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**"Exploratory Analysis: Can Blockchain technology improve
M&A due diligence efficiency?"**

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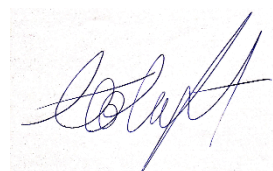
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A handwritten signature in black ink, appearing to read 'L. Luft', written in a cursive style.

Léo Etienne Luft

Exploratory Analysis: Can Blockchain technology improve M&A (financial) due diligence efficiency?

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Abstract

This exploratory body of work examines the recent and current developments in blockchain technology and applications in an attempt to assess whether blockchain related concepts, such as tokenization, can improve the efficiency of business operations, by the example of M&A transactions. M&A are traditionally known to be time-consuming and capital-intensive transactions but blockchain technology may help mitigate some of the prevalent inefficiencies. This work will analyze the (financial) due diligence process of M&A transactions and encompass opinions from industry experts to provide an assessment of the current state-of-art and trends regarding blockchain tokenization and the utilization of blockchain technology in an M&A due diligence context.

Keywords: M&A, Due Diligence, Blockchain, Process Automation, Digitization

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1. Introduction

Blockchain technology has emerged as a disruptive force, challenging established business practices with its promise of enhanced security, transparency, and efficiency. This master's thesis examines blockchain's potential to disrupt the financial due diligence (FDD) process in mergers and acquisitions (M&A). FDD is a critical phase in M&A, influencing the transaction's success. The research explores the hypothesis that blockchain can streamline FDD, reduce errors, and improve the integrity of financial assessments, potentially transforming the M&A landscape. The introduction of blockchain into FDD signifies a shift in managing financial information, promising a more secure and transparent ledger system. This study aims to dissect the implications of blockchain's disruptive potential in M&A due diligence, assessing its capacity to innovate within this critical business function.

1.1 Objectives

1. *To Identify Areas for Improvement in financial due diligence Processes.* The research aimed to pinpoint areas where the FDD process could be improved.
2. *To Assess the Potential for Cost Reduction in the financial due diligence Phase of M&A Transactions.* An early goal of the research was to identify cost reduction opportunities in the FDD phase of M&A transactions.
3. *To Examine the Impact of Information Asymmetry, Data Quality and Transparency on financial due diligence Quality.*
4. *To Explore the Suitability of New Technologies for financial due diligence.* Another objective was to explore the suitability of blockchain technology, for mitigating risks and alleviating inefficiencies of potential FDD deficiencies discovered and other ways in which blockchain could improve the efficiency and effectiveness of the financial due diligence (FDD) process in mergers and acquisitions (M&A).
5. *To Establish a Methodological Approach for Empirical Investigation.* The research sought to develop a methodological framework for conducting empirical investigations, particularly through expert interviews.
6. *To Contribute to the Academic and Practical Understanding of Blockchain in M&A.* Finally, the author likely aimed to contribute to both the academic literature and practical knowledge regarding the application of blockchain technology in the M&A sector, as suggested by the focus on this emerging technology in the research questions and hypotheses. These objectives collectively set the stage for a study exploring the potential of blockchain

technology to transform the M&A due diligence process, with a focus on improving efficiency, reducing costs, and enhancing the quality of information used in decision-making.

1.2 Expected Contributions

The research embarked upon an explorative journey, aiming to illuminate the potential of the intersection of blockchain technology and financial due diligence (FDD) within mergers and acquisitions (M&A). Given the pioneering character of the study, the expected contributions were primarily to identify areas for improvement in the traditional financial due diligence process and subsequently derive and forecast potential implications and applications of blockchain in M&A due diligence. The explorative nature of the research was anticipated to provide preliminary insights into a relatively uncharted domain, setting the groundwork for future empirical studies. Further, the research aimed at contributing to the body of knowledge by advancing the understanding of how blockchain technology could optimize the FDD process in M&A transactions. This would involve identifying the technological benefits, challenges, and inefficiencies that blockchain could address, thereby offering a detailed perspective on its transformative potential. An important expected contribution is to highlight the nascent stage of blockchain technology in the financial sector. The study would shed light on the current state of blockchain applications in business and M&A due diligence more specifically, acknowledging the scarcity of real-world applications and the pioneering efforts that are beginning to emerge. Given the limited academic literature and the small sample size of qualified experts, the research methodology itself was expected to contribute to the field. The use of semi-structured expert interviews and qualitative analysis software like MaxQDA to transcribe and analyze the data would offer a methodological framework for similar future studies. Finally, it was expected to identify 'white gaps' or areas where data is scarce, thereby outlining the limitations and potential directions for future research. The study would serve as a steppingstone for subsequent investigations, encouraging larger sample sizes, engagement with more qualified experts, and a richer academic foundation to further the understanding of blockchain's role in FDD within M&A.

In summary, the expected contributions of the research were to explore the potential of blockchain in M&A due diligence, to navigate the challenges of the M&A industry's secretive nature, and to lay the groundwork for future academic inquiry into this innovative and evolving field.

1.3 Methodology

In the pursuit of advancing our understanding of blockchain technology's impact on the financial due diligence (FDD) process within mergers and acquisitions (M&A), this chapter delineates the methodological framework employed in this research. The methodology is the backbone of any empirical study, providing the necessary structure to explore, analyze, and interpret data within the context of the research objectives. The following sections will articulate the research design, participant selection, data collection, and analysis procedures that underpin the empirical findings of this thesis.

Qualitative Literature Review. The foundation of this research was laid through an exhaustive, twofold qualitative literature review, meticulously covering two critical areas: M&A due diligence, with a specific focus on Financial Due Diligence (FDD), and Blockchain technology, encompassing both the theoretical and technological frameworks, as well as realized and potential future use cases. This comprehensive review was instrumental in establishing the theoretical underpinnings for the study, ensuring a robust understanding of the intricate dynamics at play within FDD processes and the transformative capabilities of blockchain technology. By addressing these topics, the literature review set the stage for a focused empirical investigation, tailored to the business-oriented audience of this work. In line with the pragmatic approach of this thesis, the review addressed the technical aspects of blockchain only to the extent necessary to inform the subsequent research, thus technical matters were simplified to crucial concepts.

Research Design. The research adopted a qualitative approach, utilizing semi-structured expert interviews as the primary data collection method. This design was chosen due to its flexibility, allowing for in-depth exploration of the participants' insights and experiences with blockchain in FDD. The semi-structured format provided a balance between guided inquiry and the opportunity for participants to introduce new ideas, fostering a rich understanding of the subject matter. In the empirical exploration of blockchain technology's impact on the financial due diligence (FDD) process within mergers and acquisitions (M&A), participant selection was focused on M&A professionals. This deliberate choice was made to garner in-depth insights from professionals deeply entrenched in the FDD landscape.

Participants. The participants were seasoned M&A practitioners, including senior managers, directors, and vice presidents from leading consulting firms and financial institutions. The rationale behind this targeted selection was to engage with individuals who could provide a rich, experiential perspective on the current practices, challenges, and inefficiencies inherent in the FDD process. Their expertise was crucial in assessing the potential for blockchain technology to enhance the due diligence process within M&A transactions. By concentrating on M&A

experts, the study aimed to capture a detailed understanding of the practical implications of blockchain technology from a standpoint of direct relevance to the industry.

Data collection, Transcription and Analysis. Data collection commenced with the conduction of semi-structured interviews, which were audio-recorded with the consent of the participants. The interview guide comprised open-ended questions designed to probe the technological benefits of blockchain, the intricacies of the FDD process, and the challenges and inefficiencies that could be addressed by blockchain adoption. The recorded interviews were transcribed using qualitative analysis software, MaxQDA. This software facilitated the organization and coding of the data, enabling the identification of recurring themes and patterns. The transcripts were manually revised alongside the audio recordings to ensure accuracy and to capture the nuances of the participants' responses.

Analytical Journey. The analytical journey involved an iterative process of open and axial coding, where data was categorized into initial codes that were then refined into key themes. This inductive approach allowed for the emergence of sub-categories, which were continuously refined through subsequent rounds of coding. The iterative nature of this process ensured that the analysis was grounded in the data, leading to the extraction of meaningful insights.

Ethical considerations. Ethical considerations were paramount throughout the research process. Participant confidentiality was maintained, and informed consent was obtained prior to the interviews. The research adhered to the ethical guidelines of academic research, ensuring that the data was collected and used responsibly.

Limitations. The research acknowledges the limitations inherent in qualitative research, including the potential for researcher bias and the subjective interpretation of data. Additionally, the secretive nature of the M&A industry and the nascent state of blockchain technology in this domain presented challenges in gathering empirical evidence. These limitations were mitigated through careful participant selection, methodological rigor, and transparency in the research process.

The methodology chapter has outlined the systematic approach employed to explore the intersection of blockchain technology and FDD within M&A transactions. The qualitative research design, through expert interviews, provided a foundation for a nuanced empirical analysis, contributing to a deeper understanding of the potential transformative effects of blockchain on the due diligence process. The subsequent chapters will delve into the empirical findings and discussions that stem from this methodological groundwork.

2. Mergers & acquisitions

This chapter explores the complex process of mergers and acquisitions (M&A), starting with a clear definition of the term and context of this work. We then dissect the M&A process using Alexandra Reed Lajoux's "The Art of M&A" as a guide, breaking it down into eight distinct phases. A visual overview in Figure 1 and subsequent explanations provide a step-by-step understanding of each stage. This concise examination aims to equip readers with a practical framework for understanding the strategic and operational aspects of M&A.

Definition. Generally, the term merger and acquisition (subsequently M&A) is used to describe a merger or amalgamation of two companies to form a legal and economic unit (merger) or the acquisition of company units or an entire company (acquisition) (Mietzner, 2018). The investor-oriented knowledge hub Investopedia defines M&As as: “[...] the consolidation of companies or their major business assets through financial transactions between companies. A company may purchase and absorb another company outright, merge with it to create a new company, acquire some or all its major assets, make a tender offer for its stock, or stage a hostile takeover. All are M&A activities.” (Hayes, 2023).

The M&A Process/The acquisition process. With this rather general definition of M&As, this chapters now dives deeper into the common procedure during M&A transactions to further identify and understand potential challenges and of M&A and the phases where during which they occur. In M&A transactions with the goal to close lasting and beneficially performing deals both parties, “acquirers/buyers” and “sellers or targets,” carry out an acquisition process which is split into several stages with different goals, respectively. Lajoux defines this acquisition process as “The M&A Process” which will be briefly laid out in Figure 1 and thereunder for further referencing (Lajoux, 2019, p. 5).

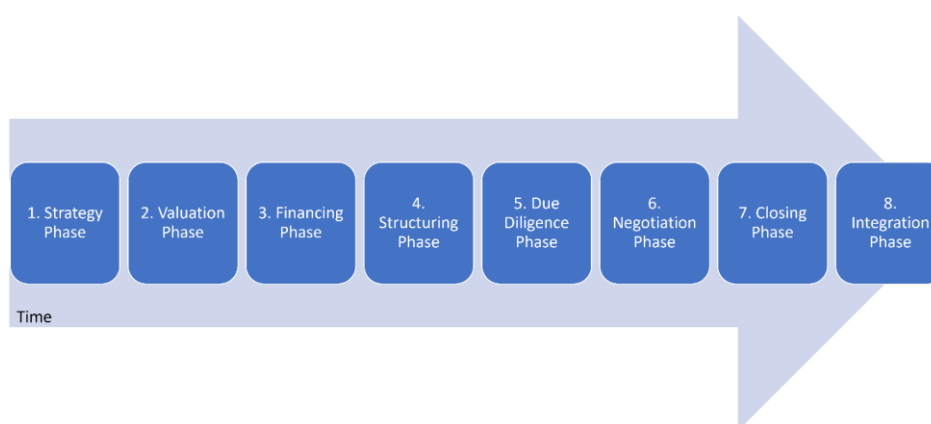


Figure 1: The Acquisition Process as described by Lajoux, own creation.

As the graph shows, the M&A process consists of eight phases. All phases, including a brief description are listed hereunder in chronological order.

1. The *Strategy Phase*: In the strategy phase the parties make initial strategic decisions. E.g., “Deciding whether, and if so how, to buy or sell whether as a strategic buyer or a financial buyer” (Lajoux, 2019, p. 5).

2. The *Valuation Phase*: During this phase, the value of the target, respectively to be sold, company is determined.

3. The *Financing Phase*: After deciding whether to buy or not and, if yes, to which price the acquirers now set out to obtain the funds required. This can be done internally or externally.

4. The *Structuring Phase*: In the structuring phase the involved parties make proper designations for the transaction. In this phase mainly law, tax, accounting, and financing matters are being dealt with.

5. The *Due Diligence Phase*: In the due diligence phase fall all investigations and other efforts in analyzing the company’s history, present and future to verify whether the target company truly is what it is said to be and to uncover/identify possible “risk exposure material to the transaction” (Lajoux, 2019, p. 5).

6. The *Negotiation Phase*: Once the due diligence is done and all parties still want to proceed with the deal, the negotiation phase begins. As in other, non -M&A-specific, deals the main goal of this stage is to reach an agreement between all involved parties to close the deal. In this stage a certain level of finesse is required of both parties to come to an agreement “without jeopardizing the deal” (Lajoux, 2019, p. 5).

7. The *Closing Phase*: After an official bilateral agreement of purchase/sale, the transaction of funds is put forward during the closing phase, making the deal official.

8. The *Integration Phase*: Finally, in the integration phase, post-merger operations are being managed. E.g., management through standalones, full integration, amalgamation and/or divestiture.

2.1 Classification of Mergers: Common Merger Types

The most common types of M&A transactions are horizontal, vertical, market-extension, product-extension, and conglomerate mergers/acquisitions. Hereunder, a brief description of each type can be found, as well as some exemplary cases for of each type.

Horizontal Merger: This is a merger between companies that are in direct competition with each other in terms of product lines and markets (Hayes, 2023). A prominent example is the Exxon & Mobil merger that created the largest oil company of the world at that time. A more recent example is the acquisition of the social media App Instagram by Meta, at that time Facebook (Tarver, 2022).

Vertical Merger: This is a merger between companies that are along the same supply chain but provide different functions for a common good or service (Hayes, 2023). Typically, this type of merger occurs when a company attempts to increase their control over the supply chain process by vertically integrating key areas such as supply and distribution (Kenton, 2022). eBay's merger with PayPal (U.S. Securities and Exchange Commission (SEC), 2002) is one of the most prominent examples for vertical integration.

Market-Extension Merger: This is a merger between companies in different markets that sell similar products or services but in different market sectors, with the goal to exploit a larger market and thus customer base than previously (Hayes, 2023). An example is the merger of food and beverage companies Kraft Foods Group and the H.J. Heinz Holding Corporation, creating the third-largest food and beverage company in the US (Businesswire, 2015).

Product-Extension Merger: In contrast to the market-extension mergers, product-extension-mergers are mergers between companies in the same markets selling different but related products or services (Hayes, 2023). A prominent example is the ongoing merger of Broadcom and VMware (Reuters, 2023).

Conglomerate Merger: This is a merger between companies in unrelated business activities, often to diversify by tapping several different markets. Some conglomerates, however, participate in a single business sector, a common example is the mining industry (Chen J. , 2023). A recent example is the acquisition of Whole Foods by Amazon (Cain, 2022).

2.2 Common Challenges In M&A

Some more common challenges arising during M&A transactions are categorized in the subsequent paragraphs. More generally, there are several recurring dimensions that frequently are the source of inefficiencies or even failed M&A deals. These dimensions are interpersonal activities and human resource management, strategy & communications, governance, performance management and finally due diligence (as a whole). They usually each be attributed to one sub-category of due diligence named in the previous chapter that has been conducted in an incorrect or incomplete manner prior to the deal.

In a study released in 2022 the consulting firm Bain & Company examined the key reasons for deals exceeding expectations as well as main factors for failure of M&A deals. Figure 2 displayed hereunder shows a summary of the results (Bain & Company, Inc., 2022).

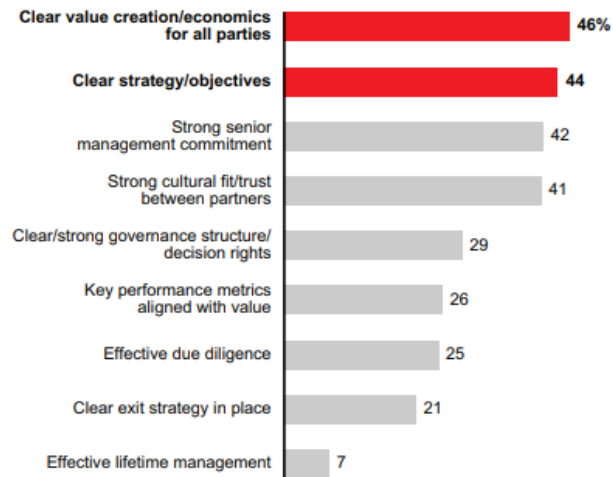
Figure 2: Clear value creation and strategy, strong senior management, and cultural fit are key factors for joint venture and alliance deal success

Considering deals that met or exceeded expectations, what were the key reasons that they succeeded?

