of all financial and corporate transactions.

From mergers and acquisitions point of view, the management of the target company typically holds superior information about the company's risks, financial state and growth possibilities compared to the acquirer. The buyer is faced with a risk of overpaying for the target and possibly overlooking key liabilities. This risk of adverse selection is caused by the imbalance of information between the two parties. Studies also show how post-acquisition performance is strongly affected by the information shared during pre-acquisition negotiations (Reuer et al., 2012). In essence, only the sellers know if the company is worth to invest in, while the acquirer faces uncertainty. The acquisition is more likely to fail when information asymmetry causes substantial distinctions regarding knowledge and information.

To ensure the damage inflicted by asymmetric information is as minor as possible, theories like signaling and screening have been introduced. Spence (1973) characterized the term "signaling" and argued that the informed parties can undertake actions to illustrate their value. For example, education serves as a reliable signal of ability and demonstrates motivation to pursue ambitions. In finance, high quality audited financial statements perform a similar role by signaling transparency and credibility. In M&A, due diligence contributes to a trustworthy picture of the firm's financial performance and serves as a signal when the seller provides verified data to demonstrate the target's value and reliability.

While signaling relies on the informed party to supply the reliable information, screening refers to efforts made by the less-informed party to extract information. Rothschild and Stiglitz (1976) introduced screening in the insurance markets, where insurers design different contracts to persuade individuals to reveal their own level of risk. A similar mechanism operates in M&A, where the buyer employs due diligence as a screening process to uncover hidden risks, test management's assumptions and assess future performance reliability. Both signaling and screening mechanisms reduce valuation uncertainty, enhance trust and support more efficient M&A transactions.

Finally, although trust plays a significant role in economic transactions, relying solely on it is insufficient in M&A. It is necessary to dig deeper than the provided information to ensure that the deal is fair and correctly valued and that all relevant information is being considered (Akerlof, 1970). In valuation, information asymmetry poses a direct threat to accuracy. The DCF model, as well as the EV/EBITDA valuation multiple, assumes that the inputs of the model fully reflect the underlying financial state of the firm. In practice, however, information asymmetry makes these inputs prone to

bias and overoptimism. Due diligence serves to correct these biases by verifying data and ensuring that valuation reflects the true economic condition of the target company. This illustrates how information asymmetry theory provides the foundation for due diligence. It explains why information verification is essential to achieve accurate valuation outcomes and reduce the risks of overpayment in M&A transactions.

2.1.3 Efficient Market Hypothesis

The efficient market hypothesis introduced by Fama (1970) is one of the central theories in modern finance. It proposes that asset prices reflect all information available and are hence priced correctly. The model relies on investors being rational, where price equilibrium is restored quickly if an asset price deviates from its intrinsic price.

Fama (1970) classifies three forms of market efficiency: weak, semi-strong and strong form. In the weak form, asset prices are merely based on their historical performance, making analysis on trading volume and historical price inefficient to generate excess returns. The semi-strong efficiency proposes that prices reflect all publicly available information. This suggests that performing fundamental analysis by assessing financial statements, evaluating competitive dynamics and performing macroeconomic analysis it is not possible to reach abnormal returns. In the strong form of efficiency, even private and insider information is fully reflected in market prices, making it impossible for any investor, including insiders, to gain advantage from any analysis (Fama, 1970).

In broader research, efficient market hypothesis serves as the foundation for asset pricing models, portfolio theory and capital market regulation. While earlier studies have presented empirical evidence to support the semi-strong form, later studies have challenged the assumption by investors not always being rational and markets demonstrating anomalies (Kahneman and Tversky, 1979; Fama and French, 1992). Thus, all publicly available information is not projected directly on asset prices and fundamental analysis may be of use to generate abnormal returns.

This limitation underlines the significance of due diligence. When the markets are semi-efficient, buyers can acquire private information through due diligence and identify mispriced targets. The process allows the acquirers to uncover information not yet reflected in the market prices and enables the buyers to make better-informed decisions (Fama, 1970). Hence, due diligence compensates for market inefficiency by ensuring that decision-makers have access to both public and non-public information before determining the final acquisition terms.

Valuation plays a considerable role in negotiating the acquisition terms. The discounted cash flow model is directly linked to efficient market hypothesis, since the model assumes that the inputs fully reflect all relevant information. However, since the markets are only at highest semi-efficient, this assumption is faced with an issue. Due diligence aims to function as a corrective mechanism that improves the reliability of these inputs and ensures that the estimated enterprise value reflects accurately the company's true financial state (Damodaran, 2012).

To conclude, the efficient market hypothesis provides an important theoretical motive to due diligence. Since empirical evidence shows, that private information is not reflected in market prices, due diligence is needed in M&A transactions to evaluate how the private information provided corrects the valuation.

2.2 Due Diligence

Due diligence is a fundamental component of the mergers and acquisitions process and serves as a systematic examination of the target company. The process relies heavily on practitioners' actions, since the term lacks a legal and official concept. Nevertheless, due diligence is widely recognized as a risk-reducing mechanism that allows the acquiring party to make an informed investment decision (Howson, 2003). It reduces uncertainty, uncovers risks and ensures that the acquirer understands the true economic state of the target firm.

To mitigate this financial insecurity, due diligence is carried out by verifying the reliability of financial statements, identifying off-balance-sheet liabilities and assessing the sustainability of earnings and cash flows. The more comprehensive the due diligence process is, the greater leverage the buyer holds in negotiations. Therefore, due diligence functions as a mechanism to prevent overpayment and contributes to a more transparent transaction.

In today's highly competitive M&A environment, due diligence process must be both extensive and time efficient. Due diligence's role has expanded beyond financial review, due to the increasing complexity of corporate structures and intangible assets. The process properly executed protects the buyer by uncovering risks but also identifies opportunities for value creation (Lebedow, 1999). Hence, due diligence operates both in the protective role and the value-creating role.

2.2.1 Types of Due Diligence

Although this thesis is limited to observing financial due diligence, it is important to acknowledge that it is only one part of the whole due diligence process in M&A transactions. Due diligence is a multidimensional process that extends beyond the financial domain.

Legal due diligence covers the area of reviewing contracts, ownership rights and compliance issues. Tax due diligence done properly, can generate significant savings for the buyer by structuring the deal efficiently. This process also includes examining tax compliance and identifying tax liabilities that can rise as a result of the transaction (Howson, 2003). Operational due diligence aims to review the acquired company's operational aspects and evaluate how they will fit into the existing enterprise structure of the buying company. The area of intellectual property due diligence focuses on intellectual and intangible rights the target company is in possession of, such as patents, copyrights, trademarks and software. By investigating this area, due diligence can uncover unexpected and hidden infringements which can cause a lot of trouble after the acquisition is done (Bhagwan et al., 2018). These are only some areas of due diligence, and the process is expanded widely to examine all aspects of a company.

These different areas of due diligence are not separated from each other but rather interact with each other and form a united entity. Due diligence can be seen as having two roles: the protective role, revealing hidden risks, and the value-creating role, improving efficiency and providing awareness on growth opportunities. Lebedow (1999) even argues that in order to achieve the most value post-acquisition, the acquiring company should perform due diligence also on itself. He highlights that the deeper the due diligence process goes, the more likely the acquisition will be successful. Prior study emphasizes the fact that due diligence is a wide and versatile process which well performed will lead to better post-acquisition results.

2.2.2 Key Components of Financial Due Diligence Process

The role of financial due diligence is to provide an understanding of a company's financial state. The process involves a thorough evaluation of historical financial performance, revenue quality, working capital management and capital structure. This section will present these primary areas that are examined in financial due diligence and elaborate why they are prominent.

A detailed analysis of historical financial performance provides insights into the company's profitability, growth patterns and risk exposure. Financial due diligence aims to distinguish whether growth is organic or if it is dependent on seasonality. High volatility in revenue growth can cause

uncertainty and it must be evaluated critically, effecting future cash flow forecasts (Howson, 2003). The impact of this is reflected through the DCF model's valuation outcomes. If future cash flow is revealed to be overestimated, the effects can be seen in the valuation results being lower. Connecting this to measurements used to compare companies in the same industry, it lowers the valuation multiple EV/EBITDA and makes the firm less valuable. Another core objective is validating reported figures. Prior studies emphasize that valuation errors frequently stem from incomplete documentation or inconsistencies in accounting statements (Vochozka and Kovač, 2023). This highlights the importance of adopting a critical and investigative approach towards balance sheets and other audited documents.

The quality of earnings and revenue recognition is also an essential area of focus. It aims to identify risks of earnings manipulation and assess if the reported earnings reflect the actual cash-generating ability (Howson, 2003). A central part to examine is to separate recurring and non-recurring operating income. These items can be asset disposals, restructuring costs or litigation settlements. Due diligence process evaluates these aspects and normalization adjustments are applied to ensure that a company's long-term profitability isn't overestimated (Wangerin, 2019). Furthermore, compliance with relevant accounting standards such as IFRS 15 should be examined to ensure that revenues represent genuine economic activity rather than accounting manipulation (DePamphilis, 2018).

Moreover, working capital and liquidity analysis are central to verify that the company can generate free cash flow and sustain operations. Working capital typically involves assets like receivables, payables, cash and inventory (Boisjoly et al., 2020). The emphasis is on evaluating if the working capital is managed efficiently, identifying fluctuations in liquidity and testing if the working capital is sufficient for operations. Large amounts of receivables and inventory tie up cash, which causes inefficiency in the working capital structure. Due diligence revealing payables being often late can signal cash flow stress. DePamphilis (2018) notes that working capital is among the most frequent sources of post-closing disputes in M&A transactions, making it a recurring point of contention between buyers and sellers and a substantial object of investigation in due diligence.

Finally, due diligence practitioners review a company's financing structure and extend the inspection to off-balance sheet liabilities as well. Debt covenants, interest rates and maturity schedules are assessed to analyse refinancing risks and leverage sustainability. Hidden obligations, such as guarantees, operating leases or joint ventures can significantly affect enterprise value

(Lermyte, 2025). To ensure that the valuation accurately reflects the target company's financial risk profile, these exposures are critical to be identified.

By reviewing these elements, the buyer will achieve a clearer picture of the target company's financial sustainability. This information will form the basis for the valuation process. The examination will ensure that the assumptions embedded in the DCF model, as well as EV/EBITDA multiple, are both credible and defensible.