Considering deals that did not meet expectations, what were the key reasons that they failed?

Percentage of joint venture and alliance respondents

Percentage of joint venture and alliance respondents



Source: Bain M&A Practitioners' Survey, 2022 (N=281)

Figure 2: Key Reasons for Success/Failure in M&A deals. (Bain & Company, Inc., 2022, p. 31)

Most reasons can be attributed to interpersonal disciplines such as: human resource management, strategy and communication or leadership. However, it is unsure that these dimensions can be fully digitized and automated soon and at least debatable whether this would be desirable. To stay within the initial scope of the research question, this chapter will go forward examining the named reasons where the use of blockchain technology could be a potential remedy based on the understanding and potential uses for blockchain technology of the prior chapters. A particularly striking finding with regards to the previous chapter is that “effective/ineffective due diligence” is both a common reason for successful deals and a common reason for failed deals, with 25% and 20% share of respondents, respectively. This notion is concurred, albeit to varying degrees, by consulting firms such as Deloitte (Boe & Bastholm, 2022, p. 9). These finding clearly underlines the importance of due diligence in M&A deals and the double-edged sword it can be while conducting M&A activities. While effective due diligence seems slightly more likely to have positive effects on the outcome of a deal, ineffective due diligence also undeniably hampers M&A deals/closure. Additionally, issues concerning governance and performance management/metrics could be alleviated using blockchain technology. Each of the

reason have been named by 32% and 25% of the respondents respectively, underlining the importance of each these challenges. In addition to the 20% share of respondents that name ineffective due diligence as a major factor of M&A deal failures, two more dimensions of reasons seem to stand out from the top ten reasons for failed M&A deals. These are governance structure and decision rights, key performance metrics and management and due diligence including all its sub-categories.

The latter will be the center of an all-sub-sequent analysis as we suppose due diligence is most apt to be conducted largely digitally and in a mostly automatized manner, while still requiring highest security and regulatory compliance standards. This is mainly due to the length and extent of the process, the sensitivity of involved data and/or information as well as the due diligence's overall impact on the deal and post-transaction performance and projections. In other words, the known problems of the due diligence process call for a faster, ideally digital, non-tamper-able, securely encrypted solution for a restricted group of people or entities reducing the time spent on the process by intermediaries to mere custodian duties requiring much less time effort than prior. Having understood this basic requirement of due diligence in general it seems they are a multitude of potential use cases for the utilization blockchain technology throughout the due diligence process that could increase efficiency significantly, as also noted by law firms Clairfield International (Clairfield International, 2019, pp. 2-8) and TMT Law Practice (Arora, 2022) and law/bar associations in general (Dorsino, 2022). Besides lawyers, government agencies seem to become increasingly aware of the potential that the use of blockchain technology in M&A transactions could have (Klukowski, 2019). And possible efficiency enhancements have been pointed repeatedly in more recent academic literature (Alang, 2021, p. 476). Mainly naming faster, more accurate and cheaper transactions achieved through a reduction of the usually time-consuming and therefore expensive due diligence phase.

2.3 Exemplary Cases of Inadequate Due Diligence

To highlight the importance of thorough due diligence in the context of M&A deals, the subsequent table will briefly summarize cases in which deficient due diligence affected the overall deal performance negatively.

America Online (AOL) & Time Warner (two thousand). During the height of the dot-com Internet bubble (Case, 2010) the companies AOL and Time Warner merged in a multimillion (US) dollar transaction, the biggest ever closed at that time. However, the merger turned out to become a prime example of why thorough due diligence is critical in M&A (Kim & Kauppila,

2022). The strategic rationale was to create a new, vertically integrated media and entertainment company by maximizing and combining the usage of Time Warner's broadband infrastructure, media contents and subscriber-base with AOL's online capabilities and internet infrastructure. The newly combined organization was anticipated to offer a significant new broadband distribution platform for AOL's interactive services. This was expected to fuel subscriber growth through collaborative marketing efforts with Time Warner's highly regarded brands (Kumar, 2019, pp. 35-36). However, the anticipated synergy effects that were expected from the merger never materialized as projected. The reasons most cited for merger's bad performance are cultural differences and resulting integration challenges, negative financial synergies and faulty assessment of the newly created internet economy and its rapid development (Kumar, 2019, pp. 36-37). AOL has also been scrutinized for questionable accounting methods such as classifying CD-ROMs as assets, as opposed to as marketing expenses (Kim & Kauppila, 2022), or artificially inflating their advertising revenue and other fraudulent activities for which the company was fined by the SEC (U.S. Securities and Exchange Commission, 2005). The merger ended in a disaster as the dot-com Internet bubble burst, AOL eventually ended-up recording net losses reported at \$99 billion in the form of goodwill write-offs. Time Warner completed the spin-off of AOL in 2009 (Kumar, 2019, pp. 36-37).

Bank of America & Countrywide (2008). In 2008 the Bank of America bought Countrywide Financial for \$4 billion (Reuters, 2008). It was part of the bank's management's plan to grow to become the second largest US bank through a series of M&A activities (Zaroli, 2013) and created the US's biggest mortgage servicer at that time. Further, the companies expected to benefit from significant financial synergies by reducing cost stemming from overlapping expenses, such as marketing, distribution, and technology (Kumar, 2019, pp. 266-267). At that time Countrywide's was already stock well under pressure because of the on-going mortgage and housing market crisis, allowing for the Bank to take it over at 7.5% discount on the stock price. While the strategic rationale for the deal was sensible and the acquisition price looked attractive from an economic point of view (Zaroli, 2013) the unfolding events suggest that the due diligence phase, especially the financial aspect of it, has been rushed (Venzin, Vizzaccaro, & Rutschmann, 2018, p. 100). With the acquisition of Countrywide Bank of America also took over Countrywide's extensive yet distressed mortgage and loan portfolio. Subsequently, Countrywide was found guilty of defrauding federal mortgage servicers Fannie Mae and Freddie Mac in 2013 (Raymond, 2013) and by 2016 the mortgage operations have lost the bank more than \$50 billion. On top of that Bank of America had to repay Fannie Mae over \$3.5 billion and buy back foul loans worth \$6.75 billion (Kumar, 2019, pp. 266-267). This acquisition was long regarded as one of the worst economic decisions in the US's financial sector.

Hewlett Packard & Autonomy (2011). A more recent example where rushes financial due diligence lead to disastrous M&A deal performance (Venzin, Vizzaccaro, & Rutschmann, 2018, p. 101) and ended in a fiasco is the acquisition of Autonomy by Hewlett Packard (subsequently “HP”) in October 2011 (U.S. Securities and Exchange Commission, 2011). With the acquisition HP attempted widen their product portfolio and change the firm’s positioning by moving away from the more capital-intensive computer hardware business and into the computer software and services market allowing for much more lucrative margins. HP acquired Autonomy for \$11.1 billion in 2011 but the expected benefits never materialized (Gupta, Damouni, & Sandle, 2012). Just a year after the acquisition revenues began to decline triggering an internal investigation which uncovered signs of fraudulent accounting methods at Autonomy. Subsequently, HP recorded an \$8.8 billion impairment charge and lead to further investigations by governmental agencies (Venzin, Vizzaccaro, & Rutschmann, 2018, p. 101). While courts have eventually indeed found Autonomy guilty of several charges (Sayer, 2022) it seems obvious that more thorough due diligence could have avoided this multibillion failure.

2.4 M&A Due Diligence

In the context of mergers and acquisitions, due diligence is a critical process that involves a thorough investigation into the target company. Lajoux describes the main purpose of due diligence as assessing the potential risks of a proposed transaction by examining all relevant aspects of the business's past, present, and foreseeable future (Lajoux, 2019, pp. 455-456). Specifically, in M&A, due diligence “should include basic activities to meet diligence standards of common law and best practices.” (Lajoux, 2019, pp. 455-456). Typically, due diligence encompasses a variety of review activities, including the examination of financials (including projections), operations and management, legal and regulatory compliance, and the verification of documents and transactions. Due diligence can be subdivided further in topic-specific types of due diligence. However, as there is no one-fits-all or globally standardized classification of due-diligence types. For the purposes of this work, we will adopt the categorization that all due diligence sub-types generally fall into one of three main areas: Legal due diligence, Financial due diligence, or Commercial due diligence, as suggested by the Institute of Chartered Accountants in England and Wales (ICAEW, n.d.).

This thesis will focus solely on financial due diligence, a decision stemming from the seemingly crucial role this process plays in determining the sensibility and viability of a deal. Financial due diligence is essential for a comprehensive understanding of the target company's economic health as well as projecting future performance and synergies. It entails an exhaustive

examination of the company's financial documentation, which can encompass audited financial statements, adherence to tax obligations, and the strength of financial governance mechanisms. By narrowing down on financial due diligence, the thesis aims to provide a thorough analysis on a due diligence workstream that substantially affects the investment decision and potential outcome of the M&A transaction.

2.5 The Traditional Financial Due Diligence Process

The subsequent chapter will take a closer look at the traditional financial due diligence (FDD) process. This detailed examination is designed to equip us with a clear understanding of its goals and the specific tasks and content that comprise this critical aspect of M&A. The insights gained from this chapter will not only enhance our comprehension of FDD but also guide us in formulating pertinent questions for later stages of the research. These questions will be instrumental when conducting expert interviews, as they can help us explore potential areas of improvement within the FDD process.

Financial due diligence serves as a tool to mitigate the inherent information asymmetry regarding financials between buyers and sellers in a transaction. For buyers, it provides a mechanism to verify their expectations and reduce the risks associated with the acquisition. On the seller's side, while the primary purpose is to instill confidence in the buyer, there is also the potential for the seller to exploit their advantageous position regarding information asymmetry (Corporate Finance Institute, n.d.).

As stated earlier, it encompasses a detailed analysis of a company's current financial situation as well as its planned financial development. The results of financial due diligence are used for determining the purchase price, structuring the purchase agreement, guiding negotiations, and as a basis for integration plans (Pomp, 2018). During the M&A process, financial due diligence identifies key value drivers as well as strengths and weaknesses of the target company and identifies and quantifies risks and opportunities of the business as far as possible. Generally, the core analyses of financial due diligence particularly include analyses of the historical and planned earnings, asset, and financial situation of the target company (Pomp, 2018).

Historical Earnings Situation: The historical profitability (EBIT/EBITDA) derived from the financial statements is sometimes distorted and therefore only of limited significance if one-time, non-recurring revenues/expenses have significantly influenced profitability. Therefore, deriving a sustainable EBIT(DA), adjusted for one-time, non-recurring, unusual, non-operational revenues/expenses, is a significant field of analysis. The sustainable EBIT(DA) is an

important basis for company valuation and thus the derivation of the purchase price. The sustainable historical profitability is also used to corroborate the business plan (Pomp, 2018).

Planned Earnings Situation: The focus of the analysis of the planned earnings situation is on identifying the main P&L planning assumptions and examining their plausibility. This also builds on the findings from the analysis of the historical earnings situation. The planned development of profitability is also subjected to sensitivity and/or scenario analysis. Sensitivity analysis shows how the change of a parameter affects the development of EBIT(DA). Scenario analysis presents various scenarios with changed parameters (Pomp, 2018).

Historical Asset Situation: Financial due diligence includes a detailed analysis of the balance sheet for the last historical fiscal year-ends and the current date. The value of individual assets and the appropriateness of the level of liabilities are analyzed. Based on the historical balance sheets, the net financial liabilities/assets are calculated. Net financial liabilities lead to a reduction in the equity value, or net financial assets lead to an increase in the equity value. Thus, net financial liabilities/assets are an essential part of calculating the equity value and the purchase price (Pomp, 2018).

Planned Asset Situation: Based on the analyses of the historical balance sheet, it is examined whether the balance sheet planning presented in the business plan is plausible. It is also analyzed whether the business plan is integrated, i.e., whether the P&L and cash flow planning are coordinated with the balance sheet planning (Pomp, 2018).

Historical Financial Situation: The analysis of the historical financial situation examines the historical development of cash flow. This usually focuses on the Free Cash Flow (FCF). The FCF considers the operational cash flow and the cash flow from investing activities. Thus, the FCF is independent of the company's financing structure. The historical FCF is also sometimes distorted and therefore only of limited significance, as one-time, non-recurring effects may have significantly influenced the historical cash flow. Therefore, deriving a sustainable FCF, adjusted for non-recurring effects, is a significant field of analysis. The sustainable FCF is an essential basis for company valuation, especially for the Discounted Cash Flow method (DCF) (Pomp, 2018).

Planned Financial Situation: The business plan is analyzed to determine whether the planned development of the FCF appears plausible. The analysis of the planned cash flow includes the results of the analysis of the planned P&L and the planned balance sheet. It is also analyzed whether the planned level of investment appears plausible. If risks, weaknesses, or opportunities have been identified during the financial due diligence analysis, the range of impacts of

identified risks, weaknesses, and opportunities on the planned development of the FCF is quantified using sensitivity and scenario analyses (Pomp, 2018).

While this chapter provided a comprehensive overview of the traditional financial due diligence (FDD) process, detailing its objectives and the intricate tasks involved, we must acknowledge a gap in our knowledge of the specific procedures, methods applied in these activities. The M&A sector is known for its non-disclosure nature, which frequently results in the specific methodologies and internal processes of FDD being kept confidential. This lack of transparency contributes to a 'white gap' in our research—a gap we aim to bridge through targeted questions in the expert interviews section of the empirical research later. These interviews are intended to shed light on the nuances of FDD practices, potentially revealing process inefficiencies or areas for improvement that are not immediately apparent from public research. By addressing these gaps, we hope to provide a more complete picture of FDD, contributing to a deeper understanding of its impact on the investment decision-making and the overall outcome of M&A transactions.

3. Scoping of the Business Problem & Working Hypotheses

The formulation of hypotheses in this thesis is a direct consequence of the intricate exploration of the financial due diligence (FDD) process within the M&A landscape, as outlined in the preceding chapters. The hypotheses emerge from a logical progression of identified gaps and potential areas for enhancement in the FDD process.

- H1. The length of the pre-closure phase implies more transaction costs with an overall negative effect on M&A transaction costs.
- H2. The due diligence is by nature of its length one of the more costly phases of the whole transaction. Therefore, there is potential for cost reduction in this phase if it is shortened this phase considerably.
- H3. Information asymmetry and lacking transparency negatively affect the quality of the financial due diligence. This suggests that information access, originality, validity, and actuality are crucial in all underlying (sub) due diligence processes.
- H4. Financial due diligence still offers room for improvement in terms of efficiency and quality, as disaster cases keep coming up. Areas for improvement seem to be the actuality, reliability and quality of data and the reduction of the human error factor. Prevalent systems could represent a “weak link” for financial due diligence as they are not immutable and do not live up modern day requirements of self-validation, automation, security, and real-time

actuality. New technologies and digital systems, such as blockchain systems and applications, may be well suited to mitigate risks and/or alleviate potential inefficiencies.

These hypotheses reflect the broader challenges identified in the M&A process. The empirical section of this research, particularly the expert interviews, will seek to evaluate these hypotheses, with the aim of filling the 'white gaps' in current research and offering deeper insights into the FDD process.

4. Technological Introduction to Blockchains

Since Satoshi Nakamoto's seminal 2008 paper (Nakamoto, 2008), blockchain technology has disrupted digital transactions and data management, catalyzing the development of diverse business applications. This thesis will zero in on blockchains, a specific category within distributed ledger technologies (DLT), to delve into their distinctive attributes and practical applications. We will discuss blockchain's functionality, its decentralized structure, and the trust it establishes among participants. The technical design and architecture of blockchains will be explored, illuminating their foundational layers and operational mechanics. We will also categorize various blockchain types required for business contexts. This chapter aims to offer a clear and succinct overview of blockchain technology and its potential to reshape business operations, while only skimming the surface of technical details to maintain the MBA-centric focus of this paper and avoid overburdening the reader with technical intricacies.