2.2.3 Challenges of Financial Due Diligence

The key in due diligence process is knowing what information is needed, and where as well as how to access it. The first constraint lies in data accessibility and quality. Due diligence relies heavily on information provided by the seller, which may be incomplete or selectively disclosed. Therefore, it is not reliable enough to blindly only lean on financial statements, since some of them are performed with low-quality or prepared inconsistently (Perafán-Peña et al., 2024). This imposes difficulties for the buyer to evaluate possible synergies, since presented documents may include bias.

The second restriction concerns time and resource limitations. M&A transactions usually operate under a tight schedule, and competitive bidding can further constrain the depth of the analysis. As a result, some issues may remain undetected (Kastrup et al., 2025).

The last fundamental limitation relates to information asymmetry between the buyer and the seller. Even after a comprehensive financial due diligence process, residual uncertainty remains, and information asymmetry cannot be fully eliminated. Especially off-balance sheet arrangements or sudden changes in the market conditions cannot be fully anticipated (DePamphilis, 2021). This reinforces the importance of using contractual safeguards even after performing due diligence.

2.2.4 Due Diligence in Deal Structuring

Since all uncertainty cannot be eliminated by conducting due diligence, other risk reducing mechanisms should also be applied in M&A deal structuring. Two of the most common practices are escrow and earn-out arrangements.

In earn-out deals, a part of the purchase price will be defined by future performance milestones. This structure mitigates valuation disputes when future cash flows are uncertain (Dahlen, 2024). Earn-out arrangements are especially used in industries with volatile revenues, such as technology, where information asymmetry is high.

An escrow is a contractual arrangement where a portion of the acquisition's price is placed with a third party, such as a bank or a law firm, for an agreed period. These funds are released back to the seller at the end of the period if no underlying liabilities or breaches of contract have been discovered (O'Neil, 1986).

Both earn-out and escrow mechanisms are contractual tools to deal with residual risks left after due diligence process. They are extensions of due diligence in the M&A risk control process. Findings from due diligence often inform the design of these safeguards, strengthening the buyer's position and ensuring that any uncovered uncertainties are financially accounted for.

2.3 Discounted Cash Flow Model

The discounted cash flow model is one of the most theoretically grounded valuation methods in corporate finance. Enterprise Value (EV) estimated using the DCF model is directly linked to the empirical part of this thesis, where EV/EBITDA is the observed multiple. Valuation methods are extremely sensitive to key variables, and they are a typical target for manipulation. This is where due diligence is needed, since it examines and tests if the variables are reliable and reflect a company's financial state accurately (Vayas-Ortega et al., 2020). The discounted cash flow model is based on the principle that the value of a company is equal to the present value of its expected future cash flows, discounted at a rate that reflects both the risks associated with the cash flows and the time value of money.

2.3.1 Core Principals of the DCF Model

The discounted cash flow model relies on two principal financial concepts: time value of money and risk-adjusted discounting. Capital Asset Pricing Model (CAPM), Weighted Average Cost of Capital (WACC) and Modigliani and Miller (1959) propositions are the foundations of the DCF model, and they explain why future cash flows must be discounted and how to appropriately determine the discount rate. Modigliani and Miller demonstrated that a firm's value depends on the risk of underlying assets rather than capital structures, which puts emphasis on the accurate discount rate and future cash flows.

Fisher (1954) introduced the classical economic theory of time value of money. Cash flows today are more valuable than the same amount in the future because of the earning potential money has. This compensation for delaying consumption justifies the future cashflow being discounted to present value. Valuation must, in addition to time passing, reflect the uncertainty of future cash flows. Modern portfolio theory (Markowitz, 1959) introduces risk-return trade-off and stresses that investors are

risk-averse and require higher expected returns from carrying additional risk. Investors are willing to invest only if the risk of the investment is being accounted for. This risk will be applied in the DCF model through the discount rate.

CAPM and WACC are two key frameworks that provide the basis for determining the discount rate. Capital Asset Pricing Model defines the expected return on equity (r_e) and is based on the relevance of systematic risk in determining required returns (Sharpe, 1964; Lintner, 1969). This cost of equity estimate is then used to determine the discount rate in the DCF model using Weighed Average Cost of Capital. WACC provides the relevant discount rate by taking into consideration that cost of equity and debt differentiate from each other and their relative contribution in the firm's capital structure matters.

2.3.2 Free Cash Flow Forecasting

Another active factor in the DCF model is free cash flow (FCF). FCF refers to assets that can be used to cover debt or pay equity holders (Vayas-Ortega et al., 2020). It represents all the cash available after covering operating expenses, taxes, reinvestment needs and capital expenditures (McKinsey and Company, 2015). The greater free cash flow a company has, the higher the valuation results will be. This can motivate management to manipulate numbers to present a higher enterprise value.

Free cash flow is obtained by reducing taxes, capital expenditures and working capital from EBITDA. Earnings before interests, taxes, depreciations and amortizations is derived from income statements. Capital Expenditures (CapEx) are measured by historical basis, observing past investments but the variable in the equation is an estimate and therefore is exposed to under or over valuation. Underestimating capital expenditures can lead to overestimated cash flows which can cause overvaluation of the whole firm's (Damodaran, 2012). Working capital (WC) can be calculated from variables expressed in the balance sheet. Nevertheless, it is necessary to consider expected changes in receivables and payables for the variables to present as close of a picture of reality as possible (McKinsey and Company, 2015).

Free cash flows are usually estimated 5-10 years ahead. This is a period where free cash flows can be estimated most accurately, and future deals and investments influencing free cash flows have been made. These individually estimated yearly cash flows will be discounted in the DCF model to represent their value in present time.

Estimating free cash flow is an extremely sensitive step in the DCF model. Forecasts may involve managerial bias and overly optimism which due diligence practitioners will further investigate. Due

diligence findings will help validate inputs, but forecasting will always involve assumptions about growth, profitability and reinvestment which brings risk into valuation.

2.3.3 Discount Rate and Risk Adjustments

Both time value and riskiness of the firm's future succession must be reflected on the discount rate applied in the DCF model. Investors are requiring compensation for delaying their consumption and bearing risk. Choosing an appropriate discount rate is essential to ensure a reliable and accurate valuation result. Standard practice for DCF valuations is to use CAPM for estimating the price of equity for the firm (r_e) and WACC as the discount rate.

The discount rate is affected by the equity to debt ratio, cost of equity, cost of debt and corporate tax rate. Capital structure weights can be miscalculated if book values are used instead of market values, causing the discount rate to be misleading and valuation to be non-accurate. In the CAPM model, cost of equity (r_e) is the variable that is most prone to mistakes in evaluation. (Fama and French, 1997.) Risk-free rate (r_f) should be derived from long-term government bonds instead of short-term T-bills (PwC, 2023). Beta (β) variable is prone to misestimation by relying on peer-betas, ignoring leverage effects or using only raw historical beta (Fama and French, 1997).

Even though Capital Asset Pricing Model and Weighed Average Cost of Capital form the theoretical foundation for discount rate, additional adjustments regarding risk are usually added to avoid adverse overvaluation. While due diligence process reveals the majority of information relevant to assessing risk, certain residual risks remain outside its scope and requires additional management measures. Factors such as customer concentration, poor governance or supplier dependency may affect the discount rate applied in the valuation, by making the firm's operations more riskier (McKinsey and Company, 2015). Additionally, Fama and French (1993) have studied the CAPM model and tested its accuracy. These empirical studies proved that returns predicted by CAPM on small-cap firms were systematically lower than the actual returns they achieved, partly due to their greater cash flow volatility and restricted access to capital relative to large firms. M&A practitioners often add a size premium to the cost of equity when valuating smaller firms to achieve a more accurate discount rate.

Thus, risk adjustments play a significant role in valuation and can affect the results considerably. Although it is important to acknowledge all risk factors, the risk should neither be overestimated. When adding risk adjustments based on information gathered during due diligence it is crucial to be sure not to double count risks that are already taken into consideration in the CAPM model.

2.3.4 Terminal Value

DCF valuation divides forecasting into two stages. First, near future cash flows will be forecasted and discounted to present time. After this, analysts will estimate a terminal value that presents all future cash flows beyond the near future cash flow estimations. Terminal value plays a crucial role since it often accounts for 50-70% of the total DCF valuation (Damodaran, 2012). Consequently, even minor changes in the underlying assumptions may have a notable impact on the overall valuation outcome.

The terminal value is commonly estimated with Gordon's growth model (1959) where free cash in the first year beyond the forecast horizon flow (FCF_{n+1}) is divided with the difference between the discount rate (r) being WACC and the perpetual growth rate (g).

The core challenge with this model is its susceptibility towards the estimated growth rate. Even minor changes in the expected future growth rate can lead to considerable alterations in the valuation outcomes. Prior studies regarding terminal value estimations have expressed that irregular revenues, capital expenditures and free cash flows challenge the conjecture of a firm long-term growth rate being a reliable variable in the DCF model (Behr et al., 2018). This sensitivity underlines the relevancy of a thorough due diligence process to ensure that all possible bearings underlying cash flow forecasts are accounted for.

2.3.5 Limitations of DCF Model

Despite the strong theoretical foundation of the DCF model, it has several relevant limitations that reduce its reliability in practice. This is primarily due to the model's heavy reliance on forecasts, sensitivity assumptions and the dominant influence on the terminal value. In practice, estimating future cash flows and adjusting the discount rate to fully capture all relevant risk factors is challenging. Empirical evidence shows that practitioners frequently rely more on using multiples such as EV/EBITDA as a valuation method (McKinsey and Company, 2015). Since the DCF model ultimately expresses the enterprise value (EV) it is evident that the EV/EBITDA multiple is driven by the same underlying determinants of firm value. Multiples are widely adopted in practice because they capture the core drivers of firm value identified in the DCF framework while enabling analysts to benchmark valuations more efficiently across the industry.

2.4 How Due Diligence Maps into Valuation Variables

Financial due diligence findings are directly influencing the determining factors behind the DCF valuation model, which lies the foundation for a firm's valuation. As the DCF model perceives firm

value based on present value of expected future cash flows, it is evident that growth expectations, operating margins, reinvestment volume and the discount rate are some of the main drivers concerning the outcome. This conceptual mapping will clarify why these appointed financial due diligence findings are expected to shape the valuation multiples used in M&A settings. The proxies formulated for the empirical part are all linked to at least one of these expected DCF channels.

High revenue volatility reduces the predictability of future growth and increases the risk associated with cash flows. This uncertainty uncovered during due diligence signals unstable demands which affects the buyer's reflection on the company's value. Lower terminal growth assumptions and higher discount rates are therefore plausible, leading to lower valuation outcomes (Damodaran, 2012).

A large working capital position indicates that more cash is required for reinvestments, weakening the proportion of free cash flow. The greater the reinvestment needs, the less capital remains for owners, causing acquirers to apply lower valuation multiples. On the contrary, efficiently managed working capital enhances liquidity and drives the valuation multiple higher (Palepu, 2020).

Sustainability of operating cash flows illustrates the underlying quality of profitability. Persistent cash flows reflect strong margins and reduce uncertainty embedded in operations, which is perceived through lower discount rates (Howson, 2017).

2.5 Research Hypotheses

The following research hypotheses are created based on the frameworks of agency theory, information asymmetry and the empirical literature on due diligence and valuation. These hypotheses are formulated for the empirical testing to give a broad understanding about the significant factors regarding valuation. Prior research suggests that financial due diligence indicators such as revenue volatility, working capital efficiency and cash flow sustainability are influencing firm valuations. However, the empirical evidence remains limited in regard to how these factors are directly affecting valuation multiples in M&A. To address this gap, the following hypotheses are proposed:

The first hypothesis is related to revenue volatility, since unstable revenues demonstrate an alarming signal for the buyer as perceived risk grows:

H1: Revenue volatility has a negative effect on the valuation multiple $\ln(EV/EBITDA)$ due to higher cash-flow risks

The second hypothesis is regarding working capital. Free cash flow allows financial flexibility and especially in M&A it demonstrates lower operational risk. In addition, it is evident that as a key driver of the DCF model, lower free cash flow produces higher working capital, which is associated with weaker enterprise values:

H2: Higher working capital is negatively associated with $\ln(EV/EBITDA)$ because cash tied up in operations lowers free cash flow

The last hypothesis is formed to test cash flow sustainability, since any form of risk reduces the valuation multiple $EV/EBITDA$, and here the risk is expressed through cash flow sustainability:

H3: Cash flow sustainability has a positive effect on $\ln(EV/EBITDA)$ since consistent cash generation reduces risk and improves the quality of earnings

3 Methodology and Data

The empirical part of this thesis examines quantitatively how financial due diligence findings influence valuations outcomes in mergers and acquisitions. This analysis complements the theoretical framework by empirically testing how several due diligence findings affect the final valuation results and decision-making in transactions. While the theoretical section emphasized the conceptual role of due diligence in mitigating information asymmetry and agency problems, the empirical analysis seeks to provide measurable evidence of these effects in practice.

To achieve this, the study applies the ordinary least squares (OLS) regression framework that is used to understand the connection between various due diligence findings, such as revenue volatility, working capital and cashflow sustainability, and valuation multiples, particularly EV/EBITDA. This approach provides a quantitative means to evaluate the relationship between variables identified through due diligence and valuation outcomes.

3.1 Sampling and Data

The empirical analysis is based on a sample of mergers and acquisitions transactions completed between 2009 and 2025. All data was retrieved from the Bloomberg database, which provides verified financial information for publicly listed companies. The sample includes only those transactions in which the acquired companies had at least five years of publicly available financial statements prior to the acquisition. This criterion is required to calculate revenue volatility, which is one of the main independent variables. Financial data was collected from the fiscal year preceding the M&A announcement year to avoid potential distortions caused by the transaction itself.

The sampling process was conducted by combining Bloomberg's *Equity Screening (EQS)* and *Mergers & Acquisitions (MA)* functions to ensure that the dataset was consistent and contained all necessary financial information for each firm. First, publicly listed companies operating in the technology, retail, industrial, media and healthcare sectors were identified using the *EQS* function, applying a filter for positive EBITDA to include only firms with operating profitability. This filter is necessary as the dependent variable of the natural logarithm of EV/EBITDA is undefined when being negative. The mentioned five sectors were chosen to ensure that the dataset was diverse and suitable for academic research. These firms were cross-checked with completed M&A transactions between 2009 and 2025 using the *MA* function.

The firms with adequate financial information available were then selected manually. Data on revenue was one of the essential aspects to verify when constructing the final sample. The five-year revenue period was chosen to capture medium-term performance variation since prior M&A valuation research is consistent with this period for observing revenue volatility (Wangerin, 2019). To limit the influence of extreme outliers and ensure that the regression results were not driven by abnormal volatility, firms with tail observations were manually identified and excluded from the sample along with firms exhibiting missing revenues. Additional winsorization on operating cash flow was performed to ensure that the regression results were not driven by extreme outliers or negative measures. Finally, a sample of 50 companies was established, providing a consistent and robust dataset for the regression analysis.

All financial data for each company was collected using Bloomberg's *Financial Analysis (FA)* function, which included all key financial statement and valuation data required. The data collection process focused on the fiscal year preceding the M&A announcement year to avoid inclusion of transaction effects. Specifically, the dataset consists of enterprise value (EV), EBITDA, EBIT, revenue from five years prior to the announcement year, current assets, current liabilities, operating cash flow, total debt, total assets and market capitalization.

3.2 Variable Definition

Regression analysis aims to examine the relationship between the dependent and independent variables. In the model applied in this thesis, the dependent variable $\ln(\text{EV}/\text{EBITDA})$ is calculated by hand, extracting EV and EBITDA separately from Bloomberg terminal. This method is urged for empirical research as it ensures the consistency of timing and definitions of the variables across companies and industries. By taking the natural logarithm, the distribution becomes closer to normal as multiples are skewed. Enterprise value (EV) represents the sum of market capitalization, total debt, preferred equity and minority interests subtracted with cash and cash equivalents and as a market-based variable, it is reported as the end of the fiscal year standard. EBITDA reflects trailing twelve-month (TTM) operating earnings, representing the firm's most recent twelve months of operating performance. This ensures that EV and EBITDA, both used to retrieve the dependent variable in the regression model, measures refer to the same economic point of time. Since multiples, like EV/EBITDA, are commonly used by practitioners and the DCF model is more of a theoretical framework, the regression model will be more reliable when applying the multiple as the dependent variable.

The independent variables represent the financial due diligence findings and are expected to influence the company's valuation outcome. These following independent variables were chosen based on prior literature identifying them as core subjects of evaluation in due diligence. Their selection was also influenced by data availability, since more specific due diligence metrics, such as customer concentration, are not publicly accessible. The first proxy is revenue volatility, which measures the stability of the firm's revenue. Additional risk regarding future operations is introduced if revenues appear to be heavily volatile, diminishing the valuation multiple EV/EBITDA. Revenue, as a market-based variable, projects trailing twelve-month operating earnings and is calculated by taking the standard deviation from revenues over five years prior to the deal announcement year and dividing them with the mean of these revenues, as shown in:

Equation (1):

$$\text{Revenue Volatility} = \frac{\text{StdDev}(\text{revenue})_{t-5:t-1}}{\text{Mean}(\text{revenue})_{t-5:t-1}}$$

Working capital can be seen as a measure of how efficiently a firm manages their assets and liabilities. Insufficient working capital can be a signal for liquidity problems. If due diligence reveals that inventory is excessive or receivables are slow, it will appear as inflated or large working capital measures. As working capital is used to derive free cash flow, also used in the DCF model, it affects the EV/EBITDA multiple by lowering the valuation outcome. The higher the working capital is, the more cash is tied up in operations leaving less free cash available for investors. In this study, current assets and current liabilities are retrieved from Bloomberg's *Balance Sheet* tab, and working capital is scaled by revenue to make comparability across sectors and firms reliable, as shown in:

Equation (2):

$$\text{Working Capital} = \frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Revenue}}$$

Sustainable cash flow is an indicator that the firm's financial situation is well managed, which is also assessed during the due diligence process. Greater cash flow sustainability is associated with higher valuation multiples. Both EBIT and operating cash flow reflect trailing twelve-month (TTM) operating earnings to yet again ensure consistency of time.

Equation (3):

$$\text{Cah Flow Sustainability} = \text{Operating Cash Flow/EBIT}$$

In addition to dependent and independent variables, the regression model includes control variables. These account for firm-level characteristics that influence the other variables. By including control variables, the regression analysis expresses the contribution of due diligence on its own (earnings quality, revenue volatility, working capital) rather than having other factors influencing the model's outcome. The control variables used in the regression model are firm size, leverage, Tobin's Q, industry dummies and year dummies.

The first control proxy is the natural logarithm of total assets, which represents the size of a firm. The next one is leverage, which is the total debt to total assets ratio, where both measures are standardized. Tobin's Q indicates a firm's growth opportunities and expresses if the firm is over or under valued by the market. This is measured following Chung and Pruitt (1994) as the ratio of market value of equity plus total liabilities to total assets, as shown in:

Equation (4):

$$Tobin's\ Q = \frac{Market\ Value\ of\ Equity + Total\ Liabilities}{Total\ Assets}$$

The last two proxies are the dummy variables which are included to capture systematic differences in valuation outcomes across different industries and economic cycles over the years. The healthcare sector was defined as the base industry and year 2009 was specified as the reference year in the regression model. Finally, all monetary values are expressed in U.S. dollars to ensure comparability across firms and industries.

3.3 Methodology

This thesis will apply the Ordinary Least Squares (OLS) regression framework, which is a widely used method in financial research. Regression analysis is an appropriate method to evaluate the statistical relationship between financial characteristics of target firms and the valuation multiple observed in M&A deals. The regression estimates the conditional expectation of the dependent variable as a linear function of the independent variables, under the assumptions of imperfect multicollinearity and exogeneity (Stock et al., 2020).

Previous studies have demonstrated that the estimators produced by the ordinary least square method are best linear unbiased estimators (BLUE). The OLS method determines the regression coefficients by minimizing the sum of squared residuals, ensuring that the predicted values are as close as possible to the observed data points (Dougherty, 2007). The model used in this thesis is

formed by evaluating the principal factors regarding a firm's valuation founded on the DCF model and building the regression model based on those variables. The regression model is:

Equation (5):

$$\begin{aligned} \text{LN}(EV/EBITDA)_i &= \alpha + \beta_1 \text{REVVOL}_i + \beta_2 \text{WORKCAP}_i \\ &+ \beta_3 \text{CFSUSTW}_i + \gamma_1 \text{SIZE_LN}_i + \gamma_2 \text{LEVERAGE}_i + \gamma_3 \text{TOBINQ}_i \\ &+ \sum_{j=1}^{J-1} \delta_j \text{INDUSTRY_FE}_{ij} + \sum_{t=1}^{T-1} \theta_t \text{YEAR_FE}_{it} + \varepsilon_i \end{aligned}$$

The primary focus of this study is on the coefficients (β_n) of the financial due diligence findings, which illustrate how risks revealed during due diligence are associated with the valuation multiple, linking the results to the foundational DCF valuation model. These coefficients are tested using the t-test and the significance of the overall model is evaluated using the F-test. A coefficient is statistically significant if the p-value is less than 0.05. In this case, the null hypothesis of no statistical significance is rejected. On the contrary, the null hypothesis cannot be rejected if the p-value is greater than 0.05. This implies that $\beta=0$ and the coefficient is not statistically significant. The standard benchmark is to use a 5% significance level, which will be implied in this study as well (Wooldridge, 2020).