4.1 Functionality & Key Characteristics

Blockchains are closed networks whereby the underlying distributed database (i.e., ledgers) structurally refers to a series of interconnected blocks, each housing a set of records or transactions (Nakamoto, 2008, p. 3). The interconnection of blocks is achieved through cryptographic hashes, creating a chain-like linkage, allowing to view the network's entire transaction history, giving rise to the term "blockchain". Specifically, each block in this chain contains a cryptographic hash of the preceding block, a timestamp, and the transaction data (Nakamoto, 2008, p. 2). One of the key features of blockchains is the irreversibility of transactions: once a block has been added to the chain, the data it contains cannot be altered without changing all subsequent blocks. This feature is often referred to as "immutability". Typically, blockchains are managed by a peer-to-peer (P2P) computer network and serve as a distributed ledger (Nakamoto, 2008, pp. 1,3,8). The nodes in this network follow predefined rules set in the networks' protocol that specifies e.g., the consensus algorithm used to add and validate new blocks of transactions.

4.1.1 Decentralization and trust

A key aspect of blockchains is their decentralization. By virtue of the peer-to-peer (P2P) network across which data is stored some of the risks of centralized data can be avoided, as every node of the chain has a full copy of the whole chain (The Economist, 2015). The quality of data is maintained by computational trust and big-scale database replication (Raval, 2016, pp. 2-7). Logically, with the growth of a decentralized blockchain come increasing risks of centralization as processing of larger data volumes requires an increasingly expensive amount of computational resources.

Ethereum founder Vitalik Buterin identifies three distinct axes of decentralization (Buterin, 2017):

1. Architectural-: Refers to the number of computers (i.e., nodes) making up the system and how many can fail without affecting its overall functionality.
2. Political-: Considers how many individuals/entities have control over the machines that constitute the system.
3. Logical Decentralization: Refers to the way a system's data and interface are structured and presented; its key characteristic is the system's ability to maintain fully functional even if it is split into parts.

According to Buterin each dimension of decentralization is often independent from the others and that a system/network can be decentralized in one way but not another (Buterin, 2017). More generally, it can be said that more independently operating nodes and more participants within the network overall increase the total level of decentralization, hence increasing the degree of trust and neutrality within the network.

In a context of blockchain technology, decentralization can be quantified using the “(minimum) Nakamoto coefficient”, a measure introduced by Leland Lee and Balaji Srinivasan (Lee & Srinivasan, 2017). The measure is named after the pseudonym that published the original Bitcoin paper “Bitcoin: A Peer-to-Peer Electronic Cash System”. It measures the minimum number of independent parties that could collectively disrupt or shut down a blockchain if they were to cooperate (Nakaflow, n.d.) (Lee & Srinivasan, 2017). In PoS networks (such as e.g., Ethereum), the coefficient is characterized by a group of independent node operators that, collectively, control more than one third of all staked assets stored within the network (Lee & Srinivasan, 2017). In other words, networks with a high Nakamoto Coefficient are likely more resilient to cyberattacks, this in turn improves the networks overall censorship- and alteration-resistance (Nakaflow, n.d.).

4.1.2 Closed network

Since blockchains are closed networks, by nature any outside information (i.e., real-world events, information etc.) is not available to the blockchain network. To implement real life use cases, the blockchain needs to be fed outside information (these resources are considered off chain) through bridges or gateways to become available on chain for further use. Generally, oracles are utilized for that purpose, which gives rise to the oracle problem. Further detail about the oracle problem and the functionality of oracles will be provided in Chapter 5.2.3. For now, the notion of a closed network with no inherent ability to receive data and information from other systems and networks, e.g., the (“public”) internet, merely is to be noted.

4.2 Structure & Technical Design of Blockchains

In this chapter, we distill the essence of blockchain technology, emphasizing its role in establishing digital trust through immutability and cryptographic security. We explore the concept of decentralization, including the Nakamoto coefficient for measuring a blockchain's resilience. We then outline the layered structure of blockchain, from foundational hardware to the application interface, highlighting their significance in the networks function and adaptability. Lastly, we briefly differentiate between different types of blockchains, underscoring their distinct features and implications for various sectors.

4.2.1 Design (Layers)

Blockchain’s design usually consists of four or five layers, these are: the hardware infrastructure layer, the data layer, the network layer, the consensus layer and, if applicable, the application layer (Chen, Pendleton, Njilla, & Xu, 2020, pp. 5-7). The latter is not strictly necessary for a complete blockchain computer. However, they are needed if developers wish to deploy programs on top of the consensus layer and have the blockchain computer runs these programs (Marijan & Lal, 2022, pp. 4,6). In the following section of the paper each layer and its purpose and functionality will briefly be illustrated.

Hardware infrastructure layer. This layer is the foundation of blockchain technology (Marijan & Lal, 2022, p. 10). Its purpose is to save chain data on a designated server securely to make it accessible for. It can be thought of as a large network of computational devices communicating and interchanging data or information (Dang, 2022). Typically, blockchains operate on peer-to-peer network architecture where data is shared from digital nodes connecting with each other. The hardware infrastructure layer designates this network of nodes of which enable the

exchange of data and other information that enables the client to connect with other peers and share data (Blockchain Council, 2023).

Data Layer. The data layer essentially refers to the blockchain's data structure. This is where the contents (e.g., information, data) of the chain are stored. The data structure consists of an interlinked chain of transactions that are bundled into "blocks" and uploaded to the chain. All transactions within blocks are digitally signed with the sender's wallet us private key, which is only accessible by the sender whilst ensuring no unauthorized party can view or tamper the block's contents. Furter, the encrypted digital signature also conceals the sender's identity (Blockchain Council, 2023). This combination of characteristics renders the blockchain immutable which means that data stored on a blockchain becomes virtually impossible to tamper with. This situation is known as 'finality' (Dang, 2022).

Network Layer. Also known as P2P- or Propagation Layer, this layer serves the purpose of enabling and handling communication between network nodes. Moreover, the P2P layer drives mainly node discovery and identification, block-related processes such as block propagation and production and transactions in general. In other words, this layer enables nodes to detect peers, share data/ information amongst each other to ensure the blockchain's integrity (Dang, 2022).

Consensus Layer. The consensus layer is the most important of all layers, as it is enabling a, if not the, core functionality of the blockchain (Blockchain Council, 2023): reaching consensus between nodes in a decentralized manner, thus making central authorities obsolete. Summed up the consensus layer manages the whole blockchain protocol. This protocol needs a minimum number of validators (nodes) to verify any operation within the network (Dang, 2022). The currently most prevalent consensus mechanisms/algorithms are Proof of Work, commonly used by cryptocurrency networks such as Bitcoin or Litecoin (Frankenfield, 2023), and Proof of Stake used by the second biggest cryptocurrency by market capitalization, Ethereum.

Application Layer. In this layer are all the programs, scripts, application programming interfaces (APIs), user interfaces, frameworks, smart contracts and dApps (decentralized apps). In short, all programs that users utilize to interact with the network. While the individual interacts with the user-facing application (front-end), the blockchain stack performs in the back (end). Also, the application layer can be further split into the "application" and "execution" layers. Underlying rules, (smart) contracts and blockchain-related code are a part of the execution layer. Generally, an on-chain operation, like a transaction, starts from the application layer and gets validated in the execution layer and executed at the semantic layer (Dang, 2022).

4.2.2 Blocks & Block Time

Blockchains are decentralized, geographically dispersed digital journals, often called ledgers. These ledgers consist of blocks. Blocks consist of batches of verified operations that are then hashed and encoded into a so-called “Merkle tree”. Each block of the chain transmits the cryptographic hash of the previous block, linking the two and creating a chain (The Economist, 2015). This recurring process is what enables the integrity of the previous blocks all the way to the “genesis block” (Tardi, 2021), which is also known as the initial block or “Block 0”. Occasionally, different blocks can be generated simultaneously creating a temporary “fork”. To determine which version the chain should be kept going forward blockchains use a combination of hash-based history and specified scoring algorithms for rating the different version of the chain. The version with the highest score then gets selected over the others. The blocks that are left out of the validated chain are referred to as “orphan blocks” (David & Nirupama, 2015). The block time refers to the average time the network takes to produce an additional block on the chain. Once blocks a is completed the information stored within becomes verifiable, in the use case of cryptocurrencies this is ultimately when the operation or transactions is successfully processed and validated. Hence, shorter block creation times result in faster operations or, in the case of cryptocurrencies, transactions.

4.2.3 Forks & Hard Forks

Forks are the result of blockchains diverging into more than one possible path forward (Coinbase, n.d.). They can either categorized as intentional or coincidental. Coincidental, or accidental, forks emerge when multiple miners produce blocks almost concurrently. In such as case, the fork is temporary and will be resolved when subsequent block(s) are linked to one of the chains, eventually making it become longer than the alternatives and therefore the “best/valid” version of the whole blockchain (Coinbase, n.d.). All blocks that are not included in this newly validated chain (orphan blocks) are abandoned by the network. The intentional forks aim a modifying functionality or rules of the blockchain in question (Binance Academy, 2023). They can be categorized in two main types: hard and soft forks.

Hard forks designate irreversible modifications to the blockchain’s protocol. These changes require all users to upgrade to the newest version of the software to continuously participate in the respective network. After the hard fork, the network remains permanently split into two divergent versions: one chain starts following the new rules and/or modifications from then on, whereas the other version keeps following old rules (Binance Academy, 2023; Coinbase, n.d.).

In contrast, a soft fork is a backward-compatible update to the blockchain protocol that allows for modifications without requiring software upgrades from the network's users. Due to the backward compatibility of soft forks no new, divergent chain paths are created nor is the chain split. This enables a gradual transition to the new protocol rules whilst ensuring sustained compatibility with old rules (Binance Academy, 2023; Coinbase, n.d.).

4.3 Types of Blockchains

As for DLTs, there are different types of blockchains. The main types are the public, the permissioned/private and the federated/consortium blockchain. Additionally, some hybrid variants of the public permissionless and private permitted blockchain exist (Oracle Corp., n.d.; Voshmgir, n.d.). In the following chapter the main types of blockchains and their key characteristics will be briefly summarized.

Public Permissionless Blockchains are completely free of access restrictions. Anyone can operate within the network, initiating and/or validating transactional processes (also referred to as “mining blocks”), provided they have internet connection. Usually these type of blockchains award some monetary incentive for block validation and utilize some consensus algorithm (Voshmgir, n.d.), the most common being proof-of-work, used by the world's largest cryptocurrency Bitcoin, and proof-of-stake, used by the world's 2nd largest cryptocurrency Ethereum (Oracle Corp., n.d.; Vermaak, 2021).

Private Permissioned Blockchains however, only allow invited members to validate, read and write transactions (Oracle Corp., n.d.).

Hybrid blockchains are also possible. They combine characteristics of both previously mentioned types. A possible combination of characteristics could be that reading transactions is public whereas writing and validating would be reserved to invited members (Voshmgir, n.d.).

Consortium/Federated blockchains combine characteristics of both private and public blockchains. As Oracle puts it: a blockchain network “[...] where the consensus process (mining process) is closely controlled by a preselected set of nodes or by a preselected number of stakeholders.” (Oracle Corp., n.d.). The consortium, usually a group of people or organizations, jointly manages the network and verifies operations, rather than a single entity. Typically, federated blockchains are permissioned, meaning participation is invitational only, to allow for a greater level of control over access rights and the confidentiality of sensitive data (CoinMarketCap, n.d.). This type of blockchain is commonly used in sectors that require coordinated efforts of multiple entities towards a mutual goal, e.g., in logistics, supply chain or financial services (Virmani, 2018).

5. Blockchains' Potential from A Business Perspective

This chapter explores the intersection of blockchain technology and business, pinpointing where it adds value in a business context and its potential for future use. We focus on relevant use cases such as the rise of asset tokenization, the automation of contracts through smart contracts and identity verification, while noting the legal and regulatory complexities involved. Readers will gain insight into the actionable benefits of blockchain technology in a business context, the obstacles to its integration, and the progress being made to overcome these challenges.

5.1 Uses Cases for Blockchains in A Business Context.

Blockchains can be used and implemented in a variety of ways. The following chapter will highlight some of the main promising areas where blockchain technology has proven to add value or is expected to do so in the future. For the sake of the scope of this work we will limit the selection of use cases is tied to application areas that have to be (at least) situations remotely linked to the topic overarching research question of this paper.

Cryptocurrencies. Since its inception with the bitcoin network in 2008 the primary use case for blockchain technology has mainly revolved around providing a digital distributed ledger for cryptocurrencies, as most cryptocurrencies. In other words, the blockchain's underlying cryptography and distributed consensus mechanism help to provide an infrastructure in a trustless digital environment to conduct monetary transactions in a digital environment. This application area has been picked up by Governments around the globe (Atlantic Council, n.d.) that strive to use blockchain technology to establish their respective national digital currency (European Central Bank (ECB), n.d.; Jones, 2023). Therefore, the primary utilization of cryptocurrencies are remittances and the blockchain enables an alternative trustless payment rail.

(Asset) Tokenization. Within the scope of this work, tokenization refers the process by which an asset, tangible or intangible, is represented by a (digital) token that serves as a digital representation of the asset's underlying worth. Besides digital value, the token can include information about ownership, rights, and obligations as well. While the concept of tokenization is not new, the properties of blockchain allow for new business use cases. Tokenization and real-world asset tokenization more specifically will be analyzed in depth at a later stage of this paper.

Smart Contracts. Smart contracts are blockchain-based computer programs. They can be executed fully or partially autonomously (Franco, 2014, p. 9) and are considered lawful contracts in several countries (Zheng, 2022). One key characteristic of smart contracts is that they do not

require a trusted third party acting as an intermediary between the contracting parties, as the respective blockchain's protocol executes the contract on its own (Binance Academy, n.d.). Smart contracts therefore reduce friction and moral hazard between contracting parties, as well as optimize the use of contracts in general, e.g., using extensive automation (Binance Academy, n.d.). Additionally, it must be added, that while smart contracts can be executed partially/fully autonomously, they do not operate fully autonomously. This means that they need to be triggered by an event/person (or similar). For that, they usually require external data (i.e., data from other systems/networks than the one the smart contract is running and executing on.

Institutional Financial Services. Major financial institutions openly expressed interest in implementing blockchain technology for use in banking (Smith, 2023) and financial services more generally (Centre for Finance, Technology and Entrepreneurship (CFTE), n.d.) (Enterprise Ethereum Alliance, 2023, p. 4). According to an IBM survey “areas most commonly identified by lenders as ripe for blockchain-based innovation were clearing and settlement, wholesale payments, equity and debt issuance and reference data.” (Kelly, 2016). Additionally, the technology enhances the banks' operational efficiency by accelerating processes, systems and reduce costs overall (Arnold, 2016; Kelly, 2016; Kelly2, 2016). It is important to clarify that the interest and potential applications of blockchain technology by major financial institutions, as mentioned, are primarily focused on improving institutional backend processes. This focus is distinct from the realm of decentralized finance (DeFi) or direct-to-consumer (D2C) financial services, which operate on different principles and cater to a different segment of the financial ecosystem. Lastly, the rise of the blockchains brought upon a new type of digital assets: STOs (security token offerings, sometimes also called DSOs – digital security offerings). STOs may be undertaken in private as well as on regulated public stock exchanges. They are used to tokenize assets such as company shares, art, intellectual property of real estate.

Identity Verification: Self-sovereign Identities. The emergence of blockchain technology has enabled the development of SSIs (self-sovereign identities). SSIs are a new, more resilient type of identity management system that is user-controlled (Ozair, 2023). SSIs have the potential to greatly impact the way identities are managed in a digital context like the internet.

SSI builds on three core technological concepts, which are:

- Blockchains: an immutable, decentralized P2P-network as technological infrastructure. Although not strictly necessary (German Federal Office for Information Security, 2022, p. 4) it is often the preferred solution (Wood, 2019). Decentralization ensures that there is no central database storing the information that could be a single point of failure or a target for cyberattacks (Powell, 2023) (Raval, 2016, p. 7).

- DIDs (decentralized identifiers): a tool self-verification on the internet that does not depend on centralized institutions or companies. Individuals create and manage their own identifiers. They are unique to each individual/entity and do not require validation by a central authority (World Wide Web Consortium (W3C), 2022).
- VCs (verifiable credentials): digital, securely encrypted versions of credentials, digitally signed by the issuing institution, that holders can show verifiers. Users store their credentials in digital wallets and have full autonomy over who they share their data with. In any case the actual data is never revealed, the proof of a credential is usually provided using cryptographic techniques (e.g., zero-knowledge proofs) (World Wide Web Consortium (W3C), 2024).

In an SSI system there are three main involved parties: holders, issuers, and verifiers. This relationship triangle is often also called the “Trust triangle” (Pohlmann, n.d.) (F., 2023). The holder is one who creates DIDs and receives VCs. The issuer refers to whatever party that has the authority to issue VCs. Lastly, the verifier is the one checking the credential (Pohlmann, n.d.). The difference to prevalent identity models is that the SSI model identifies individuals or entities via direct P2P connection that is secured by key cryptography. In that way, sharing personal information is done on a consent basis. Users can always give or revoke access to their data as they please.

Supply Chain. There are exhaustive on-going efforts to utilize blockchains in the supply chain (management) industry. The most notable examples come from precious commodities mining (Nash, 2016; Wharton School of the University of Pennsylvania, 2019), food supply (Corkery & Popper, 2018) and the fashion industry (DeAcetis, 2021) (DeAcetis#2, 2021). With regards to due diligence, supply chain finance stands out a field which has gained attention and seen ramping up adoption of blockchain technology (Vela, 2023). The areas which seem most likely to be improved by virtue of blockchains key characteristics are: efficiency, transparency, and security (Vela, 2023) (Rijanto, 2021, p. 3096). Hereunder, some brief examples illustrate how the use of blockchain impacts supply chain finance, which in turn directly affects accounting and thus finally, financial due diligence. First, the use of an immutable and transparent ledger ensures that transactions of any kind are recorded in an unchangeable, indisputable manner. This is especially important with respect to invoices, approvals, and payments. It allows all parties to independently review transaction status and history, potentially reducing the risk of fraud or legal issues (Vela, 2023) (Ioannou & Guven, 2022, pp. 96,100). Additionally, decentralization and the implementation of smart contracts, as stated before, reduce the need for intermediaries and, more generally, human intervention (Ioannou & Guven, 2022, pp. 95-96,100). This may well be suitable to further decrease transaction costs and processing time (Ioannou &

Guven, 2022, pp. 95-96,100) (Vela, 2023). Another key benefit of utilizing blockchain technology in supply chain finance is security. The robust cryptographic security inherent in blockchain technology ensures the protection of confidential financial data (Ioannou & Guven, 2022, pp. 96, 100), such as invoices, payment directives, and supplier/vendor details. This safeguard acts as a deterrent against fraudulent activities, cyber-attacks, and illicit access, thereby bolstering the security of Supply Chain Finance (SCF) (Vela, 2023). Moreover, blockchain enables a (near) real-time view on the flow of goods within the supply chain (Ioannou & Guven, 2022, pp. 95,100). This allows for improved inventory management (Ioannou & Guven, 2022, pp. 96, 100) (Rijanto, 2021, pp. 3094-3096). That in turn directly affect a firm's financials. Also, the provenance of goods can be tracked in industries with strict regulation (e.g., pharmaceutical industry) (Vela, 2023). Lastly, by offering a standardized, safe platform for international trade, blockchain technology simplifies the intricacies and diminishes the expenses linked to currency exchange, intermediary financial services, and diverse regulatory standards. Optionally, smart contracts can facilitate the automatic management of currency exchanges and adherence to global regulations (Ioannou & Guven, 2022, pp. 95-96,100).

5.2 Current State of Blockchain Adoption in A Business Context

As established in the previous chapter there are multiple use cases for blockchain technology. However, it is important to also look at potential drawbacks of the technology to assess whether it is sensible for companies to adopt this technology for operations in an enterprise-to-enterprise context. This section will focus on the Ethereum/EVM environment, to get an overview on existing projects using Ethereum/EVM technology, by industry, refer to Figure 3 on the next page.

Projects by Industry Using Ethereum / EVM Technology



Figure 3: Projects using Ethereum/EVM Technology, by Industry (Enterprise Ethereum Alliance, 2023, p. 18).

5.2.1 The Blockchain Trilemma

To provide a framework for assessing the current state of blockchain enterprise adoption it is necessary to introduce the “Blockchain (or scalability) Trilemma”. The Blockchain Trilemma is a concept introduced by Ethereum founder Vitalik Buterin (Hafid, Hafid, & Samih, 2020, p. 125244). It denotes three main challenges in designing blockchain networks. The concept can somewhat be compared to the so-called “Iron Triangle” (Roger, 1999), which contends that:

1. The quality of output depends on three main features (scope, time, and cost).
2. The project manager can trade between constraints.
3. Any change in one constraint necessitates a rebalance of the other dimensions or the overall outcome’s quality will decrease.

In the case of the scalability trilemma the model contends that (Hafid, Hafid, & Samih, 2020, p. 125244) (Schaaf, Rezabek, & Kinkelin, 2021, pp. 64-65):

1. The network can be customized by balancing out its network characteristics (scalability, decentralization, and security).
2. The developer can trade between constraints.
3. Any change in one constraint necessitates a rebalance of the other dimensions or the overall outcome’s quality will decrease.

Traditionally, the consensus is that blockchains and other DLTs can only maximize two out of the three network characteristics of the blockchain trilemma at any given time. To assess the business readiness of the Ethereum network this body of work will briefly summarize each of the network characteristics’ key challenges and current developments in the subsequent paragraphs.

5.2.2 Scalability

In an enterprise context scalability is traditionally viewed as crucial hurdle for the adoption of Ethereum blockchains for business applications (Enterprise Ethereum Alliance, 2023, p. 26). The main obstacles regarding the scalability dimensions encompass the sub-categories: *cost*, *performance*, and *sustainability* (in terms of energy efficiency).

Cost. As with most business decisions, a major factor is cost (Golosova & Romanovs, 2018). Implementing a new, blockchain-based network requires intensive capital investments up front (Niranjanamurthy, Nithya, & Jagannatha, 2018, p. 13; Budhi, 2022).

Performance. As stated in above, the performance aspect of blockchains depends on several variables, amongst these, the most prominent are the type of goal/task envisioned, the type of blockchain, and the type of consensus mechanism. However, generally it can be said that that blockchain networks perform more operations per transaction and are therefore slower than traditional centralized databases (Budhi, 2022). This is due to key characteristics of blockchain transactions such as signature verification, transaction validation (via consensus mechanism) and inherent redundancy, as multiple nodes are required to verify, validate, and record each operation on the chain.

Sustainability. The sustainability aspect is another issue that, especially in the wake of increasingly socially and environmentally responsible societies (and therefore companies), has been viewed as pivotal for the adoption of blockchain technology. And while it is true that the pioneer bitcoin-blockchain is immensely energy inefficient, that cannot be said of all blockchains. First of all, the consensus mechanism of bitcoin and Ethereum differ. While Bitcoin is still utilizing a PoW consensus mechanism that is known for exhaustive energy requirements, Ethereum switched to PoS which drastically cut the network's annual energy consumption (Enterprise Ethereum Alliance, 2023, p. 27). The transition to PoS reduced Ethereum's carbon footprint by staggering 99,99%, Ethereum's network is now consuming less energy annually than payment platform PayPal and well in line with its ESG goals. In sum, the EEA claims that "Ethereum has solved its sustainability issues" (Enterprise Ethereum Alliance, 2023, p. 25) or as Vikram Seth (Head of Blockchain and Web3 at Shell) puts it "The switch to Proof-of-Stake makes things a lot more viable from a narrative perspective. It kills the argument that blockchains are energy intensive. That makes it easier for businesses to adopt." (Enterprise Ethereum Alliance, 2023, p. 25).

Conclusion. While all scalability-related issues are not yet fully resolved, there has been substantial progress in terms of operational speed and transactions cost, leading to a better understanding of operational benefits for businesses. Notable developments regarding scalability include progress in Layer 2 (rollups & zkEVM) that enhanced overall speed and cost efficiency. Moreover, the Nightfall protocol (developed by EY) has shown promising results in tests: it can compute between 40 and 400 million transactions a day, depending on the network, the companies roadmap plans to scale the transaction volume up to roughly 4 billion daily transaction priced at below 0.01 USD each (Enterprise Ethereum Alliance, 2023, p. 26). Lastly must be noted that the Ethereum Mainnet and all Layers are under constant development and regularly updated. As scalability is a major challenge for EVM adoption, scalability enhancements are tackled through updates. The most relevant coming update is the EIP-4844. It will introduce

“proto-danksharding”, a feature that has been designed specifically to improve transaction throughput and reduce transactional and gas-related fees (Enterprise Ethereum Alliance, 2023, p. 27). As stated, to begin with scalability remains a pivotal obstacle. However, the Ethereum community has recognized and actively targeted issue. Major milestones like switching to a PoS consensus progress have accelerated adoption and scalability improvements continue to be in the focus of the developing community.

5.2.3 Decentralization and the “Off-/On-chain” or “Oracle problem”

The network characteristic decentralization is what makes blockchains more secure and immutable than other networks. Since records are stored on a distributed ledger where each nodes have a full copy of the complete chain, a single point of failure can virtually be eliminated and tampering with records becomes possible only in very limited cases of cyberattacks. More detail on the blockchains’ network security can be found in the subsequent Chapter (5.2.4). With regards to the network characteristic of decentralization, the ability of blockchains to process real world events and resulting data as well as communicating with existing off-chain systems remains a crucial hurdle for blockchain adoption in an enterprise context. As stated previously, blockchain is a closed P2P-Network. That means, that the network has no direct connection to the internet or any other participant that is not on the blockchain network. However, to utilize blockchain for real-life use cases the off-chain data/information/asset (whatever is underlying) this data needs to be brought onto the chain in question or at least communicated/transferred to it. This leads us to the notion of oracles mentioned earlier. To recall, oracles can be defined a bridge between blockchains and external data sources. Additionally, it verifies, validates, and authenticates the data it transfers (Binance Academy, n.d.; Ethereum, 2023). Oracles are essential for smart contracts as they provide crucial information with a maximum degree of reliability. However, this fact also leads to the so-called “Oracle Problem”. As the oracles have major influences on the execution/management of smart contracts, a conflict of trust that centralized oracles bring to initially zero-trust blockchains emerges (Binance Academy, n.d.; Ethereum, 2023).

In summary, solving this inherent problem is crucial for use cases that necessitate knowledge of real-life events and data happening off chain. Hence, decentralized oracles such as Chainlink have been developed to mitigate this issue by providing a bridge to off chain events/information, while still offering the sought-after security aspects of blockchains (Chainlink, 2023). To date, Chainlink is widely considered as industry standard oracle solution and has processed over \$9 trillion in transactional value with its platform (Chainlink, 2023). It seems fair to say

that this could be seen as enterprise-wide adoption, especially since there is a plethora of other decentralized oracle providers (Ethereum, 2023). While concerns about security about oracles can never be fully neglected, successful projects for renown clients (Chainlink, n.d.) suggest that the business model and use case of Chainlink and other providers is viable and functioning well.

5.2.4 Security

As established earlier, the security of a blockchain network depends significantly on its degree of decentralization in all its three forms: architectural-, political and logical decentralization and the total number of nodes and participants. Generally, it can be said that the higher the degree of decentralization and number of total nodes and participants, the higher the networks overall security as it becomes harder for a single malicious entity to take over control of the blockchain (i.e., a 51% attack) (Tamplin, 2023). Still, it is not fully true that blockchains are fully immutable or secure. In the subsequent chapter a summary of the major four security threats for blockchains (Alabdulkarim, 2023) will be provided, they are:

1. Threats arising from the consensus algorithm in place,
2. Privacy and/or confidentiality threats,
3. Compromised private keys and,
4. Threats regarding smart contracts

Consensus algorithm threats refer to attacks that try to exploit the consensus protocol to take over control of a blockchain network, the most famous are the 51% attack as well as selfish mining (Alabdulkarim, 2023) (Bao, Li, Hu, & Sun, 2023). The subject of privacy and confidentiality attacks has been covered in the previous chapter. Compromised private keys refer to scenarios in which a participants' key, that blockchains utilize to verify a user's identity, is compromised. In these scenarios the attacker gains control over the user's account(s) and connected assets or wealth by comprising the private key. A notable example is an attack on crypto exchange Coincheck in 2017 that result in roughly \$500 million damages (Cheng, 2018) (Romero, 2018). Lastly, smart contracts threats refer to faulty smart contracts that may either be exploited by attackers or just execute badly due to bad inputs (i.e., programing, lacking data quality etc.) (Alabdulkarim, 2023). Privacy threats have already been covered previously. Lastly, the author wants to stress the notion that security is, as described by the blockchain trilemma, inherently intertwined with the two other network characteristics: scalability and

decentralization. Logically, improving one of the network characteristics may require a compromise regarding the one or both other two characteristics.

5.2.5 Regulatory Concerns

In terms of regulation there are two main concerns (Enterprise Ethereum Alliance, 2023, p. 30). Firstly, a more general concern on how crypto assets, -securities and -services should be regulated within economic zones (i.e., the EU). The efforts of regulators aim at providing more clarity and certainty to investors. Additionally, especially within the EU, there are concerns about privacy (Enterprise Ethereum Alliance, 2023, p. 30) in terms of GDPR compliance. Both these issues and how they are being addressed will be examined in the subsequent paragraphs.

Data Privacy. Another regulatory concern hindering adoption is the compliance with privacy regulation (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1790). This is especially true for the EU as the GDPR (Regulation (EU) 2016/679, 2016) is one of the stricter privacy regulations in effect globally. The reason privacy is a big concern for the adoption of blockchain technology is because innately data cannot be deleted from a blockchain, due to its design and technical characteristics. This fact paired with the transparent nature of blockchains by design conflict with data protection policies and regulation (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1790). One example is the article 17 of the GDPR that mandates that individuals falling under the application of the GDPR have the “right to be forgotten” (Regulation (EU) 2016/679, 2016, Section 2 Article 17) which is defined as follows:

The data subject shall have the right to obtain from the controller the erasure of personal data concerning him or her without undue delay and the controller shall have the obligation to erase personal data without undue delay where one of the following grounds applies [...].
(EU) 2016/679, 2016, Section 2 Article 17)

This means that any blockchain operating within the EU or processing EU citizens’ personal data needs to put in place measures that allow for the deletion of personal data, if requested. However, this contradicts the inherently carried value proposition of blockchain’s immutability characteristic, leading to the transparency challenge of blockchains.

The Transparency Challenge. The transparency challenge focusses on the trade-off between transparency and efficiency in public permissionless blockchains (Sedlmeir, Lautenschlager,

Fridgen, & Urbach, 2022, p. 1783). It arises from the fact that public permissionless blockchains store and disseminate every transaction to all nodes, which ensures fault-tolerance and trust (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1783). However, this also means sensitive information is exposed, which can be problematic for personal data privacy and business secrets. Transparency has been less of an issue in cryptocurrencies but poses significant challenges in decentralized finance (DeFi) due to the potential for profit by manipulating transaction order. This can lead to regulatory issues and security risks. The transparency required by blockchains can conflict with data policies, customer expectations, and regulations like the GDPR, as described earlier (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, pp. 1783-1786). While blockchain can streamline processes through verifiable personal information, the GDPR's "right to be forgotten" poses a dilemma since deleting data from a blockchain is technically impossible (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, pp. 1783-1786). The replication of data across multiple nodes also raises questions about privacy by default and purpose limitation (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, pp. 1783-1786). Therefore, there is a fundamental trade-off between the efficiency gains from automating processes on a blockchain and the risks of excessive data visibility (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, pp. 1783-1786). This trade-off is considered fundamental because, unlike other challenges, data visibility is binary: data is either on the blockchain or not. The privacy challenge is an economic version of the trade-off between Turing-complete smart contracts and data confidentiality. In summary, while blockchains offer significant benefits for fault-tolerance and trust, they also pose substantial challenges for privacy and data protection, particularly when it comes to sensitive personal and business information (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, pp. 1783-1786). The trade-off between transparency and efficiency is a core issue that needs to be addressed for broader blockchain adoption.

One way to mitigate the concerns could be by the move the data off chain (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1790). However, this would also compromise functionality and increase complexity, especially if smart contracts are involved. Another possible remedy could be decentralized digital identities, as they provide pivotal benefits: selective disclosure, which in turn enables more efficient and granular verification and authorization processes. This in turn could positively impact the way sensitive data is shared, especially in cases where data or other type of information needs to be exchanged reciprocally (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1790) and supplemented further (i.e., for transparency or auditability). The advent of SSI seems likely to play a crucial role in the adoption of blockchain technology as mentioned before. More generally, it seems that ultimately innovative computational techniques focused on enhancing privacy (i.e., Zero-Knowledge-Proofs) and

allowing for selective disclosure while keeping the actual data hidden are like to become central element in business blockchain applications (Sedlmeir, Lautenschlager, Fridgen, & Urbach, 2022, p. 1790).

All in all, progress, albeit slow, is being made and privacy-oriented technologies continue to mature (Enterprise Ethereum Alliance, 2023, p. 3). Nonetheless, privacy and the transparency challenge remain priority obstacles for the adoption of blockchain technology in business.