The first variable of the regression model is α and it represents the constant term. β_n 's are the coefficient terms and γ_m 's are the control variables. ε_i is the error term which captures the difference between the observed value and the estimated value. Assumptions regarding the error term for the ordinary least squares estimators are strict and must hold for the results to be unbiased and consistent. The error term should be independent and uncorrelated with the other variables. The model expects homoscedasticity which means that the error term is constant in variance across all observations. Statistical independence is also assumed which refers to previous errors not affecting future ones. This in other words means that there should not appear any autocorrelation in the error term (Dougherty, 2007). The regression model applied the classical OLS standard errors (SE) since the Breusch-Pagan test demonstrated that errors are homoscedastic. The assumption of normal distribution is not critical in this case due to the Central Limit Theorem, which introduces that the distribution of the sample mean approaches normality as the sample size grows (Wooldridge, 2020). Using a sample size of $n > 30$ will be enough to accept that the sample is normally distributed, which is reached in the data used.

4 Results

This chapter will present the results obtained from the regression analysis. The study examines how findings identified in financial due diligence affect valuation outcomes. The statistical test assessed whether revenue volatility, working capital and cash flow sustainability are affecting the valuation multiple EV/EBITDA, hereby influencing the DCF models assumptions. If the null hypothesis can be rejected, the coefficient is statistically significant meaning it is influencing the valuation multiple. On the other hand, the null hypothesis will be accepted if the coefficient does not have a statistically detectable effect at the level of 5%. The sample size being relatively small, consisting of 50 firms, does have an effect on the results of the analysis by them being somewhat bias, which has to be considered when interpreting the results.

4.1 Descriptive Statistics and Correlation Matrix

Table 1 presents descriptive statistics to summarize the key characteristics of the sample firms. The variable of cashflow sustainability was winsorized at the 5th and 95th percentiles to reduce the effects of extreme outliers in the variable. The kurtosis of leverage is also heavily tailed to the right which required additional robustness tests. Leverage was also winsorized at the 5th and 95th percentiles, but the regression analysis run with the winsorized leverage variable expressed more unstable results. Hence, the model used in the final regression analysis includes cashflow sustainability as the only winsorized variable. The descriptive statistics of the winsorized as well as the non-winsorized variables can be found in Appendix 2.

Table 1. Descriptive Statistics

Variable	Mean	Median	Max	Min	Std. Dev	Skewness	Kurtosis
<i>LN(EV/EBITDA)</i>	2.625	2.548	5.291	1.398	0.814	1.516	2.736
<i>REVVOL</i>	0.198	0.135	0.802	0.022	0.174	1.456	1.879
<i>WORKCAP</i>	0.281	0.165	1.450	-0.197	0.367	1.337	1.598
<i>CFSUSTW</i>	1.030	1.150	2.242	-2.055	0.982	-1.761	3.421
<i>SIZE_LN</i>	8.893	8.765	11.458	5.091	1.432	-0.213	-0.552
<i>LEVERAGE</i>	0.334	0.246	4.065	0.000	0.563	5.805	35.698
<i>TOBINQ</i>	2.449	2.205	9.660	0.495	1.640	1.994	5.662

Variable definitions are provided in **Appendix 1**. Working capital is scaled by revenue to ensure comparability across firms. Cash flow sustainability is winsorized at the 5th and 95th percentiles to reduce the influence of extreme outliers. All financial data refer to the fiscal year prior to the acquisition announcement to avoid potential deal-related bias.

The correlations of the independent and control variables are presented in Table 2. Although some statistically significant correlation occurs, it does not impose concern as the correlation of any variable doesn't exceed the common threshold of 0.7. The correlations between the dependent variable, EV/EBITDA, and the independent variables being statistically significant is in line with the

expectations of strong growth potential indicating greater valuation multiples and firms with weaker cash flow conversion being valued lower.

Table 2. Correlation Matrix

Variable	<i>REVVOL</i>	<i>WORKCAP</i>	<i>CFSUSTW</i>	<i>LEVERAGE</i>	<i>TOBINQ</i>	<i>SIZE_LN</i>	<i>LN(EV/EBITDA)</i>
<i>REVVOL</i>	1.000						
<i>WORKCAP</i>	0.069*	1.000					
<i>CFSUSTW</i>	-0.253	-0.092	1.000				
<i>LEVERAGE</i>	-0.058	-0.230	0.043	1.000			
<i>TOBINQ</i>	0.358	0.317**	-0.147	0.109	1.000		
<i>SIZE_LN</i>	-0.156	-0.156	0.050	0.282**	-0.380	1.000	
<i>LN(EV/EBITDA)</i>	0.299**	0.308**	-0.400***	-0.186	0.633	-0.286**	1.000

Variable definitions are provided in **Appendix 1**. Working capital is scaled by revenue to ensure comparability across firms. Cash flow sustainability is winsorized at the 5th and 95th percentiles to reduce the influence of extreme outliers. All financial data refer to the fiscal year prior to the acquisition announcement to avoid potential deal-related bias. ***1% level, **5% level, and *10% level, respectively.

4.2 Regression Model Fit and Significant Variables

The multiple linear regression model was estimated using the OLS method. This method provides best linear unbiased estimators under the assumptions of linearity, homoscedasticity and no autocorrelation or multicollinearity. The regression model was tested for these assumptions to ensure the robustness of the results. Linearity of residuals was confirmed by applying a graphical diagnostic where no significant form of systematic pattern was detected. Homoscedasticity was evaluated with the Breusch-Pagan test. The results indicated that the null hypothesis of the constant variance could not be rejected, the p-value being $p > 0.05$. The Durbin–Watson test showed no autocorrelation between the residuals ($p > 0.05$), confirming their independence. Lastly, multicollinearity was tested using the Variance Inflation Factor (VIF). The results indicated that explanatory variables are not highly correlated. This interpretation was based on the generalized VIF, which is used when the regression model includes categorical variables with more than one degree of freedom, allowing comparison between categorical dummies and numerical predictions. The maximum adjusted VIF was observed as the proxy “*SIZE_LN*” at 1.729 and the mean of the sample was 1.424, while the value being $VIF < 2$ indicates low correlation. The results of all of these tests aligned with the OLS assumptions, which suggests that the model provides unbiased parameter estimates. The full statistical outputs of the diagnostic tests are presented in the Appendices.

The overall regression model presented in Table 3. confirms that the model is statistically significant, implying that the explanatory variables influence the dependent variable. R^2 being 0.740 indicates that approximately 76.0% of the variation in the multiple EV/EBITDA is explained by the independent variables and control variables. Adjusted $R^2 = 0.511$ (51.1%), which is a correction of

R^2 where the number of explanatory variables is considered, demonstrated considerable power as well. The p-value of $0.002 < 0.05$ expresses that the relationship between the independent and dependent variables is statistically significant. Both the F-test and the R^2 values demonstrate that the regression model is stable, and explanatory variables account for the valuation outcomes.

Table 3. Regression Results for Determinants of Enterprise Value (Dependent Variable: $\ln(\text{EV}/\text{EBITDA})$)

Variable	Coefficient	Std. Error	t-statistic	p-value
<i>REVVOL</i>	0.311	0.738	0.422	0.68
<i>WORKCAP</i>	-0.075	0.315	-0.240	0.81
<i>CFSUSTW</i>	-0.180	0.108	-1.660	0.11
<i>SIZE_LN</i>	0.097	0.098	0.995	0.33
<i>LEVERAGE</i>	-0.477**	0.203	-2.242	0.03
<i>TOBINQ</i>	0.333***	0.071	4.654	<0.01
<i>Intercept</i>	0.389	1.306	0.298	0.77
INDUSTRY_FE			YES	
YEAR_FE			YES	
N			50	
R^2			0.740	
Adj. R^2			0.511	
F-stat			3.228***	

Variable definitions are provided in **Appendix 1**. Working capital is scaled by revenue to ensure comparability across firms. Cash flow sustainability is winsorized at the 5th and 95th percentiles to reduce the influence of extreme outliers. All financial data refer to the fiscal year prior to the acquisition announcement to avoid potential deal-related bias. ***1% level, **5% level, and *10% level, respectively.

The test demonstrates that the main independent variables were not statistically significant ($p > 0.05$), which implies that they had no statistically detectable effect at the 5% level in this sample. The null hypotheses of the three hypotheses formulated earlier are failed to reject. Even though revenue volatility, working capital and cash flow sustainability are relevant in due diligence analyses, this limited sample does not show that they have quantitative effects on valuation outcomes. The influence of these coefficients is most likely more qualitative, where the insights are not captured in numerical models like OLS.

The regression model presents that Tobin's Q at the 1% level, leverage at the 5% level and technology industry weakly at the 10% level are statistically significant factors regarding the valuation multiple EV/EBITDA. The positive and highly significant coefficient of Tobin's Q ($\beta=0.333$, $SE=0.071$, $p<0.01$) supports its interpretation as a proxy for growth opportunities and market optimism. These are positive signs for the firm, which explains why the multiples are also valued higher. This finding aligns with Brainard and Tobin (1968) who argue that firms with greater growth potential trade at higher market valuations relative to their replacement costs. Hence, greater Tobin's Q measures are associated with higher EV/EBITDA multiples due to growth expectations.

The negative relationship between leverage ($\beta=-0.477$, $SE=0.203$, $p=0.03$) and EV/EBITDA aligns with Myers and Majluf's (1984) corporate finance theory which suggests that high leverage may signal limited funds or financial stress. In the DCF model, risk is included in the discount rate. The higher the discount rate, the lower the valuation result will be. The theory behind valuation and the DCF model aligns with the empirical test results where higher leverage, causing higher risk, leads to lower valuation outcomes (EV/EBITDA).