Financial securities. The main challenge with regards to the dimension of security that is currently hindering widespread business adoption is regulatory uncertainty (Niranjanamurthy, Nithya, & Jagannatha, 2018, p. 13) and regulatory bodies in general. Efforts are made on a regional level (e.g., a specific economic or political area e.g., EU, US), but are not yet harmonized or standardized. More recently, there were two notable developments in the blockchain and crypto industry. Firstly, the efforts to regulate the industry by the United States. Secondly, in mid-2023 the Markets in Crypto-Assets Regulation (MiCA) came into force in the European Union (Enterprise Ethereum Alliance, 2023, pp. 8-9). Yet it must be noted that it is important to distinguish regulation aiming at reducing fraud/insecurity in the cryptocurrency markets, as pursued by the SEC and legislation that tries to provide a more generic ruleset regarding the use of blockchain technology and/or digital assets within a political area such as the EU did with MiCA. In the light of the FTX exchange scandal the US chose to clamp down hard on crypto, while the regulatory bodies of the EU try to create more clarity by establishing a harmonized regulatory framework for digital assets and other crypto-related services. From an overall perspective, benefits of blockchain technology as well as the need for regulatory certainty has been recognized by governments and regulators (Enterprise Ethereum Alliance, 2023, pp. 8-9). However, the underlying regulatory procedures are slow and have proven to be controversial (George, 2023).

In sum, the regulatory aspect remains a central hurdle for the adoption of blockchain technology. Albeit being slow, there is progress across the globe. Fundamental milestones were achieved in Europe and a general sentiment suggest a trend towards understanding, acceptance, and adoption of the plethora of blockchain business use cases.

5.3 Concluding Assessment: The State of Blockchain Technology Adoption

We find that while the blockchain trilemma is not yet, and might never be, fully solved, major progress has been made in each of the three dimensions. The sustainability issue has been eliminated the moment the network switched to PoS while simultaneously massively improving

transaction speed, -cost and -throughput. The latter will be improved further with future updates. Regulatory bodies and the political landscape are making progress on a global level, albeit being sluggish and without harmonized standards. The degree of progress generally varies geographically, the EU achieved a major milestone with the coming into force of MiCA, clarifying the ruleset for crypto-assets and -services. In terms of decentralization, interoperability between the closed blockchain network and off-chain events, data, systems is still a major requirement. However, the landscape of decentralized oracles has reached full-scale business readiness and enterprise-level adoption seems imminent if not already on-going.

In brief, it seems as if technology is reaching a pivotal point of maturity, where adoption in terms of face value growth (partially due to scandals like FTX and the resulting “crypto winter”) slowed down, but real business value starts to be put onto Ethereum blockchains in enterprise contexts.

6. Introduction to Blockchain Tokenization in A Business Context

This chapter explores tokenization's vital role in evolving business practices, where digitizing assets, information and/or data via blockchain enhances liquidity, transparency, reliability, and access. Beyond its technical aspects, tokenization is reshaping finance, necessitating an understanding aligned with evolving regulations like the EU's MiCA. Tokenization connects traditional finance to DeFi, offering market efficiency and open investment access. We will examine RWA tokenization, the role of decentralized oracles, and new standards aiding this shift. We conclude by assessing RWA tokenization's adoption, its growth, and enterprise recognition, highlighting tokenization as a driver of financial innovation and a shift towards a transparent, efficient, and inclusive digital asset economy.

6.1 Definition of Tokenization

According to Gartner, tokenization in information technology generally “[...] refers to a process by which a piece of sensitive data, such as a credit card number, is replaced by a surrogate value known as a token.” (Gartner, Inc., n.d.). The Cambridge Dictionary defines tokenization (in computing) as follows: “the process of replacing a private piece of data with a token (= a different piece of data that represents the first one), in order to prevent private information being seen by someone who is not allowed to do so” (Cambridge Dictionary, n.d.).

In finance and securities law tokenization is the trend to digitize financial products as crypto assets and map them on a blockchain as decentralized stored assets (Bundesanstalt für

Finanzdienstleistungsaufsicht (BaFin), 2019). The popular price-tracking website for crypto assets “CoinMarketCap” includes the notion that tokenization does not only apply to intangible assets, e.g., data, but also to real-world assets: “The process by which real-world assets are turned into something of digital value called a token, often subsequently able to offer ownership of parts of this asset to different owners.”. These real-world assets can be everything ranging from real estate to art or percentages of ownership in a company (Coinmarketcap, n.d.). To discuss the proposed hypothesis that the use of blockchain technology in combination with tokenization may enhance the efficiency of M&A deals, the author will go forward referring to tokenization as: the process by which an asset, tangible or intangible, or data/information is replaced by a (digital) token that translates the asset’s worth into digital value and includes information about ownership, rights, and obligations (etc.).

6.2 Regulatory Landscape: Types of Tokens Under MiCA (EU Regulation)

In the realm of DLTs, blockchains and cryptocurrencies the general term “token” can be further be subdivided in three categories, based on the purpose of its use. Distinctions are made between “payment”, “asset” and “utility tokens”. Any of these tokens differ in their legal basis and are designed with divergent underlying features (Meinzer, 2022). Depending on the source these categories may have slightly different names. However, the base purpose they serve remains the same.

Due to the on-going insecurities (Hermans, et al., 2022) regarding the regulation and safety of cryptocurrencies other crypto-assets or related services and to provide a consistent and comparable knowledge base, this paper will refer to the European Union’s Regulation 2023/1114 (Regulation (EU) 2023/1114, 2023), further referred to as “MiCA” for definitions and as regulatory framework. MiCA came into effect on June 29th, 2023, and will apply from end of December 2024, with some exceptions (Titles III and IV). The regulation establishes an EU wide regulatory framework for all crypto-related assets, currencies and services (Häring, Wöckener, & Freudenberger, 2023) (Regulation (EU) 2023/1114, 2023, Title I Article 1) (Deutsche Bundesbank, 2023). MiCA defines crypto assets as “[...] a digital representation of a value or of a right that is able to be transferred and stored electronically using distributed ledger technology or similar technology” (Regulation (EU) 2023/1114, 2023, Title I Article 3(5)). Similar to Ernst & Young the regulation distinguishes between three main types of crypto-asset-tokens: asset-referenced token (ARTs), electronic-money/e-money-tokens (EMTs) and utility tokens (Häring, Wöckener, & Freudenberger, 2023) (Regulation (EU) 2023/1114, 2023, Title I Article 3(6,7,9)). These tokens are defined as follows: ARTs depict crypto assets that are not EMTs

“and that purport[s] to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies” (Regulation (EU) 2023/1114, 2023, Title I Article Article 3(6)). EMTs are crypto assets that “purport[s] to maintain a stable value by referencing the value of one official currency”, whereas an official currency refers to “an official currency of a country that is issued by a central bank or other monetary authority”. More broadly, “ARTs and EMTs are the so-called stable coins that are meant to maintain a stable value by referencing to other values, or a combination thereof” (Häring, Wöckener, & Freudenberger, 2023). Finally, utility tokens are “a type of crypto asset that is only intended to provide access to a good or a service supplied by its issuer” (Regulation (EU) 2023/1114, 2023, Title I Article 3(7,8,9)). Additionally, the regulation establishes the concept of so-called “significant tokens” for ARTs and EMTs. Tokens classified as significant automatically call for the application of stricter and additional requirements for the issuers of such assets, their classification will be performed by the European Banking Authority (EBA) (Häring, Wöckener, & Freudenberger, 2023).

6.3. Real-world Asset (RWA) Tokenization

Concurring with the previous definition of tokenization in the finance and law environment in the chapter on tokenization, Binance Research defines real-world assets (RWAs) as “assets that exist off-chain but are tokenized and brought on-chain to be used as a source of yield within DeFi. RWAs can represent many kinds of traditional assets such as commercial real estate, bonds, cars, and almost any other store of value that can be properly tokenized and accounted for” (Naggar, 2023, p. 4). In other words, RWAs can be tangible as well as intangible assets.

Having defined the tokenization of RWAs this work now analyses the purpose behind the tokenization of real-world assets. Particularly interesting is the fact that, while there are some triggers and short-term benefits accelerating the adoption of RWA tokenization, the main potential lies in the long-term. As Binance Research suggests “DeFi will offer unique opportunities and market efficiencies to asset holders, which cannot be found in traditional financial systems.” (Naggar, 2023, pp. 5-6). This is mainly due to the nature of traditional finance systems (TradFi) which rely heavily on intermediation systems, entailing background and compliance checks, regulations, and further intermediaries, amongst others. Even though these systems are effective in instilling and/or maintaining control and security, they hamper the overall market efficiency and restrict access to opportunities for asset holders.

Market Efficiency. Decentralized finance (DeFi) may prove useful to alleviate some of the inefficiency issues that come with TradFi because it minimizes or eliminates completely the intermediation systems prevalent in TradFi. Therefore, DeFi systems could marginally improve overall market efficiency and increase investor's access to thus far concealed/inaccessible opportunities (Naggar, 2023, p. 6) The improved efficiency of DeFi systems has been examined by the IMF as part of the "2022 Global Financial Stability Report". The key finding is that the DeFi approach results in substantial cost savings as compared to TradFi. The main factors for that are reduced operational expenses and a reduced need for labor.

Democratization of information and assets access. Additionally, blockchain technology paired with tokenization allows for a democratization of information and investment opportunity access. In other words, due to the ability to fragment value and spread risk exposure using digital tokens, previously hardly accessible markets and investments opportunities now are available to a new class of (often smaller) investors (Naggar, 2023, p. 7). Moreover, due to the inherent transparency of blockchains, access to information is also improved for market participants, as information that tends to be hidden in TradFi (e.g., flows of funds, prices, asset ownership) is naturally publicly available (Naggar, 2023, p. 7). As stated before, one of the main obstacles of blockchain technology is to process events and data that are not on-chain, the so-called "Oracle Problem". This is logically also true for real world assets. It is therefore vital to understand how real-world assets are tokenized.

First the RWA In question must be formalized off-chain (Naggar, 2023, pp. 8-10). This is done to clarify asset ownership, rights, and responsibilities its worth and other key information. Thereafter, the formalized information collected must be brought onto the blockchain. This is usually done through tokenization, the collected data gets translated into code and is included in the metadata of a digital token (Naggar, 2023, pp. 8-10). Depending on the asset different token types are used for which different proposals to create standards have been made. For example, for assets subject to some form of regulation (e.g., securities) specific technologies are in place to onboard these in a compliant manner. To gather the external data required to tokenize RWAs and bring them on-chain decentralized oracles are typically used (Naggar, 2023, pp. 8-10). As mentioned earlier, Chainlink seems to have emerged as industry leader in that domain. Lastly, it can be said that protocols specializing in RWA tokenization services are often both starting point and marketplace for RWA products, thus influencing immensely the entire supply and demand (Naggar, 2023, pp. 8-10).

6.4 Concluding Assessment: The State of RWA Tokenization Adoption.

As asset tokenization is an essential step of bringing off-chain assets on-chain, it is not surprising that this application is the most sought-after across all business sectors (Enterprise Ethereum Alliance, 2023, pp. 25-26). Currently EVM is the preferred environment for asset tokenization (Enterprise Ethereum Alliance, 2023, p. 33). To put it in the words of the EEA “Tokenization seems here to stay” (Enterprise Ethereum Alliance, 2023, p. 4). It seems fair to say that tokenization, and more specifically the tokenization of assets, has been recognized as an important use case with the potential to have major implications in an enterprise context (Enterprise Ethereum Alliance, 2023, p. 5). This notion is reflected in a 600% AGR in the market for tokenized US treasuries in 2023 (Enterprise Ethereum Alliance, 2023, p. 16) and a massive gain in momentum for this use case with enterprises and institutions alike. TradFi institutions are already harnessing the advantages of tokenized assets which include instantaneous transaction settlement and 24/7 trading. Further, governments utilize public blockchains to improve corporate transparency and shareholder management (further details in BRØK case study) (Enterprise Ethereum Alliance, 2023, p. 33), while real-estate companies like Blocksquare facilitate transactions utilizes the ERC-20 token standard (Enterprise Ethereum Alliance, 2023, p. 34). Both business cases will be examined in further detail in the subsequent chapter.

In summary, it can be said that the trend of tokenization is well underway. First business applications are reaching enterprise maturity and intuitions and governing bodies have recognized this trend and acted accordingly. So far, the EVM environment has emerged as leading network with regards to tokenization but also business adoption in general. The trend is being reflected by the increase in on-chain business value within the last year (Enterprise Ethereum Alliance, 2023, p. 56). Further, it can be speculated that ESG regulatory frameworks may additionally fuel adoption, if sensible (Enterprise Ethereum Alliance, 2023, pp. 25-26).

7. Active Business Cases: Blockchain-Based Tokenization in Business Operations And M&A

This chapter provides an overview of selected blockchain-based tokenization applications in traditional business operations and M&A. Each of these descriptive cases show how the utilization of blockchain technology and tokenization impacts their respective area of business operations. The business operations have been selected based on their relatedness to traditional (digital) M&A business operations as to show that there is in fact potential to optimize business operations within an M&A transaction. However, since the developments in RWA tokenization

and blockchain in general are still relatively nascent there are few examples that are explicitly tailored to the M&A sector (see Acquire.fi).

7.1 EY- Blockchain-based Continuous Business Operations Platform

Another blockchain-based SaaS-platform that is changing the accounting and auditing landscape is the EY Blockchain's SaaS platform Blockchain.ey.com.

On its platform EY offers a plethora of solutions utilizing blockchain technology supporting various aspects of the complete business lifecycle (EY, n.d.). The main offerings offered by EY are EY OpsChain and EY Blockchain Analyzer. Both solutions utilize "Nightfall", an Optimistic Zero-Knowledge Roll-up developed by EY and Polygon to enable private transactions within the public Ethereum network (EY, n.d.). The EY OpsChain platform enables companies to interact with their suppliers, customer, and other business partners via blockchains. Its main functions facilitate the following business operations:

EY OpsChain Contract Manager allows its users to engage in procurement activities such as invoicing, quote requests, contract issuance, purchase agreements across their network of business partners (EY#2, n.d.). Microsoft and the Chinese government agency for power and utilities are the largest clients to date (EY#3, 2020).

- **Benefits:** increased transparency, reduction of manual consolidation of data, automated contract execution, increased data and analytics validity and accuracy, one single immutable truth can be leveraged for authorized stakeholders, overall increase in efficiency of negotiation and local execution, provides siloed systems in one environment. (EY#2, n.d.).
- **Users:** Microsoft, China power and utility company (EY#3, 2020)

EY OpsChain Traceability allows companies to ameliorate transparency and tracking of tangible or intangible goods (e.g., food or data) along a (supply) chain, by utilizing tokenization and notarization (EY, n.d.; EY#4, n.d.). Usually, these types of tools are used in sectors where supply provenance plays a crucial role, e.g. due to regulation or sustainability compliance, such as in the food or pharmaceutical industry, e.g. Carrefour, Bofrost, Nastro Azzurro, Perroni (Food & Beverage Industry), Canadian Blood Services & Merck Animal Health (Healthcare & Pharmaceuticals Industry) (EY#5, 2021).

- **Benefits:** increased transparency, reduction of manual data consolidation, automated contract execution, ameliorates monitoring and visibility of sustainability-related topics, one truth, provides siloed systems in one environment, improve data validity (EY#4, n.d.; EY#5, 2021).

- Other Users: ANSAcheck (a company fake-checking news sources) (EY#5, 2021).

Finally, EY OpsChain Public Finance Manager is a solution that aims at public sector organizations and governmental agencies (EY, n.d.). It has been developed to improve management of public finances and enables its users to integrate different types of reporting in the government, consolidate information across a network of internal and external parties and provide “near real-time” reporting and analytics capabilities. EY is cooperating with Microsoft to implement this solution in the Microsoft Azure cloud-environment on an enterprise-level (EY#6, n.d.). In addition to the EY OpsChain applications, EY offers the EY Blockchain Analyzer a platform hosting a series of tools that enable its users to analyze on-chain data and gain insights and mitigate risks such as compliance or legal issues or fraud. The core tools are:

- EY Blockchain Analyzer: Explorer & Visualizer allows its users to visualize blockchain data and the entire history of on-chain transactions. This improves data reliability and therefore analytics quality. Further, the management of legal and regulatory obligations as well as the efficiency investigations and analysis overall (EY#7, n.d.).
- EY Blockchain Analyzer: Tax Calculator is an application with which clients can generate a Form 8949 automatically or semi-automatically depending on the used cryptocurrency exchanges (EY#8, n.d.). This tool eases compliance and simplifies the tax filing process for its US user base.
- EY Blockchain Analyzer: Smart Contract & Token review is a tool that helps users test and analyze the functionality, security and business logic alignment of a smart contract or token created, in a safe testing environment (EY#9, n.d.). Moreover, the tool provides the possibility to simulate transactions and logics before applying them on the blockchain. This tool is expected to increase trust and transparency within the concerned ecosystem all while increasing overall adoption of blockchain technology in business (EY#9, n.d.).
- EY Blockchain Analyzer: Reconciler has been developed to assist EY’s clients reconcile data stored on-chain with off-chain data in bulk volumes. The tool is said to support the audit of firms holding and or managing digital assets such as cryptocurrencies, products, service or asset tokens (EY#10, n.d.), to identify potentially fraudulent activity (EY, n.d.). It is actively used by EY consultants in audit readiness services during the financial statement close process.