Lastly, the positive and weakly significant technology industry dummy ($\beta=0.671$, $SE=0.333$, $p<0.1$) indicates that firms operating in the technology sector are valued more highly compared to firms in other industries. Prior research supports that higher multiples in the technology industry are due to strong growth potential and intangible asset driven business models (McKinsey and Company, 2015). By having a rather low tangible asset base, return on invested capital is higher which appeals to investors. This can be detected by the EV/EBITDA multiple being greater. Moreover, in the DCF model this could appear as higher growth assumptions, which affects the terminal value and finally the whole valuation outcome being higher.

4.3 Discussion on Non-Significant Due Diligence Variables

Even if the regression analysis did not find evidence that financial due diligence has a statistically significant effect on valuation, it doesn't mean that due diligence findings are irrelevant to valuation outcomes. Financial due diligence aims to detect risks, confirm that the valuation assumptions are accurate and verify the financial health of the target company. The input of due diligence findings is rather diagnostic than determinative regarding valuation. Decision quality and deal transparency can be improved by conducting thorough due diligence. This impact does not necessarily emerge through valuation models, such as DCF, even though due diligence plays a critical role in achieving fair pricing. Additionally, alternative empirical approaches such as matched acquirer-target datasets were considered but rejected due to data availability.

Due diligence informs decision makers and reduces information asymmetry rather than directly changing the valuation outcomes (Howson, 2017). The empirical results suggest that the value relevance of financial due diligence may not be directly associated with quantitative indicators but rather qualitative mechanisms that form the negotiations of M&A deals. For instance, Damodaran (2012) argues that valuation outcomes in M&A are not solely relying on quantitative financial factors but are a result of a synergy between financial analysis, strategic considerations and negotiation power.

Hence, deal terms and transaction structures rather than the transaction multiple itself are often influenced by due diligence. Inferences made from financial due diligence are typically reflected in contractual mechanisms such as earn-outs, escrow arrangements and warranties. This explains why statistical significance is limited in the quantitative valuation model, even though due diligence plays a critical role in risk allocation of the deal.

Another explanation for why revenue volatility, working capital and cash flow sustainability did not show significant effect is potential measurement errors. These variables act as proxies for complex due diligence findings and may not fully capture all relevant information underlying the assumptions. To illustrate, revenue volatility can be influenced by management decisions, for example large end of the year sales, which introduces noise into measurements.

The findings of this study can be further understood through observing agency theory (Jensen and Meckling, 1976). The independent variables not being statistically significant suggests that financial due diligence may not directly affect the headline valuation multiple EV/EBITDA but instead it serves as a monitoring and verification mechanism to reduce agency costs through the negotiation process. The value of due diligence is gained from facilitating these more informed negotiations and forming the contractual arrangements that align incentives between the two parties.

Finally, the sample size ($n=50$) limits statistical power and makes it difficult to detect subtle and small effects. This can be evaluated through Minimum Detectable Effect (MDE) method which gives the smallest effect the study could detect with the given sample size (Bloom, 1995). The method suggests that the larger the sample size, the smaller and more precise the detectable effects become, which is demonstrated by a small MDE. Thus, given that the sample size is 50, the MDE of this study is relatively large. This implies that only strong effects of due diligence findings on valuation multiples are perceived statistically significant, while weaker relationships may remain statistically undetectable.

Nevertheless, since none of the main independent variables were statistically significant in the initial regression model, additional robustness tests were conducted. First, an F-test for joint significance of these three variables was performed to verify whether the due diligence variables jointly explain variation in valuation multiples or not. The result remained consistent, and the financial due diligence findings did not have a statistically detectable effect at 5% level. The F-statistic of 1.331 with a p-value of 0.29 indicates that the three due diligence variables jointly have no statistically significant impact on valuation. The result of this test is introduced in Table 4.

Table 4. F-test for Joint Significance of Financial Due Diligence Variables

Test description	F-statistic	p-value
H1: Revenue volatility, working capital and cash flow sustainability jointly affect the valuation multiple	1.331	0.29
EV/EBITDA		

Secondly, to test the sensitivity of the results, the model was re-estimated using industry-clustered standard errors. This adjustment ensures that inference is not affected by similarities in risk and valuation within the same sector, since valuation multiples and financial statement characteristics are frequently industry specific. Industry clustering is supported by prior financial research and suggested when conducting cross-sectional valuation research. As expected, clustering produced more conservative standard errors but demonstrated consistency of the relationship between the due diligence variables and the valuation multiple. Revenue volatility and working capital remained insignificant ($p > 0.05$), whereas cash flow sustainability expressed a weak significance at 10%. Tobin's Q and leverage did not, however, appear as significant factors in this model as both of these variables exhibit strong industry level patterns. Importantly, the results remain consistent with standard valuation theory, supporting the relationship between financial risk, growth potential, cash flow quality and valuation outcomes. The limited statistical significance obtained from the clustered inference is driven by sampling uncertainty, rather than errors in the underlying model specifications. The outcome of this clustered standard error robustness test can be found in Appendix 10.

Lastly, the regression model was re-estimated by including only one independent variable at a time while keeping all control variables constant. This illustrates the relationship between the independent variables, the due diligence findings, and the dependent variable, the EV/EBITDA multiple, exclusively. These results are presented in Table 5.

Table 5. Additional Regression Results

Variable	Revenue volatility	Working capital	Cashflow sustainability
	Coefficient	Coefficient	Coefficient
<i>REVVOL</i>	0.764		
<i>WORKCAP</i>		0.002	
<i>CFSUSTW</i>			-0.193*
<i>SIZE_LN</i>	0.161*	0.142	0.090
<i>LEVERAGE</i>	-0.490**	-0.468**	-0.453**
<i>TOBINQ</i>	0.347***	0.355***	0.330***
<i>(Intercept)</i>	-0.579	-0.238	0.498
INDUSTRY_FE	YES	YES	YES
YEAR_FE	YES	YES	YES
N	50	50	50
R ²	0.713	0.700	0.738
Adj. R ²	0.498	0.476	0.541
F-stat	3.314***	3.122***	3.758***

Variable definitions are provided in **Appendix 1**. Working capital is scaled by revenue to ensure comparability across firms. Cash flow sustainability is winsorized at the 5th and 95th percentiles to reduce the influence of extreme outliers. All financial data refer to the fiscal year prior to the acquisition announcement to avoid potential deal-related bias. ***1% level, **5% level, and *10% level, respectively.

The findings of these supplementary regression analyses were consistent with the initial model – none of the main independent variables were statistically significant at the 5% level. Nevertheless, cash flow sustainability did show a weak significance at 10% when this due diligence variable was examined individually. This result is uniform with the valuation framework of the DCF model which unites stable cash flows with lower risk and therefore higher firm value, that being the EV/EBITDA multiple. However, as the significance was not detected when combining all three due diligence variables simultaneously, the significance Table 5. is showing is partly caused by multicollinearity and influenced by reduced overlapping. When investigating these variables independently, the proxy of year 2021 showed minor significance at the 10% level. This indicates that transactions executed the following year demonstrated systematically higher valuation levels. This aligns with the market effects of the COVID-19 pandemic, which disrupted earnings, caused uncertainty and interfered with discount rates, thereby affecting the EV/EBITDA multiples.

Leverage, Tobin's Q and the technology industry remained statistically significant across all model specifications, reinforcing the model's internal consistency and robustness. Moreover, the p-values of the whole regression models being lower or approximately the same compared to the baseline model suggests stronger statistical relationships and confirms the overall stability and suitability of the regression framework.

5 Conclusions

The objective of this thesis was to examine the causal relationship between various financial due diligence findings and valuation outcomes in mergers and acquisition transactions. This study was justified by the lack of empirical research connecting explicitly due diligence and valuation outcomes. Since M&A transactions concern more than 3 trillion U.S. dollars on a yearly basis, the relevance of transactions priced accurately at market value is not to be stressed in excess. Due diligence serves as a tool to gather information and validate firms' financial figures to confirm that valuation errors wouldn't occur. This can be justified through information asymmetry theory which explains how at worst the markets could crash due to information not being equally distributed among market participants. The literature review at the start of this thesis highlighted the great significance the due diligence process holds in mitigating excess costs and ensuring that expected synergies post-transaction would be achieved. This part granted the reader with an understanding of what due diligence is and how it is used to diminish risk and navigate towards more transparent deal terms.

The methodology part was conducted using the regression framework, which provided a quantitative approach to evaluate the effects of financial due diligence. The three hypotheses of revenue volatility, working capital and cashflow sustainability influencing valuation outcomes, the EV/EBITDA multiple, could be rejected based on the regression results. These variables had no statistically detectable effect at the 5% level in this sample, implying that quantitative effects were not significant.

The explanations behind this result were discussed to gain a comprehensive understanding of why due diligence, based on the literature review, is still stressed as a vital part of the M&A process and further assures that the deal prices present a true and fair picture of the firm. The result could be justified by financial due diligence findings affecting more qualitative aspects such as escrow and earn-out deal terms. This emphasizes the role of due diligence being a tool to gather information and using it as negotiation power rather than the findings directly headlining the valuation multiples.

Next, a couple of interesting, practical implications derived from the outcome of this study will be presented. Performing financial due diligence is not conducted by only examining numbers, which is supported by the results of this thesis. Qualitative adjustments are highlighted since the quantitative effects did not show statistical significance. In essence, analysts should consider qualitative adjustments alongside multiples when evaluating if a firm is accurately valued. Management reliability and customer concentration are some qualitative insights that should be considered when

interpreting valuation multiples. Acknowledging these would verify the valuation outcome and enable the results to include both measurable financial performance and a more extensive risk exposure.

Additionally, due diligence findings should be considered to improve post-acquisition transition. Any risks or inconveniences uncovered during the process enables a more accurate performance monitoring post-acquisition. Since most M&A transactions don't reach the intended outcome, a comprehensive integration plan implemented by the findings of due diligence could mitigate the problem of deals not performing as impressively as planned.

Regarding valuation, due diligence can be seen as a literal value creating tool. The due diligence process aims to achieve a holistic picture of the target company and achieve an understanding of which synergies are possible to reach through the acquisition. Underlying issues as well as hidden possibilities are revealed during this process. In the end, it is possible that due diligence analysts detect growth possibilities which drive the target companies' valuation upwards.

The result of this study makes further research on this topic encouraged. The proxies used to investigate the impact of due diligence should be richer and capture due diligence findings more precisely. Customer concentration and working capital adjustments in share purchase agreements (SPA) would be suitable indicators of financial due diligence to use in future research in order to better capture the qualitative effects of the findings. Top 3–customer share would disclose how dependent a firm is on its 3 largest customers. This could be measured by dividing the sum of the 3 largest customers annual revenue with the target firm's total annual revenue. The higher the result, the more dependent the firm is on these three customers, making the risk of the firm's operations higher. Working capital adjustments in SPA ensure that the deal negotiations are based on a normalized level of working capital. When due diligence detects overstated working capital, the buyer can negotiate a lower normalized level of working capital, which can be seen in a decreased valuation outcome. The most reliable way to measure this would be to scale net working capital (agreed) subtracted from net working capital (actual) by enterprise value. Usually, this information is only presented in sealed reports, which cannot be accessed by outsiders. Therefore, another way to measure it would be subtracting $(NWC/sales)_{t-1}$ from $(NWC/sales)_{t+1}$ where changes in net working capital (NWC) before and after the deal are being observed. If the outcome is negative, it means that the target firm had excess working capital and the acquisition price should have been higher.

Secondly, expanding the sample size would enhance robustness, since the current dataset existing of 50 companies restricts the explanatory power and generalises the result. Lastly, future studies

should focus on the acquirer's perspective and employ matched acquirer-target datasets to examine the relationship between both parties' characteristics and valuation outcomes as well as deal performances. Incorporating the acquirer's strategic fit, financing conditions and previous acquisition experience would be an interesting and considerable angle for future research.

References

- Akerlof, G. A. (1970). The Market for “Lemons”: Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500. <https://doi.org/10.2307/1879431>
- Behr, A., Mielcarz, P., & Osiichuk, D. (2018). Terminal value calculation in dcf valuation models: An empirical verification. *E-Finanse*, 14(1), 27–38. <https://doi.org/10.2478/fiqf-2018-0003>
- Bhagwan, V., Grobbelaar, S. (Saartjie), & Bam, W. (2018). A Systematic Review of the Due Diligence Stage of Mergers and Acquisitions: Towards A Conceptual Framework. *South African Journal of Industrial Engineering*, 29(3), 217–234. <https://doi.org/10.7166/29-3-2061>
- Bloom, H. S. (1995). Minimum Detectable Effects: A Simple Way to Report the Statistical Power of Experimental Designs. *Evaluation Review*, 19(5), 547–556. <https://doi.org/10.1177/0193841X9501900504>
- Boisjoly, R. P., Conine, T. E., & McDonald, M. B. (2020). Working capital management: Financial and valuation impacts. *Journal of Business Research*, 108, 1–8. <https://doi.org/10.1016/j.jbusres.2019.09.025>
- Brainard, W. C., & Tobin, J. (1968). Pitfalls in Financial Model Building. *The American Economic Review*, 58(2), 99–122.
- Chung, K. H., & Pruitt, S. W. (1994). A Simple Approximation of Tobin’s q. *Financial Management*, 23(3), 70–74. <https://doi.org/10.2307/3665623>
- Dahlen, N. (2025). Earnouts in mergers and acquisitions: a systematic literature review of a contingent payment mechanism: Earnouts in mergers and acquisitions: a systematic. *Management Review Quarterly*, 75(3), 2107–2146. <https://doi.org/10.1007/s11301-024-00429-w>
- Damodaran, A. (2012). *Investment valuation: Tools and techniques for determining the value of any asset* (3rd ed.). Wiley.
- DePamphilis, D. M. (2018). *Mergers, acquisitions, and other restructuring activities* (9th ed.). Academic Press.
- Dilawer, A. (2025). What’s the winning ingredient in M&A? The answer lies in due diligence. CFA Institute. <https://blogs.cfainstitute.org/investor/2025/02/03/whats-the-winning-ingredient-in-ma-the-answer-lies-in-due-diligence/>, retrieved 29.10.2025
- Dougherty, C. (2007). *Introduction to econometrics* (3rd ed.). Oxford University Press.

- Ernst & Young, (2022). Why due diligence has become vital to value creation. EY. https://www.ey.com/en_dk/insights/private-equity/why-due-diligence-has-become-vital-to-value-creation, retrieved 20.10.2025
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance (New York)*, 25(2), 383–423. <https://doi.org/10.2307/2325486>
- FAMA, E. F. (1991). Efficient Capital Markets: II. *The Journal of Finance (New York)*, 46(5), 1575–1617. <https://doi.org/10.1111/j.1540-6261.1991.tb04636.x>
- Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3–56. [https://doi.org/10.1016/0304-405X\(93\)90023-5](https://doi.org/10.1016/0304-405X(93)90023-5)
- Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of Financial Economics*, 43(2), 153–193. [https://doi.org/10.1016/S0304-405X\(96\)00896-3](https://doi.org/10.1016/S0304-405X(96)00896-3)
- Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *The Journal of Law & Economics*, 26(2), 301–325. <https://doi.org/10.1086/467037>
- Fisher, I. (1954). *The theory of interest*. Kelley & Millman.
- Gordon, M. J. (1959). Dividends, Earnings, and Stock Prices. *The Review of Economics and Statistics*, 41(2), 99–105. <https://doi.org/10.2307/1927792>
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting & Economics*, 31(1), 405–440. [https://doi.org/10.1016/S0165-4101\(01\)00018-0](https://doi.org/10.1016/S0165-4101(01)00018-0)
- Henry, J., & Van Oostende, M.V. (2025, February). M&A Annual Report: Is the wave finally arriving. McKinsey & Company. <<https://www.mckinsey.com/capabilities/m-and-a/our-insights/top-m-and-a-trends>>, Retrieved: 20.9.2025
- Holmstrom, B. (1979). Moral Hazard and Observability. *Bell Journal of Economics*, 10(1), 74–91. <https://doi.org/10.2307/3003320>
- Howson, P. (2003). *Due diligence : the critical stage in mergers and acquisitions* (1st ed.). Gower.
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323–329.
- 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://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Jovanovic, B., & Rousseau, P. L. (2002). The Q-Theory of Mergers. *The American Economic Review*, 92(2), 198–204. <https://doi.org/10.1257/000282802320189249>
- Junni, P., & Teerikangas, S. (2019). Mergers and Acquisitions. Oxford research Encyclopaedia of Business. Oxford University Press.

<https://oxfordre.com/business/display/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-15>, retrieved 25.9.2025

- Kahneman, D., & Tversky, A. (1979). Prospect theory: an analysis of decision under risk. *Econometrica*, 47(2), 263–291.
- Kaplan, S. N., & Strömberg, P. (2009). Leveraged Buyouts and Private Equity. *The Journal of Economic Perspectives*, 23(1), 121–146. <https://doi.org/10.1257/jep.23.1.121>
- Kastrup, T., Grant, M., & Nilsson, F. (2025). Practical and theoretical judgment in data-driven financial due diligence. *Accounting, Auditing, & Accountability*, 38(3), 879. <https://doi.org/10.1108/aaaj-11-2022-6167>
- McKinsey and Company, author. (2015). *Valuation: measuring and managing the value of companies* (6th ed.). Wiley.
- KPMG (2025). Mastering due diligence: A technical guide to sell-side preparedness M&A. <https://kpmg.com/lu/en/blogs/home/posts/2024/12/mastering-due-diligence-technical-guide-sell-side-m-and-a.html>, retrieved 2.10.2025
- Laamanen, T., & Keil, T. (2008). Performance of serial acquirers: towards an acquisition program perspective. *Strategic Management Journal*, 29(6), 663–672. <https://doi.org/10.1002/smj.670>
- Lebedow, A. L. (1999). M&A: Due Diligence: More Than a Financial Exercise. *The Journal of Business Strategy*, 20(1), 12–14. <https://doi.org/10.1108/eb039978>
- Lermyte, J. (2025). Financial innovation, optimal financing structure, an Austrian perspective: Financial innovation, optimal financing structure, an Austrian perspective. *The Review of Austrian Economics*, 38(2), 131–148. <https://doi.org/10.1007/s11138-023-00634-y>
- Lintner, J. (1969). The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets: A Reply. *The Review of Economics and Statistics*, 51(2), 222–224. <https://doi.org/10.2307/1926735>
- Markowitz, H. M. (1959). *Portfolio selection: efficient diversification of investments* (1st ed.). Yale University Press. <https://doi.org/10.12987/9780300191677>
- Modigliani, F., & Miller, M. H. (1959). The Cost of Capital, Corporation Finance, and the Theory of Investment: Reply. *The American Economic Review*, 49(4), 655–669.
- 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://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- ONEIL, P. (1986). The Escrow transactional method. *ACM Transactions on Database Systems*, 11(4), 405–430. <https://doi.org/10.1145/7239.7265>

- Perafán-Peña, H. F., Gill-de-Albornoz Noguer, B., & Giner, B. (2024). Targets' earnings management and ownership decisions in M&A: Can less be more? *Finance Research Letters*, 62, Article 105133. <https://doi.org/10.1016/j.frl.2024.105133>
- PwC (2023). Fair value measurements of investment property: IFRS 13. Practise guide. https://viewpoint.pwc.com/dt/gx/en/pwc/industry/industry_INT/industry_INT/real_estate__1_INT/Applying-IFRS-for-the-real-est/3_Subsequent_measurement_of_investment_property/3_6_Fair_value_measurement_of_investment_property_IFRS_13.html, retrieved 1.10.2025
- Reuer, J. J., Tong, T. W., & Wu, C.-W. (2012). A Signaling Theory of Acquisition Premiums: Evidence from IPO Targets. *Academy of Management Journal*, 55(3), 667–683. <https://doi.org/10.5465/amj.2010.0259>
- Rothschild, M., & Stiglitz, J. (1976). Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information. *The Quarterly Journal of Economics*, 90(4), 629–649. <https://doi.org/10.2307/1885326>
- Sharpe, W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *The Journal of Finance (New York)*, 19(3), 425–442. <https://doi.org/10.2307/2977928>
- Shleifer, A., & Vishny, R. W. (2003). Stock market driven acquisitions. *Journal of Financial Economics*, 70(3), 295–311. [https://doi.org/10.1016/S0304-405X\(03\)00211-3](https://doi.org/10.1016/S0304-405X(03)00211-3)
- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Stiglitz, J. E., & Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, 71(3), 393–410.
- Stock, J. H., & Watson, M. W. (2020). *Introduction to Econometrics* (4th ed.). Pearson.
- Vayas-Ortega, G., Soguero-Ruiz, C., Rojo-Álvarez, J.-L., & Gimeno-Blanes, F.-J. (2020). On the Differential Analysis of Enterprise Valuation Methods as a Guideline for Unlisted Companies Assessment (I): Empowering Discounted Cash Flow Valuation. *Applied Sciences*, 10(17), Article 5875. <https://doi.org/10.3390/app10175875>
- Vochozka, M., Máška, J., & Kovač, V. (2023). Role of due diligence in business takeover. *Ekonomia i Prawo*, 22(3), 635–654. <https://doi.org/10.12775/EiP.2023.034>
- Wangerin, D. (2019). M&A Due Diligence, Post-Acquisition Performance, and Financial Reporting for Business Combinations. *Contemporary Accounting Research*, 36(4), 2344–2378. <https://doi.org/10.1111/1911-3846.12520>
- Woolridge, J. M. (2020). *Introductory econometrics: a modern approach* (7th ed.). Cengage Learning.