7.2 Centrifuge - Credit Lending & Financing

Centrifuge stands as a pioneering blockchain protocol that integrates real-world assets (RWAs) into the decentralized finance (DeFi) ecosystem, enhancing liquidity and profit potential for users (Vogelsang, 2022). Its asset-agnostic approach allows for a broad spectrum of RWAs to be tokenized and utilized within DeFi, distinguishing it from projects with a narrower focus. The protocol's main application, Tinline (Kraken, n.d.), serves as an open marketplace for asset-backed tokens, catering to various investor risk profiles and providing significant benefits to asset originators and investors (Vogelsang, 2022). Centrifuge's innovation lies in its ability to bridge the gap between traditional financial markets and the burgeoning DeFi sector (Vogelsang, 2022). By enabling the tokenization and collateralization of RWAs through Tinline, Centrifuge facilitates the issuance of stablecoins backed by these assets, thus offering a stable value proposition in the volatile crypto market. The platform's dual-token system, comprising Drop and Tin tokens, caters to different investor types (Vogelsang, 2022) by offering varied risk-reward structures akin to senior and junior tranches in traditional finance. The Centrifuge Chain, powered by the Centrifuge Coin (CFG), operates on a Proof-of-Stake (PoS) model, and is built on Parity Substrate (Vogelsang, 2022), allowing for seamless integration with the Polkadot ecosystem. CFG plays a multifaceted role in transaction fee payments, staking for block rewards, and governance participation, reflecting the network's value and user engagement. Centrifuge's approach to DeFi lending is particularly advantageous for small businesses seeking accessible credit and investors looking for stable yields (Vogelsang, 2022). By tokenizing verified real-world assets into NFTs, businesses can leverage these assets for collateralized loans, while investors can earn predictable returns. The compatibility with parachains on Polkadot and adherence to Ethereum standards positions Centrifuge as a bridge between these two leading blockchain ecosystems.

In summary, Centrifuge exemplifies how blockchain technology can streamline M&A transactions by reducing inefficiencies and costs while also easing access to funding and investment opportunities. Its innovative use of tokenization for RWAs offers a more inclusive, efficient, and interconnected financial world, aligning with the broader trend of integrating blockchain solutions into traditional business models for enhanced liquidity and accessibility.

7.3 Blocksquare – Real Estate Tokenization

The Blocksquare case study exemplifies the transformative potential of blockchain technology, particularly Ethereum's smart contracts, in addressing inefficiencies within the real estate sector. Blocksquare's platform enables the tokenization of property (Enterprise Ethereum Alliance,

2023, p. 61), allowing for the creation, purchase, and sale of asset-backed tokens with ease, thereby democratizing access to real estate investment (Blocksquare, n.d.). This innovation is particularly focused on small and medium-sized enterprises (SMEs) and benefits them by enhancing liquidity and simplifying asset management (Enterprise Ethereum Alliance, 2023, p. 61). The platform's core, the Property Factory smart contract, generates PropTokenContracts for individual properties, facilitating customizable revenue tokenization. These tokens are listed in a Property Registry, ensuring transparency and legal enforceability through on-chain valuation, and IPFS-stored corporate resolutions. The use of ERC-20 tokens allows for instant settlement of property rights, streamlined legal compliance, and reduced costs, contributing to a more liquid real estate investment market and lowering barriers for individual investors (Enterprise Ethereum Alliance, 2023, p. 62). Blocksquare's approach has led to the tokenization of over eighty properties and facilitated transactions worth over \$75 million as of 2023 and engage in further promising projects (Zibelnik, 2023). The choice of Ethereum Mainnet underscores the importance of security and decentralization, with the avoidance of Layer 2 solutions for real estate assets due to perceived risks (Enterprise Ethereum Alliance, 2023, p. 62). The platform's integration with property management software and partnerships ensures compliance and simplifies asset management.

The case study highlights Ethereum's capability to support complex business operations and meet enterprise-grade requirements for security, scalability, and compliance. Blocksquare's success story serves as a beacon for businesses considering blockchain adoption, showcasing the power of Ethereum smart contracts to streamline legal and compliance processes, thereby reducing administrative burdens, and opening investment opportunities to a broader audience. This aligns with the argument that blockchain can alleviate transaction inefficiencies and reduce costs in M&A transactions, offering both incremental improvements and disruptive solutions to conventional business models.

7.4 Brøk - Shareholder Management via Blockchain

Brøk is a platform being developed by the Norwegian government. Its main function is to share and update shareholder information of SME that are not publicly listed (Ledger Insights, 2023; Ramvi, 2023). The platform will be based on the public Ethereum blockchain in combination with the Arbitrum layer two scaling solution and follow the ERC1400 security token standard to digitize ownership records (Ramvi, 2023). Additionally, to comply with the European GDPR the platform uses the Ceramic network to allow for personal data to be deleted or altered as required (Ledger Insights, 2023). More specifically, the Brøk platform will enable the

Norwegian government to perform the following operations and communicate them to the public: manage shareholder information, GDPR-related deletion of shareholder's personal data, recording share ownership exchanges (e.g., stock sales/purchases), recording changes in total shares due to corporate action (e.g., consolidations, stock splits, capital adjustments)

The project aims to tackle several inefficiencies that arise from the current form of tracking and recording changes in the shareholder cap table. First, performing all transactions on-chain allows for real-time views of all companies' cap table, as opposed to currently where cap tables are often only updated through earnings report therefore often containing data that is outdated by up to a year (Ramvi, 2023). This logically also reduces the risk of fraudulent cap table manipulation, albeit not being a particularly frequent type of fraud. Secondly, the companies profit from an increase in share transfer cost/time efficiency as the platform enables them to buy/sell stock with less due diligence activities required on the shareholder due diligence (Ledger Insights, 2023). Lastly, the overall performance is expected to be less time consuming, as the automated, self-validating nature of the blockchain significantly reduces data recording a process efficiency overall.

A similar project has been started by Nasdaq in cooperation with blockchain infrastructure experts from Chain. The created platform focused on pre-IPO and private companies (Crosby, Nachiappan, Pattanayak, Verma, & Kalyanaraman, 2016). By using the platform created shareholders can exchange securities. Further, companies can manage, edit, and publish cap tables and provide affiliated third parties with historical records of stock issuances and other transactions (Nasdaq, 2015).

7.5 Acquire.Fi - An Early Adopter End-To-End M&A Marketplace

In late 2022 Acquire.fi was launched. The platform is a first-of-its-kind M&A marketplace utilizing blockchain technology and tokenization to render traditional M&A more efficient and democratize access to investment opportunities (Sopov, 2022). The platform is currently in closed beta stage, meaning only registered clients can access and use it. More generally, the platform aims at institutional investors as well as individuals. According to its website, the company claims to

[...] identify acquisition targets, conduct due diligence, and facilitate deals to connect sellers with buyers, creating strategic synergies while leveraging [their] network of investors and outreach to potential investors. (Acquire.fi, n.d.)

Additionally, the company offers fundraising, OTC secondary market services and specialized M&A services, such as trainings and workshops, M&A deal outreach and valuation services,

integration advisory and corporate development. Beside the core M&A-related functions of the platform Acquire.Fi also offers interest yield on (fractionalized) investments in companies and real-world assets (Acquire.fi#2, n.d.). While Acquire.fi states that it is conducting due diligence for its clients, it is important to precise that this only refers to “pre-listing mandatory due diligence” as explicitly stated throughout the website (Acquire.fi#2, n.d.). Full-deal due diligence, analysis and reporting can be provided additionally as a premium service (Acquire.fi, n.d.). While this is not truly end-to-end in an absolute sense, this platform clearly suggests a trend of partial M&A-process digitization.

The benefits expected from this innovative platform are to minimize the legal burden of M&A transactions all while streamlining the whole process. Communication, negotiation, and settlement can all be performed on the platform, reducing, or even eliminating the need for third party brokers and commercial banks (Sopov, 2022), all while benefiting from high level security due to the immutable nature of blockchains. Lastly, utilizing blockchain tokenization allows for fractionalization of ownership making the traditionally non-disclosing M&A realm more accessible for individuals in a secure and transparent manner.

7.6 Concluding Assessment: How Blockchain Tokenization Might Help

The integration of blockchain technology into business operations, particularly in the context of Mergers and Acquisitions (M&A), is demonstrating significant potential to optimize traditional processes and reduce inefficiencies. This chapter delves into active business cases where blockchain-based tokenization is applied, highlighting the versatility and efficiency gains across various operations.

EY Blockchain’s SaaS Platform is revolutionizing the accounting and auditing landscape by offering solutions like EY OpsChain and EY Blockchain Analyzer. These tools, built on Ethereum and utilizing Nightfall for private transactions, streamline procurement activities and enhance data accuracy. The platform's ability to consolidate information and provide a single source of truth mirrors the consolidation and due diligence efforts in M&A, suggesting a more efficient approach to transaction verification and execution. Centrifuge exemplifies the bridging of real-world assets to DeFi, offering a stable value proposition in the volatile crypto market. Its dual-token system, Drop and Tin tokens, reflects the financial structuring in M&A, providing varied risk-reward profiles for investors. The platform's tokenization of assets for collateralized loans aligns with the asset management and liquidity provision in M&A, indicating a potential for more streamlined and cost-effective transactions. Blocksquare showcases the use of Ethereum's smart contracts in the real estate sector, facilitating the tokenization of property

and democratizing real estate investment. The platform's ability to ensure instant settlement and legal compliance can be paralleled with the transactional aspects of M&A, where speed and adherence to legal frameworks are paramount. The tokenization of over eighty properties and the facilitation of significant asset transactions underscores the scalability and security blockchain brings to complex business operations. Brøk, developed by the Norwegian government, focuses on shareholder management for SMEs. Utilizing Ethereum and Arbitrum, Brøk digitizes ownership records, enhancing transparency and efficiency in share transfers. This platform's capabilities resonate with the share management and restructuring often required in M&A, suggesting a more efficient method for tracking, and recording ownership changes. Acquire.fi represents an innovative M&A marketplace that leverages blockchain technology to streamline the M&A process and democratize investment opportunities. The platform's end-to-end services, from identifying acquisition targets to facilitating deals, indicate a shift towards digitization in M&A. The use of blockchain tokenization for fractionalized investments points to a future where M&A transactions are more accessible to a broader range of investors, enhancing transparency and security.

In summary, these cases collectively illustrate that blockchain technology can significantly enhance the efficiency of business operations commonly found in M&A. The adoption of blockchain is gaining momentum across various business sectors, with platforms like EY Blockchain, Centrifuge, Blocksquare, Brøk, and Acquire.fi leading the way. Each case reflects a set of tasks also present in M&A, such as due diligence, asset management, and shareholder services, and demonstrates how blockchain can alleviate transaction inefficiencies and reduce overall costs. The trend towards partial digitization of the M&A process is clear, with blockchain technology at the forefront of this transformation, promising a more inclusive, efficient, and interconnected financial world.

8. Concluding Assessment: Blockchain & Hypotheses

In the previous chapters we have shown that there is a growing trend of blockchain technology being integrated into various business operations, indicating its potential to streamline processes and enhance efficiency. EY's platform demonstrates blockchain's capability to improve procurement activities, data consolidation, and contract execution, which are analogous to M&A activities. Centrifuge's approach to tokenizing real-world assets for DeFi applications shows how blockchain can provide stable value propositions and cater to different investor risk profiles, relevant to M&A financial structuring. The tokenization of real estate assets on Blocksquare's platform highlights the potential for blockchain to democratize investments and

expedite settlement and compliance processes in M&A. Brøk's platform for managing shareholder information using blockchain technology underscores the potential for more transparent and efficient share transfer processes in M&A. Finally, Acquire.fi's blockchain-based M&A marketplace suggests a move towards digitization in M&A, with the potential to make the process more accessible and reduce reliance on intermediaries.

Derived from these findings the author moves forward a set of hypotheses that are to be verified in the subsequent expert interviews:

1. Blockchain technology can reduce the time and cost associated with due diligence in M&A transactions, thereby improving its efficiency.
2. Areas most suitable for blockchain applications seemingly are:
 - a. enhancing accuracy and reliability of data during M&A activities.
 - b. streamlining the legal and regulatory compliance processes in M&A, leading to a reduction in administrative burdens.
 - c. providing a higher degree of transparency and trust among stakeholders.

These hypotheses will be explored and tested through subsequent expert interviews to validate the potential impact of blockchain technology on M&A transactions and to identify any barriers to its adoption.

9. Key Findings Theoretical Part

Before we transition from the exploration of theoretical frameworks to empirical explorations through expert interviews, we embark on a synthesis of the insights gathered thus far. In the realm of mergers and acquisitions (M&A), blockchain technology and tokenization could emerge as transformative forces, presenting a compelling case for enhancing the efficiency, transparency, and overall performance of due diligence processes. This chapter highlights key insights from previous discussions, emphasizing how blockchain could improve M&A transactions' efficiency and overall performance, preparing us for the subsequent empirical exploration through expert interviews.

In *chapter 2* we establish that, the M&A process, as detailed by Lajoux, is a complex journey through various stages, each presenting its own unique set of objectives and challenges. Within this process a central stage is the due diligence phase. The author has shown that due diligence can massively influence the outcome of an M&A deal and even post-deal performance, if conducted in an incomplete or flawed manner. Further, due diligence often seems to be a stage that acts as a bottleneck within the M&A process, potentially prolonging transaction times and

inflating costs. Blockchain technology emerges as a beacon of promise, offering to refine and expedite this phase. Its capacity to function as a single source of truth and to facilitate secure, transparent transactions resonates profoundly with the intrinsic requirements of due diligence. This suggests that blockchain could significantly enhance the efficiency of transaction verification and execution. The multifaceted nature of the M&A process, which spans from strategy and valuation to financing, structuring, negotiation, closing, and integration, means that the impact of blockchain could be transformative, particularly in due diligence where the need for efficiency is most acute. This chapter's comprehensive overview of the M&A process has highlighted due diligence as a phase ripe for innovation. With blockchain's promise of streamlining due diligence, the M&A landscape could be on the cusp of a significant evolution, one that embraces transactional efficiency and cost-effectiveness.

Chapter 3 laid the foundation for understanding blockchain's functionality and key characteristics, such as decentralization and immutability, which are crucial for enhancing transparency and efficiency in business operations, including M&A. Blockchain's decentralized nature, immutability, and transparency can mitigate common M&A challenges such as information asymmetry and lack of transparency. Moreover, the notion of a closed P2P network and the resulting "Oracle Problem" have been emphasized to prepare the audience for later exploration. The chapter also delved into the technical design and different types of blockchains, discussing the various layers that make up a blockchain's architecture and the role of consensus mechanisms in maintaining the integrity and security of the network.

Chapter 4 explored the state of adoption of practical Ethereum blockchain applications in business, to assess the adoption of the EVM blockchain ecosystem in an enterprise context. The discussion included the analyzing the blockchain trilemma, which poses challenges in designing blockchain networks that are scalable, decentralized, and secure. Despite the challenges in terms of scalability, decentralization and security/compliance concerns, the chapter highlights significant progress in blockchain's adoption in business contexts and regulatory acceptance, indicating a maturing technology suitable for enterprise adoption.

Chapter 5 introduced the concept of blockchain tokenization, presenting it as a transformative process capable of digitizing real-world assets. Tokenization, the process of representing an asset's value through digital tokens, provides fruitful ground to improve asset management in M&A. Platforms like Centrifuge and Blocksquare demonstrate how tokenization can increase liquidity and access to investment opportunities and/or financing, making M&A markets and other traditionally more difficult investment classes more accessible to a broader range of investors. The ability to tokenize and trade assets 24/7, coupled with instant settlement

capabilities, underscores the technology's potential to improve transaction costs and the overall performance of complex business operations. Further, the chapter discussed the regulatory landscape for tokenization, particularly the types of tokens under the EU's Markets in Crypto-Assets Regulation (MiCA), and real-world asset (RWA) tokenization carrying the potential to democratize access to investment opportunities and improve market efficiency. The regulatory landscape, particularly in the EU with the introduction of MiCA, is evolving to provide clarity and certainty for crypto-assets and services. While regulatory concerns and privacy issues remain, advancements in decentralized digital identities and privacy-enhancing technologies like Zero-Knowledge Proofs are addressing these challenges, paving the way for broader adoption of blockchain tokenization in business.

In *chapter 6*, we analyzed current business cases where blockchain-based tokenization is applied in business operations, underscoring the technology's versatility and efficiency gains. These real-life use cases demonstrate well the suitability of this technology in the broader sense of M&A transactions and their underlying business processes.

Finally, *chapter 7* consolidates the research findings, highlighting blockchain tokenization's potential to improve M&A due diligence and setting the stage for empirical validation. The key findings from these chapters collectively illustrate that blockchain technology can significantly enhance the efficiency of business operations commonly found in M&A. The adoption of blockchain is gaining momentum across various business sectors. Each case (i.e., chapter 6) reflects a set of tasks also present in M&A, such as due diligence, asset management, and shareholder services, and demonstrates how blockchain can alleviate transaction inefficiencies and reduce costs.

10. Hypotheses Brought Forward

This concludes the synopsis of theory and leads us to the derived hypotheses/assumptions to be assessed empirically. They can be categorized in two overarching topics:

1. The M&A/business side
2. The technology side

While the M&A side refers to topics directly affecting the initial problem (i.e., inefficiencies in M&A due diligence), the technology topics evaluate if and how blockchain tokenization could mitigate the identified issues. With regards to the M&A side we earlier proposed that:

- H1. The length of the pre-closure phase implies more transaction costs with an overall negative effect on M&A transaction costs.
- H2. The due diligence is by nature of its length one of the more costly phases of the whole transaction. Therefore, there is potential for cost reduction in this phase if it is shortened this phase considerably.
- H3. Information asymmetry and lacking transparency negatively affect the quality of the financial due diligence. This suggests that information access, originality, validity, and actuality are crucial in all underlying (sub) due diligence processes.
- H4. Financial due diligence still offers room for improvement in terms of efficiency and quality, as disaster cases keep coming up. Areas for improvement seem to be the actuality, reliability and quality of data and the reduction of the human error factor. Prevalent systems could represent a “weak link” for financial due diligence as they are not immutable and do not live up modern day requirements of self-validation, automation, security, and real-time actuality. New technologies and digital systems, such as blockchain systems and applications, may be well suited to mitigate risks and/or alleviate potential inefficiencies.

In terms of blockchain technology the author brings forward the hypotheses that:

- H5. Blockchain technology can reduce the time and cost associated with due diligence in M&A transactions, thereby improving its efficiency.
- H6. Areas most suitable for blockchain applications seemingly are:
- a. enhancing accuracy and reliability of data during M&A activities.
 - b. streamlining the legal and regulatory compliance processes in M&A, leading to a reduction in administrative burdens.
 - c. providing a higher degree of transparency and trust among stakeholders.

11. Introduction to The Empirical Part

As we move forward into the empirical phase of our research, expert interviews stand as a critical component that will provide valuable insights into the practical application and potential impact of blockchain technology in M&A transactions. These discussions are designed to verify and expand upon our current understanding, offering a detailed perspective on how blockchain may optimize due diligence processes within M&A. The foundational work laid out in the preceding chapters has underscored the transformative potential of blockchain and tokenization, setting the stage for a thorough validation of the hypotheses through empirical evidence. This approach aims to contribute to a comprehensive and nuanced view of blockchain's role in

enhancing the efficiency and effectiveness of M&A activities. As we proceed into the empirical exploration of our research, we are met with the challenge of navigating the relatively uncharted waters of blockchain application in M&A due diligence. The secretive nature of the M&A industry, coupled with the nascent state of blockchain technology in this domain, means that real-life cases directly addressing M&A use cases are scarce. While pioneering efforts like Acquire.fi have begun to surface, offering glimpses into the practical application of blockchain, they remain on a smaller scale and are not yet widespread. This scarcity of real-world applications presents a significant obstacle to empirical research in this field. The lack of extensive case studies and the industry's cautious stance on sharing information make it difficult to gather the empirical evidence needed to substantiate the theoretical potential of blockchain in enhancing M&A transactions. This limitation is not only a partial reflection of the current state of technology adoption but also highlights the challenges inherent in conducting scientific research in areas where industry practices are closely guarded, and innovation is still in its infancy.

Despite and because of these challenges, the research aims to probe the depths of blockchain's potential in M&A due diligence through expert interviews, which will shed light on the practicalities and nuances of blockchain implementation. However, it is crucial to acknowledge the limitations and white gaps that exist in the current body of knowledge. More detail on these limitations and the areas that remain unexplored will be provided at a later stage, offering an assessment of the research journey and the frontiers that are yet to be explored.

12. Research Report

We now advance to the empirical analysis, the core of this thesis. The 'Research Report' chapter will detail our methodological approach and the analytical journey through which we distill our data into structured insights. We will outline our methodology, then describe how we developed key categories and conducted iterative coding to refine our analysis. The process of forming sub-categories inductively and the insights from subsequent coding iterations will be presented, demonstrating how we have extracted meaningful patterns from our data. This chapter is a concise walkthrough of our analytical methods, leading to the empirical findings that form the basis for our final discussions and conclusions.

12.1 Methodology

For the empirical exploration of this work, a series of semi-structured expert interviews were designed to test the hypotheses posited in the preceding chapters. The primary objectives of these interviews were to explore the technological benefits of blockchain, as well as to dissect the intricacies of the financial due diligence process within M&A transactions.

The participants were carefully selected and categorized into two distinct groups to ensure a comprehensive exploration of the subject matter. The first group comprised blockchain experts, who were engaged in discussions centered on the operational mechanics of blockchain technology and its differences or potential advantages over existing systems. The focus for these interviews was to elucidate the "how" and "why" behind blockchain's potential effectiveness and efficiency improvements, in the context of M&A due diligence. The conversations with these professionals revolved around identifying Challenges, bottlenecks, and critical tasks within the due diligence process. The aim was to gain a deeper understanding of the procedure and challenges arising during financial due diligence, as this industry is discrete by nature. Further, to identify tasks that are susceptible to human error or (deliberate or accidental) fraud, as well as to pinpoint inefficiencies and challenges that could potentially be mitigated through the adoption of blockchain technology. A detailed list of all interview candidates and respective interview transcripts can be found in Table 1 hereunder.

INT.	Interviewer	Interview Transcript
S1	Senior Manager in the "Deals Office" in a major German subsidiary of a "Big 4" company.	Full transcript in Appendix B.
S2	Manager of Transactions Services in a major French subsidiary of a "Big 4" company.	Full transcript in Appendix C.
S3	Due Diligence Manager at German mid-size M&A consultancy.	Full transcript in Appendix D.
S4	Senior Manager in the "Strategy & Transactions" Department in a major Italian subsidiary of a "Big 4" company.	Full transcript in Appendix E.
S5	Managing Director of the Austrian subsidiary of a multinational, mid-sized consultancy group.	Full transcript in Appendix F.
S6	Vice President of Investment Banking at a DAX-listed German Bank.	Full transcript in Appendix G.

Table 1: Expert Interview Participants overview.

Following the initial design phase, the expert interviews were conducted, recorded, and later transcribed. The transcription and subsequent analysis were supported by the qualitative analysis software “MaxQDA”. This transcript was then manually revised while listening to the audio recordings.

A structuring qualitative content analysis after Kuckartz and Rädiker was performed (Kuckartz & Rädiker, 2023, pp. 80, 99-120), to analyze the data. Following their recommendations, a hierarchical category system and manual was created before moving to MaxQDA for further analyses (Kuckartz & Rädiker, 2023, p. 40). The category manual can be found in the Appendix H. The tool was selected for its data organization capabilities, which facilitated the management of the qualitative data and the highlighting codes across the transcripts. Its visual tools were particularly valuable for the identification and illustration of relationships between codes, ensuring clarity and coherence of the analysis. Within the tool, distinct codes were iteratively created inductively and deductively, through the two methods of “open coding” and “axial coding”, following recommendations by Strauss & Corbin (1998). Each code followed a specific rule to guide its application.

In conclusion, the process of identifying and organizing the distinct layers, dimensions, and characteristics was an engaging and iterative journey. The validation and revision aspect of the interviews offered valuable opportunities to refine and enhance certain findings. The use of MaxQDA was supportive in structuring the qualitative data from the interviews. While using this tool presented complexities, it significantly contributed to the effective revision and analysis of data and insights. As we transition to the Analysis Process chapter, we will delve into the systematic examination of the data. This chapter will detail the analytical methods and procedures used to interpret the data, identify patterns, and draw meaningful conclusions. We will explore the step-by-step process that extracts insightful findings from raw data, thereby bridging the gap between theoretical understanding and empirical evidence.

12.2 Developing Main Categories

As stated earlier key categories relevant for extracting expert feedback to refine the findings of prior findings, validate the hypotheses and answer the overarching research question were defined. The main five categories for the classification of feedback/information provided by the interview candidates were: “FDD Framework”, “FDD Challenges”, “Blockchain Potential”, “New Insights” and “Testing Hypotheses”. Further detail on main categories can be found in the Category Manual in Appendix H.

12.3 First Coding Iteration: Coding Data with Main Categories

After having established a category system, the first iteration of coding entailed assigning relevant feedback/information to the main categories, according to the application rules found in Appendix I. This was done to subdivide information sets based on their contents, as to facilitate further sub-coding in the later coding iterations. In total 279 codes were coded, the number in parentheses indicates how many of the coded segments were assigned to each respective code/category: “FDD Framework” (72), “FDD Challenges” (34), “Blockchain Potential” (56), “New Insights” (44) and “Testing Hypotheses” (73). While the first iteration of coding helped classify the different types of feedback and information initially, it also clearly revealed the need for more granular differentiation, to facilitate later analyses. Based on the data collected after the first coding round, a category analysis based on the coded segment allocated to each respective parent category was performed. A summary of the key sub-topics identified for each parent category is presented hereunder; the value in parentheses behind each parent category refers to the number of coded segments allocated to that respective category.

“FDD Framework” (72). The analysis of the feedback coded with “FDD Framework” helped clarify the scope and contents of financial due diligence. The contents of the feedback covered topics such as: Goals and different types of (financial) due diligence, more detailed information about the FDD process in its entirety, main tasks of financial due diligence, the average or usual timeframe allocated to due diligence and the output(s) and their format(s).

“FDD Challenges” (32). The analysis of the feedback coded with “FDD Challenges” helped understand the challenging aspects of financial due diligence. These could be time-consuming, inefficient, redundant tasks etc. The contents of the feedback unveiled four thematic sub-categories with regards to the areas in which challenges are oftentimes encountered in an M&A context from the speakers’ experiences. The most striking observation was that challenges that concern data are numerous. Other notable mentions were challenges about fraud/error risks, international transactions, and the differences between transactions with audited vs. transactions without audited financial data.

“Blockchain Potential” (56). The analysis of the “Potential Blockchain use case/advantages category” brought forward a set of interesting tendencies. Firstly, there seemed to be several areas of applications in which the interviewees see potential benefit of blockchain technology utilization. The main area of application clearly seemed to be with regards to improving quality of the underlying data. Thereafter came applications specifically in the fields of auditing and

accounting, followed by the topic “automation”. Other advantages and/or possible use cases were uncovered with regards to “Data Collection” and “Transparency”.

“New Insights” (44). With regards to the category “New Insights” key sub-topics identified as relevant for further evaluation were information involving SMEs specifically, information that concern VDRs, real-life cases as reported by interviewees and comments on the outlook on blockchain adoption. Furthermore, the notion that anything that makes data more dependable, and its transfer faster ultimately will benefit the M&A professionals conducting due diligence. Although this seems intuitive it is an important notion that was envisioned to be examined further after the second round of coding.

“Testing Hypotheses” (73). The data collected from segments coded with this category aimed directly at evaluating the hypotheses formulated at earlier stages. A more detailed analysis for each hypothesis will be performed in the analysis of the second coding round, as it is not sensible to summarize the findings before a more granular analysis of each sub-topic/hypothesis. For that, the researcher envisioned forming a sub-category for each hypothesis in the second coding round.

12.4 Forming Sub-Categories

The analysis of the first coding round made evident that the parent categories required a more granular classification to be analyzed effectively. Therefore, the sub-topics identified to for each respective parent category in the previous chapter were used to inductively form sub-categories that allow for more granular classification and subsequent analysis. The twenty-five sub-categories were:

Child-categories of “FDD Framework” (6): “Goals”, “Types”, “Process”, “Main Tasks”, “Timeframe” and “Output”.

Child-categories of “FDD Challenges” (4): “Data”, “Manipulation/Error Risk”, “International Transactions”, “Audited vs. Non-audited Financial Data”.

Child-categories of “Blockchain Potential” (4): “Data Quality”, “Audit/Accounting: Fraud Detection/Error Prevention”, “Automation”, “Transparency”.

Child-categories of “New Insights” (5): “SMEs”, “VDRs”, “Cases”, “Anything faster/more reliable”, “Outlook on Blockchain Adoption”.

Child-categories of “Testing Hypothesis” (6): “A1”, “A2”, “A3”, “A4”, “A5”, “A6”.

More detail on the subcategory coding system can be found in the sub-category manual Appendix J.

12.5 Second Coding Iteration

The second coding round envisaged refining the classification of the 304 coded segments to allow for more granular analysis. Hence, the codes were allocated to child categories according to the codebook for sub-codes, where the twenty-five defined, child-categories/sub-codes established in Chapter 12.4 are displayed within their respective parent-category (see Appendix K). The total number of segments coded with subcode remained 279. At this stage, the data collected was appropriately classified to engage in a detailed analysis. Therefore, a detailed sub-category analysis was conducted to summarize the main findings of the conducted research before moving to the discussion of findings. In the following the most critical insights uncovered through the analysis of the second coding round will be outlined subsequently.

“FDD Framework”. Concerning the sub-category *“Goals”* Speaker 1 especially stressed the need for financial information to reflect a true and fair view for valuation, focusing on the overall financial status rather than just data entry accuracy, tasks which are more typical for accountants/auditors (S1, 2024, p. 16). Speaker 4 highlighted the overall aim to ease their clients' efforts in dealing with potential buyers through their service package (S4, 2024, p. 9). Speaker 6 underscores the need to meticulously review documents to identify any detrimental issues to the company's future value and to find areas of potential synergy (S6, 2024, p. 4).

In summary, the main goal of financial due diligence consists in reviewing historical financial data, while analyzing whether this data allows for a fair representation of the company in terms of financials. If they do, the professionals go forward building financial models and projections as to properly value the targeted entity, this entails identifying not only potential risks but also potential synergies. The result of the FDD is then presented to the client to ease his further negotiations with the counter party. More detail on the holistic FDD process can be found in the summary of the sub-category *“Process”*.

Regarding *“Types,”* Speaker 2 especially distinguishes three types of financial due diligence—vendor diligence, vendor assistance, and financial due diligence—highlighting that practices vary by market, with Germany preferring vendor assistance and France and Italy focusing on vendor diligence (S2, 2024, pp. 8,12). Speaker 3 notes that the time allocated for due diligence depends on whether it is for the buy side or sell side, with the sell side usually having more time (S3, 2024, p. 16). Speaker 4 (S4, 2024, p. 9) mentions that their due diligence is primarily for

the buy side to provide a comprehensive financial understanding of the target company. The essential insight for this sub-category is that a more granular distinction between different due diligence types is required, as the scope and timeframe allocated greatly differs between each type. The notion emerged that buy-side due diligences tend to be the most complex. This because the information asymmetry is the largest in those cases and therefore more time is usually required and allocated to this type of due diligence, impacting overall cost of due diligence. The "*Process*" is detailed by Speaker 1, who describes the FDD process during an auction, including the submission of an information request list and the critical phase when bidders are invited to the M&A process (S1, 2024, pp. 3,5). Speaker 2 adds that the process involves management providing data on profit and loss, balance sheet, and cash flow, along with any potential adjustments (S2, 2024, p. 12). Speaker 3 outlines the initial stages of the M&A process, from deal sourcing to the creation of a report with recommendations for the purchasing party (S3, 2024, p. 6). Speaker 4 discusses services offered in sell-side and buy-side due diligence, including the preparation of various financial statements and analyses (S4, 2024, pp. 9,11,14,26). Speaker 5 provides an overview of the second phase of due diligence, including management presentations and the use of VDRs (S5, 2024, pp. 4,6). For "*Main Tasks*" Speaker 1 discusses primarily tasks such as reconciling financials, normalizing EBITDA, and considering off-balance sheet items (S1, 2024, pp. 3,5,6,16). Speaker 2 highlights the examination of non-cash items within EBITDA and the preparation of an information request list (S2, 2024, pp. 12,38). Speaker 3 (S3, 2024, pp. 6,22,24) emphasizes conducting multiple financial analyses and understanding the flow of data and information. Speaker 6 notes the importance of reviewing historical financials and the various accounting choices that can affect valuation (S6, 2024, pp. 14,18). The "*Timeframe*" for due diligence is discussed by Speaker 1, who indicates that the active work phase typically spans 3 to 5 weeks but may vary (S1, 2024, pp. 8,14). Speaker 3 (S3, 2024, p. 16) and Speaker 4 (S4, 2024, p. 9) provide their insights on the duration of their work, which can be influenced by the complexity of the target company and the professionalism of the buyer and their partners. Lastly, the "*Output(s)*" of the due diligence process are described by Speaker 4 (S4, 2024, p. 14), who mentions the deliverables provided to the client, including a Power-Point presentation, an editable PDF, and possibly a data book in Excel format.