Appendices

Appendix 1 Variable Definition

<i>Variable</i>	<i>Symbol</i>	<i>Definition</i>	<i>Source</i>	<i>Expected sign</i>
<i>Enterprise value / EBITDA</i>	<i>LN(EV/EBITDA)</i>	Natural logarithm for the enterprise value to EBITDA multiple	Bloomberg	
<i>Revenue volatility</i>	<i>REVVOL</i>	Standard deviation of revenues over 5 years divided by mean revenue over 5 years	Bloomberg	-
<i>Working capital</i>	<i>WORKCAP</i>	(Current assets – current liabilities) divided with revenue	Bloomberg	-
<i>Cash flow sustainability</i>	<i>CFSUSTW</i>	Ratio of operating cash flow to EBIT, winsorized at 5%/95%	Bloomberg	+
<i>Firm size</i>	<i>SIZE_LN</i>	Natural logarithm of total assets	Bloomberg	+
<i>Leverage</i>	<i>LEVERAGE</i>	Total debt to total assets ratio	Bloomberg	-
<i>Tobin's Q</i>	<i>TOBINQ</i>	The sum of market value of equity and total liabilities divided by total assets	Bloomberg	+
<i>Industry dummies</i>	<i>INDUSTRY_FE</i>	Industry fixed effects for sectors: industrial, media, retail, technology, healthcare	Bloomberg	Technology +
<i>Year dummies</i>	<i>YEAR_FE</i>	Year fixed effects for years 2009–2025	Bloomberg	2020 +

Appendix 2 Descriptive Statistics (Raw vs. Winsorized)

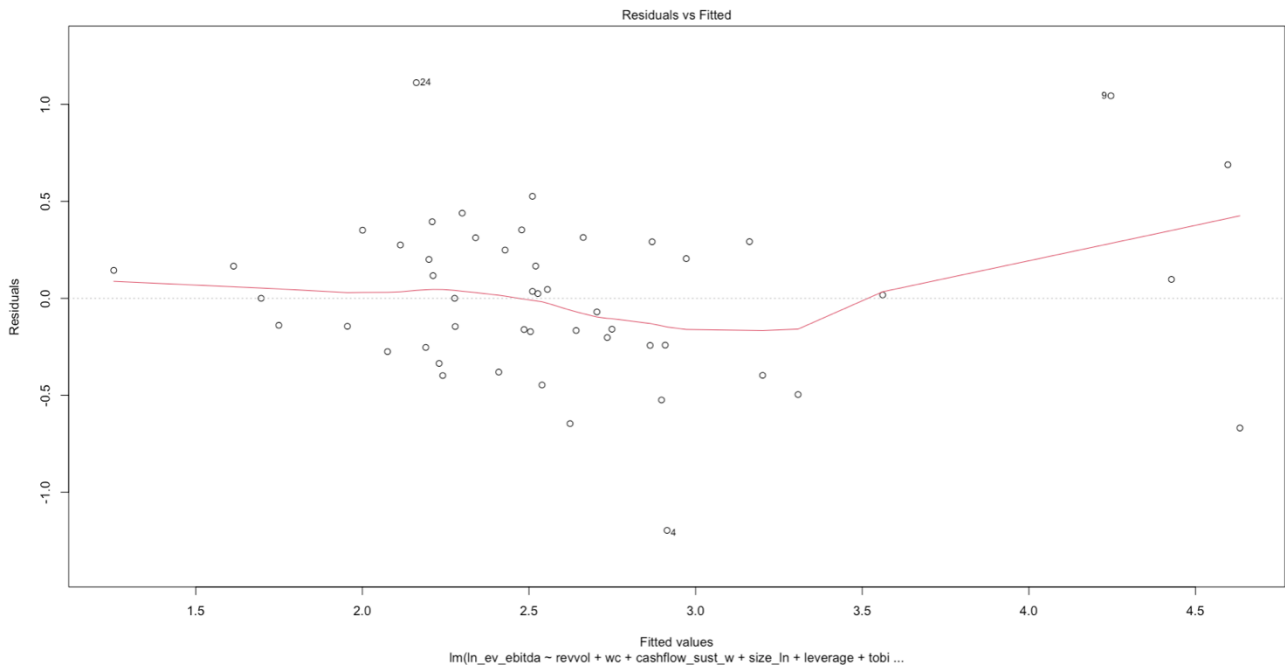
	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
revvol	1	50	0.20	0.17	0.14	0.17	0.13	0.02	0.80	0.78	1.46	1.88	0.02
wc	2	50	0.28	0.37	0.17	0.23	0.27	-0.20	1.45	1.65	1.34	1.60	0.05
cashflow_sust	3	50	3.32	18.16	1.15	1.18	0.64	-10.94	128.21	139.14	6.49	41.72	2.57
leverage	4	50	0.33	0.56	0.25	0.26	0.16	0.00	4.06	4.06	5.80	35.70	0.08
tobinq	5	50	2.45	1.64	2.21	2.22	1.23	0.49	9.66	9.16	1.99	5.66	0.23
size_ln	6	50	8.89	1.43	8.76	8.93	1.76	5.09	11.46	6.37	-0.21	-0.55	0.20
ln_ev_ebitda	7	50	2.62	0.81	2.55	2.51	0.52	1.40	5.29	3.89	1.52	2.74	0.12
cashflow_sust_w	8	50	1.03	0.98	1.15	1.18	0.64	-2.05	2.24	4.30	-1.76	3.42	0.14
leverage_w	9	50	0.26	0.16	0.25	0.26	0.16	0.00	0.54	0.54	0.05	-0.89	0.02

Appendix 3 Correlation Matrix (and p-values)

	revvol	wc	cashflow_sust_w	leverage	tobinq	size_ln	ln_ev_ebitda
revvol	1.0000000	0.06958001	-0.25301934	-0.05836054	0.3583506	-0.15693680	0.2994370
wc	0.06958001	1.0000000	-0.09293152	-0.23095274	0.3177597	-0.15631561	0.3087922
cashflow_sust_w	-0.25301934	-0.09293152	1.0000000	0.04352757	-0.1470466	0.05072719	-0.4005343
leverage	-0.05836054	-0.23095274	0.04352757	1.0000000	0.1094110	0.28286930	-0.1867476
tobinq	0.35835063	0.31775974	-0.14704658	0.10941103	1.0000000	-0.38001725	0.6332246
size_ln	-0.15693680	-0.15631561	0.05072719	0.28286930	-0.3800173	1.0000000	-0.2866604
ln_ev_ebitda	0.29943695	0.30879222	-0.40053432	-0.18674760	0.6332246	-0.28666041	1.0000000

	revvol	wc	cashflow_sust_w	leverage	tobinq	size_ln	ln_ev_ebitda
revvol	NA	0.63112545	0.076255749	0.68725932	1.060910e-02	0.276416599	3.464153e-02
wc	0.63112545	NA	0.520940771	0.10659751	2.453141e-02	0.278346018	2.911738e-02
cashflow_sust_w	0.07625575	0.52094077	NA	0.76406740	3.081887e-01	0.726452499	3.947707e-03
leverage	0.68725932	0.10659751	0.764067397	NA	4.494335e-01	0.046540806	1.940937e-01
tobinq	0.01060910	0.02453141	0.308188674	0.44943348	NA	0.006486645	8.017685e-07
size_ln	0.27641660	0.27834602	0.726452499	0.04654081	6.486645e-03	NA	4.355975e-02
ln_ev_ebitda	0.03464153	0.02911738	0.003947707	0.19409367	8.017685e-07	0.043559751	NA

Appendix 4 Linearity test



Appendix 5 Breusch-Pagan test on Homoscedasticity

studentized Breusch-Pagan test

data: model
 BP = 33.423, df = 23, p-value = 0.07397

Appendix 6 Durbin-Watson test for Autocorrelation

Durbin-Watson test

data: model
 DW = 2.3318, p-value = 0.6945
 alternative hypothesis: true autocorrelation is greater than 0

Appendix 7 VIF test

	GVIF	Df	GVIF ^{1/(2*Df)}
revvol	2.488771	1	1.577584
wc	2.024165	1	1.422731
cashflow_sust_w	1.720574	1	1.311707
size_ln	2.992364	1	1.729845
leverage	1.984825	1	1.408838
tobinq	2.081881	1	1.442872
factor(Industry)	11.706036	4	1.360039
factor(deal_year)	30.806989	13	1.140921

Appendix 8 F-test for Joint Significance of the Due Diligence Variables

Linear hypothesis test:

revvol = 0
 wc = 0
 cashflow_sust_w = 0

Model 1: restricted model

Model 2: ln_ev_ebitda ~ revvol + wc + cashflow_sust_w + size_ln + leverage +
 tobinq + factor(Industry) + factor(deal_year)

	Res.Df	RSS	Df	Sum of Sq	F	Pr(>F)
1	29	9.7248				
2	26	8.4293	3	1.2954	1.3319	0.2855

Appendix 9 Regression Results for the Original Model

Call:

```
lm(formula = ln_ev_ebitda ~ revvol + wc + cashflow_sust_w + size_ln +
    leverage + tobinq + factor(Industry) + factor(deal_year),
    data = df)
```

Residuals:

```
    Min       1Q   Median       3Q      Max
-1.1966 -0.2424  0.0086  0.2685  1.1120
```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.38904	1.30644	0.298	0.7682
revvol	0.31160	0.73885	0.422	0.6767
wc	-0.07558	0.31525	-0.240	0.8124
cashflow_sust_w	-0.18039	0.10868	-1.660	0.1090
size_ln	0.09773	0.09826	0.995	0.3291
leverage	-0.47727	0.20368	-2.343	0.0270 *
tobinq	0.33310	0.07157	4.654	8.38e-05 ***
factor(Industry)industrial	0.33578	0.34129	0.984	0.3343
factor(Industry)media	0.24868	0.35164	0.707	0.4857
factor(Industry)retail	0.12264	0.46242	0.265	0.7929
factor(Industry)technology	0.67098	0.33271	2.017	0.0542 .
factor(deal_year)2010	0.01679	0.82779	0.020	0.9840
factor(deal_year)2012	0.38730	0.78541	0.493	0.6261
factor(deal_year)2015	0.69355	0.51441	1.348	0.1892
factor(deal_year)2016	0.64585	0.56319	1.147	0.2619
factor(deal_year)2017	0.57426	0.65081	0.882	0.3857
factor(deal_year)2018	0.57895	0.53364	1.085	0.2879
factor(deal_year)2019	0.62375	0.57228	1.090	0.2857
factor(deal_year)2020	0.68408	0.57044	1.199	0.2413
factor(deal_year)2021	0.98999	0.66032	1.499	0.1459
factor(deal_year)2022	0.51907	0.56776	0.914	0.3690
factor(deal_year)2023	0.93151	0.56827	1.639	0.1132
factor(deal_year)2024	-0.14592	0.69657	-0.209	0.8357
factor(deal_year)2025	0.42543	0.66972	0.635	0.5308

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5694 on 26 degrees of freedom

Multiple R-squared: 0.7406, Adjusted R-squared: 0.5112

F-statistic: 3.228 on 23 and 26 DF, p-value: 0.002331

Appendix 10 Industry-Clustered SE Regression Results

OLS estimation, Dep. Var.: ev_ebitda

Observations: 50

Standard-errors: Clustered (Industry)

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-11.84039	64.95497	-0.182286	0.864224
revvol	-8.10945	38.47008	-0.210799	0.843348
wc	-13.20232	15.87697	-0.831539	0.452427
cashflow_sust_w	-18.10442	3.95822	-4.573883	0.010231 *
size_ln	1.20942	5.15605	0.234563	0.826066
leverage	-11.36028	7.39594	-1.536015	0.199338
tobinq	11.91188	7.96054	1.496366	0.208895
factor(Industry)industrial	7.58177	12.23600	0.619628	0.569054
factor(Industry)media	7.09317	10.60597	0.668791	0.540247
factor(Industry)retail	-8.24206	23.05492	-0.357497	0.738785
factor(Industry)technology	27.17693	10.38327	2.617377	0.058961 .
factor(deal_year)2010	29.28400	13.92955	2.102293	0.103385
factor(deal_year)2012	2.60037	9.23375	0.281616	0.792207
factor(deal_year)2015	9.48936	7.04202	1.347533	0.249076
factor(deal_year)2016	21.75911	10.03829	2.167610	0.096067 .
factor(deal_year)2017	13.98995	7.60800	1.838847	0.139785
factor(deal_year)2018	12.66492	5.43807	2.328935	0.080346 .
factor(deal_year)2019	21.59812	4.90647	4.401967	0.011673 *
factor(deal_year)2020	18.91209	17.15934	1.102145	0.332254
factor(deal_year)2021	53.46881	32.44193	1.648139	0.174669
factor(deal_year)2022	-3.45392	33.04852	-0.104510	0.921795
factor(deal_year)2023	21.79902	15.15749	1.438168	0.223771
factor(deal_year)2024	11.54611	10.68101	1.080995	0.340520
factor(deal_year)2025	8.12002	8.66226	0.937401	0.401624

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

RMSE: 20.6 Adj. R2: 0.457378

Appendix 11 Additional Regression Results

```

Call:
lm(formula = ln_ev_ebitda ~ revol + size_ln + leverage + tobing +
  factor(Industry) + factor(deal_year), data = df)

Residuals:
    Min       1Q   Median       3Q      Max
-0.77481 -0.22966  0.00565  0.25084  1.34251

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.57909    1.13205  -0.512  0.61298
revol        0.76436    0.69569  1.099  0.28125
size_ln      0.16120    0.08990  1.793  0.08378
leverage    -0.49054    0.18000  -2.476  0.01958
tobing       0.34779    0.06944  5.008 2.71e-05 ***
factor(Industry)industrial  0.44192    0.33974  1.301  0.20394
factor(Industry)media      0.32073    0.34788  0.922  0.36443
factor(Industry)retail     0.35611    0.44642  0.798  0.43176
factor(Industry)technology 0.87537    0.31096  2.815  0.00883 **
factor(deal_year)2010     -0.33398    0.79832  -0.418  0.67888
factor(deal_year)2012     0.49327    0.77806  0.634  0.53124
factor(deal_year)2015     0.73617    0.51760  1.422  0.15599
factor(deal_year)2016     0.66180    0.55464  1.193  0.24280
factor(deal_year)2017     0.49520    0.62764  0.789  0.43675
factor(deal_year)2018     0.50104    0.50708  0.988  0.33157
factor(deal_year)2019     0.47150    0.56991  0.827  0.41504
factor(deal_year)2020     0.52560    0.56015  0.938  0.35610
factor(deal_year)2021     1.10000    0.62450  1.761  0.08909
factor(deal_year)2022     0.53005    0.53849  0.984  0.33338
factor(deal_year)2023     0.70617    0.59311  1.263  0.21700
factor(deal_year)2024    -0.21420    0.87971  -0.315  0.75409
factor(deal_year)2025     0.41313    0.64241  0.643  0.52540
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.577 on 28 degrees of freedom
Multiple R-squared:  0.7131, Adjusted R-squared:  0.498
F-statistic: 3.314 on 21 and 28 Df, p-value: 0.001734

Call:
lm(formula = ln_ev_ebitda ~ wc + size_ln + leverage + tobing +
  factor(Industry) + factor(deal_year), data = df)

Residuals:
    Min       1Q   Median       3Q      Max
-0.87076 -0.27007 -0.00453  0.20890  1.38469

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.238190    1.162340  -0.205  0.8391
wc           0.002983    0.321998  0.009  0.9927
size_ln      0.142289    0.091801  1.550  0.1324
leverage    -0.468960    0.209883  -2.234  0.0336 *
tobing       0.355859    0.073115  4.867 3.99e-05 ***
factor(Industry)industrial  0.285026    0.314876  0.905  0.3731
factor(Industry)media      0.202992    0.344856  0.589  0.5608
factor(Industry)retail     0.092541    0.384583  0.241  0.8116
factor(Industry)technology 0.750189    0.298690  2.512  0.0181 *
factor(deal_year)2010     -0.078060    0.795316  -0.098  0.9225
factor(deal_year)2012     0.533337    0.809324  0.659  0.5153
factor(deal_year)2015     0.682442    0.529224  1.290  0.2078
factor(deal_year)2016     0.812202    0.566610  1.433  0.1628
factor(deal_year)2017     0.630698    0.661069  0.954  0.3482
factor(deal_year)2018     0.621693    0.539683  1.152  0.2592
factor(deal_year)2019     0.508648    0.583804  0.871  0.3911
factor(deal_year)2020     0.548096    0.582118  0.942  0.3545
factor(deal_year)2021     1.213736    0.672209  1.806  0.0817
factor(deal_year)2022     0.595754    0.584889  1.019  0.3171
factor(deal_year)2023     0.778312    0.567297  1.372  0.1810
factor(deal_year)2024     0.033520    0.683672  0.049  0.9612
factor(deal_year)2025     0.396161    0.692838  0.572  0.5720
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5893 on 28 degrees of freedom
Multiple R-squared:  0.7008, Adjusted R-squared:  0.4763
F-statistic: 3.122 on 21 and 28 Df, p-value: 0.002702

Call:
lm(formula = ln_ev_ebitda ~ cashflow_sust_w + size_ln + leverage +
  tobing + factor(Industry) + factor(deal_year), data = df)

Residuals:
    Min       1Q   Median       3Q      Max
-1.2054 -0.2707  0.0000  0.2758  1.1033

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.498398    1.102325  0.452  0.6547
cashflow_sust_w -0.193370    0.096767 -1.998  0.0555
size_ln      0.090636    0.088135  1.028  0.3126
leverage    -0.453780    0.188481 -2.408  0.0229 *
tobing       0.330185    0.067219  4.912 3.53e-05 ***
factor(Industry)industrial  0.270016    0.294650  0.916  0.3673
factor(Industry)media      0.183792    0.316557  0.581  0.5662
factor(Industry)retail     0.008373    0.362212  0.023  0.9817
factor(Industry)technology 0.600029    0.286663  2.093  0.0455 *
factor(deal_year)2010     0.173666    0.740868  0.234  0.8164
factor(deal_year)2012     0.433409    0.744282  0.582  0.5650
factor(deal_year)2015     0.684821    0.492300  1.391  0.1752
factor(deal_year)2016     0.734155    0.515261  1.425  0.1653
factor(deal_year)2017     0.679987    0.588884  1.155  0.2580
factor(deal_year)2018     0.675340    0.474145  1.424  0.1654
factor(deal_year)2019     0.662487    0.549055  1.207  0.2377
factor(deal_year)2020     0.730849    0.542723  1.347  0.1889
factor(deal_year)2021     1.082321    0.592296  1.827  0.0784
factor(deal_year)2022     0.593826    0.511507  1.161  0.2555
factor(deal_year)2023     0.377790    0.539850  0.701  0.4888
factor(deal_year)2024    -0.002351    0.613451 -0.004  0.9970
factor(deal_year)2025     0.475545    0.614933  0.773  0.4458
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5513 on 28 degrees of freedom
Multiple R-squared:  0.7381, Adjusted R-squared:  0.5417
F-statistic: 3.758 on 21 and 28 Df, p-value: 0.0006485

```

Appendix 12 Declaration of the Use of Artificial Intelligence (AI)

1. Tool: OpenAI's ChatGPT (GPT-5 Version)

- **Stage of use:** Data Analysis and Proofreading
- **Purpose of use:** I used ChatGPT to assist with debugging codes for statistical analyses using RStudio. Additionally, I applied this AI tool to proofread my text to detect any spelling and grammar mistakes.
- **Verification:** I encountered difficulties when I needed to winsorize a part of my dataset, since I am not familiar with this kind of code. The AI results helped me formulate the correct code to ensure that the winsorization was properly executed. The code suggested by AI was cross-checked with winsorizing the data in Excel by hand. The results remained consistent. Regarding proofreading, I carefully went through the recommendations that were generated by AI and applied only those that would truly enhance readability in my thesis. The final language of this thesis remained in my control.