Challenges. The analysis of the sub-categories labelled "Data", "Fraud and/or Error Risk", "International Transactions" and "Audited vs. Non-audited data" helped further classify the identified Challenges based on the deductively formed thematic categories. The analysis of the coded segments revealed that the biggest Challenges in FDD are categorized in the sub-category "Data", followed by "Manipulation/Error Risk" and "Audited vs. Non-audited Financial Data". The last notable mention was "International Transactions".

The “Data” subcategory proved to be of major interest for the overarching research topic. Its analysis revealed that all interview candidates experienced Challenges with regards to “Data”. The most often cited problem referred to the gathering or collection of data in more general terms (S2, 2024, p. 14), (S3, 2024, pp. 12,52), (S4, 2024, p. 16), (S6, 2024, pp. 6, 15-16, 18), which was described as time-consuming, especially when involving SMEs (S2, 2024, p. 14), (S4, 2024, p. 16). Additionally, speakers three and five added the notion that the quality of the data provided upon request is not always as desired (e.g., outdated, constructed data). They partially attribute the lacking quality of data within M&A to “human error” (S5, 2024, p. 22), data adjustments and deficiencies in the data collection process, while indicating that automated process may alleviate some of the issues encountered (S3, 2024, pp. 30,34). The other critical Challenge with regards to data is the cleaning, reconciling, and reviewing of data/documents. This notion is concurred by Speakers 1 (Pos. 60), 2 (Pos. 8,14), 3 (Pos. 12), 5 (Pos. 22) and 6 (Pos. 4).

In summary it can be said that major Challenges uncovered with regards to “Data” could be further classified in two categories: they either concern the initial data collection process or the subsequent processing of said data. This is an important finding as it reveals an area for improvement to be examined with more detail in the “Potential Blockchain Use Cases/advantages” section later within this chapter. For now, the notion that data collection and subsequent processing is a major Challenge area within FDD as it is referred to as tedious and time-consuming. This is mostly attributed to the volume or quality of underlying data or process deficiencies. Other than data, almost all speakers referred to the *susceptibility of a data/document manipulation risks* as another Challenge (S1, 2024, p. 32; S2, 2024, pp. 33-34; S3, 2024, p. 10). Albeit possibly not being exploited with malicious intent as stated by (S2, 2024, p. 32) this finding reveals another potential area for improvement to be explored at a later stage. Other notable mentions were regarding the differences in dealing with M&A transactions where audited financial figures are provided vs when they are not (S2, 2024, p. 8; S4, 2024, p. 20). The speakers stated that transactions involving targeted companies are generally much less complex because the underlying financial data is considered reliable as compared to non-audited or reconciled financial data. In the case of non-audited financial data, the work of FDD professional can prove to be much more “difficult” and “painful”. Lastly, speakers 3 and 4 touched challenged regarding international M&A transactions. They argue that international M&As tend to be more complex due to the need for additional accounting and tax reconciliation. As a potential remedy, S3 suggested automated transfer calculation.

New Insights. The analysis of the sub-categories labelled “SMEs”, “VDRs”, “Cases”, “Anything faster/more reliable” and “Outlook on Blockchain Adoption” helped categorize new information based on the deductively formed thematic categories.

SMEs. The analysis of the sub-category “SMEs” revealed that M&A transactions involving SMEs are substantially more challenging than other. This notion was already mentioned in the earlier segment on Data. The section hereunder enriches the findings and provides some further context on the implications of SMEs. Speaker 1 states that startup companies often exhibit a high enterprise value that is not reflected in their financial books, primarily because they focus on growth and may lack financial expertise, relying instead on external advisors alleviating the issues only to a limited extent (S1, 2024, p. 18). Speaker 4 echoes similar sentiments, particularly in the Italian context where many companies are small to medium-sized with understaffed financial departments. This leads to extensive and labor-intensive requests for information, which can strain the due diligence process in terms of budget, effort, and team management (S4, 2024, pp. 16,20). The efficiency of the financial department at the target company can significantly impact the due diligence work, as limitations may arise if the company fails to provide necessary information, leading to inefficiencies in the report (S4, 2024, p. 16). For smaller companies, the due diligence process lacks the structure found in larger deals, often without a financial adviser or sell-side adviser present. This means the due diligence team must take on more work, such as deciding which accounts to use and whether the company has been audited (S2, 2024, p. 8). The presence of an audit, particularly one with a reputable institution, provides confidence in the financial figures. Without an audit, the team relies on general ledger trial balances and attempts to reconcile them with more specific company figures, which is considered a risky aspect of due diligence (S2, 2024, p. 8). The process of collecting all necessary data can take several weeks, especially if it involves converting paper records into digital format for analysis in Excel (S2, 2024, p. 14). The smaller the company, the greater the challenges tend to be in terms of data quality, which is a common observation but not a rule. For listed companies, there are often strict controls to prevent data leaks, resulting in more accurate information compared to SMEs (S4, 2024, pp. 40,48).

VDRs. The analysis of the sub-category “VDRs” revealed more detailed contextual information on VDRs. In the realm of mergers and acquisitions, the use and management of Virtual Data Rooms (VDRs) have become a key element of M&As that was not previously covered extensively in this work. The analysis of this sub-category revealed more detailed insights about the function and importance of VDRs. Insightful highlights of this analysis are summarized hereafter. Generally, all speakers describe VDRs the central place for data exchange, transfer, and

documentation, making it a single-point vulnerability in terms of security. Further, Speaker 3 notes that VDRs have evolved from their inception but remain relatively simple with regards to underlying technology, akin to platforms like Google Drive or SharePoint. However, they express a major concern that once documents are downloaded from the VDR, tracking who has access or who has deleted those documents becomes challenging (S3, 2024, pp. 10,32). Speaker 4 concurs that the standard practice involves receiving access to a VDR, oftentimes professional ones such as iDeals, which are more dependable in terms of documentation than basic platforms like Google Drive. These professional VDRs provide detailed information about data uploads and changes, facilitating the exchange of files between the target company and the due diligence team (S4, 2024, p. 24). Speaker 6 emphasizes the critical role of VDRs in storing all relevant documents, not just contracts with key customers but also foundational documents, detailed financial data, and materials related to all functional areas of the company. This comprehensive collection of documents allows due diligence advisors to conduct a granular analysis and build financial statements based on the company's trial balances. Moreover, he stresses that VDRs be accessed a significant number of people, sometimes over a hundred, reviewing these documents in detail. The organization of document uploads to the VDR can vary. In the best-case scenario, an internal project manager within the company is responsible for gathering and uploading the necessary data. However, often an advisor from the bank must undertake this task, which can be difficult without in-depth knowledge of the company's critical documents. The selection and upload of documents involve a significant amount of discretion and are usually followed by a senior member's review for approval. The process is described as arduous, involving the gathering, and reviewing of documents. This is in line with the earlier findings on Challenges about data.

Cases. The sub-category “Cases” was created to classify real life examples of professionals’ experience within a due diligence context. Speaker 1 recounts a past transaction involving many documents, approximately a thousand or two thousand pages, which needed to be printed for a contract. There was uncertainty about whether they had the latest version of each document. To address this, they created hash codes for the documents using a software solution (not blockchain) to verify that the documents were the correct versions before printing. This method provided both parties with confidence that the documents were accurate. Speaker 1 also notes that blockchain technology could offer a similar level of security, ensuring the correctness of documents with near certainty (S1, 2024, p. 44). Speaker 3 has observed from colleagues and other sources that documents can be tampered with during financial due diligence, which involves a large volume of documents, making it easy to overlook alterations. They note that once documents from a Virtual Data Room (VDR) are downloaded, it becomes difficult to track who has

accessed or deleted them, suggesting the need for a system that can trace such activities to prevent sensitive data from being distributed to unauthorized third parties. Speaker 3 also mentions that some parties may not necessarily hide information but may relegate conflicting information to the background to support their sales narrative. They recount a colleague's experience at a Big Four company where tampered data was discovered after a deal had closed. The data in question pertained to the reported success of a newly introduced product, which was later found to have discrepancies linked to the commercial stream. Speaker 3 believes that even with diligence, such issues might not be detectable without an automated process for data collection (S3, 2024, pp. 10,32,56,58,61). Speaker 4 mentions being aware of a due diligence conducted by one of the Big Four firms for a significant healthcare company with Italian and French ties. The financial due diligence report presented a more favorable situation than what the buyer encountered upon entering the company, indicating that there was a discrepancy between the due diligence findings and the actual state of the company's finances. This discrepancy turned out to be a significant issue (S4, 2024, pp. 57-58). Speaker 5 recounts an incident where a bank involved in a transaction made a significant error amounting to approximately two hundred million (€), which initially went unnoticed. The mistake was discovered incidentally when Speaker 5 had a question about a different matter, prompting a closer examination that revealed the discrepancy. They suggest that without this fortuitous inquiry, the error might have remained undetected and could have been mistakenly accepted as the final financial result (S5, 2024, p. 22). Finally, Speaker 6 discusses the challenge of validating underlying data during due diligence, noting that instances of fraud are often related to manipulation of historical financials. They reference the Wirecard scandal as an example of such fraudulent activity, where "fancy stuff" was done with the financial records (S6, 2024, p. 18).

Anything faster/more reliable. Another sub-category analysis that proved crucial for this research was "Anything faster/more reliable". This category was deductively formed from a notion firstly mentioned by S2 stating that everything benefiting the timing and reliability of the data is going to be of value and positively affect the work of their companies (S2, 2024, pp. 50,60,86). They emphasize the importance of having reliable data in the due diligence process, as it saves time by reducing the need for additional checks and reconciliations. They also highlight the value of any tool or technology, such as blockchain, that can provide information more quickly and reliably. They conclude that improvements in the timing and reliability of data would be advantageous and add value to their company's operations. Speaker 3 agrees that any tool or method that speeds up data transfer and enhances its reliability would improve the due diligence process (S3, 2024, pp. 33-34). Also, S4 believes that having access to more frequent and timely financial data would be extremely beneficial for due diligence processes. They

typically request intra-annual data, such as monthly or quarterly figures, to better understand the evolution of sales and the seasonality of working capital, which can significantly impact pricing. However, they note that many companies do not prepare such frequent updates, with statutory financial statements often being finalized six months after the year's end, leading to a delay in the availability of current data. In regions like the UK and the US, daily financial information is sometimes used because working capital can fluctuate daily, and precise adjustments are crucial for price negotiations. The best scenario for due diligence would be to have daily information, followed by monthly, then quarterly, with the least preferable situation being no intra-annual data at all. In such cases, they rely on bank statements to assess working capital, which is not ideal. Speaker 4 also mentions that blockchain technology could be helpful if it enables access to daily or monthly financial information that is accurate and consistent over time. The ability to have more reliable and up-to-date data would significantly aid their work in due diligence (S4, 2024, pp. 28,34). Speaker 5 expresses agreement with the idea that increased reliability in data, where it is non-adjustable and unchangeable, is beneficial. They find it noteworthy that accounting standards are evolving to allow for the keeping of only digital records, such as checks, provided that these records are tamper-proof. However, Speaker 5 points out that ensuring data is unalterable is not straightforward, as it requires specialized systems beyond common solutions (e.g., SharePoint) (S5, 2024, pp. 69-74). Finally, Speaker 6 agrees with the sentiment expressed by M&A experts that the more precise, valid, and verified the underlying data is, the better the output of the Financial Due Diligence (FDD) will be. They acknowledge that the quality of an FDD report is directly tied to the quality of the underlying data. Currently, they see a critical issue in the inability to ensure the accuracy of all data used in financial models. Speaker 6 believes that any tool or method that can help verify the accuracy of underlying transactions would significantly increase confidence in the numbers, as it is currently impossible to fully validate all data due to the sheer volume and complexity involved (S6, 2024, pp. 27-28).

Blockchain Potential. The analysis of the category “Blockchain Potential” and its sub-categories aimed at matching the Challenges mentioned by interview candidates to potential use cases or applications where the interviewees see potential benefits or advantages of implementing blockchain technology. The most cited are where the implementation of blockchain technology seems sensible is the sub-category “Data Quality”, followed by “Mitigation of (Audit/Accounting) Fraud/Error Risks”, and “Automation”. Or notable mentions were “Transparency” and “Security and Access”.

Data Quality. The sub-category “Data Quality” refers to scenarios where the interview candidates believed the utilization of blockchain technology could improve the quality of the underlying data used to perform FDD. This area clearly coincides with the Challenges with regards to the sub-category “Data”. All candidates saw the potential for a beneficial impact of using blockchain technology to improve the quality of underlying data. S1 reflects on the implications of advancements in AI and document creation technology, emphasizing the importance of being able to verify the authenticity of documents, ensuring they are original and have not been tampered with. They suggest that blockchain technology could offer a high degree of certainty in verifying document authenticity (S1, 2024, pp. 44-46). S2 is discussing the benefits of automating the data validation process, which is typically a task performed by auditors. They emphasize that any tool or method that can provide a "stamp of reliable data" would be valuable, as it would reduce the need for manual checks and reconciliation, thereby saving time. The speaker agrees that if such automation can improve the timing and reliability of data, it would indeed be helpful for the due diligence process (S4, 2024, pp. 50,86). S3 is discussing the potential benefits of using blockchain technology and smart contracts in the due diligence process to ensure the integrity of documents. They note that while vendors may provide dates of changes to documents, they do not necessarily verify the documents' integrity. Obtaining high-quality documents and ensuring data completeness can be challenging, especially when the data's origin is unclear or appears to be fabricated for the due diligence process. The speaker believes that more accurate data would lead to better investment models, allowing insurers and investment banks to offer more precise loans, supporting the financial aspects of transactions. They also mention that tampered data or unclear financial statements can significantly alter an investor's planned timeline, potentially making the investment economically unfeasible (S3, 2024, pp. 12,54,58,61). Speaker 4 affirms, stating that having more current data would indeed be helpful. They explain that their requests for due diligence typically include intra-annual data, such as monthly or quarterly figures, to better understand the evolution of the company's performance and any seasonality in working capital, which could impact pricing. They note that many companies do not prepare such frequent financial updates, and statutory financial statements are often available only six months after the year's end, leading to a constant delay in data availability. Therefore, they conclude that real-time analytics would be very beneficial for their work and further suggests that tax authorities could benefit from having access to accurate numbers validated by blockchain technology (S4, 2024, pp. 27-28, 34, 68). S5 suggest that improvements in these areas would enhance the overall due diligence process, including financial due diligence. They also mention the significance of ensuring data consistency, such as matching currencies and units (millions vs. thousands), and that having tools to check these details would be

very beneficial (S5, 2024, pp. 23-26, 44-45). Finally, S6 believes that having a method to confirm the accuracy of all underlying transactions and data would be extremely beneficial. They suggest that using blockchain technology for accounting entries could provide proof that all bookings are legitimate. The current state of accounting data is often messy, and blockchain could improve data quality and relieve the burden of verifying data. The technology could offer confidence that the data is correct, accurate, and has not been manipulated, which is currently difficult, if not impossible, to achieve to this date due to the volume of information to be reviewed. The speaker sees the improvement of data quality and the assurance of data completeness and correctness as the most critical and immediate benefits that blockchain technology could bring to the field. As with the subcategory of “Data Quality”, all candidates saw potential for benefits of implementing blockchain technology to mitigate the risks of deliberate or inadvertent fraud and/or errors with regards to auditing or accounting.

Manipulation/Error Risk. Regarding the category “Manipulation/Error Risk”, S1 emphasizes the proper accounting treatment of inventory according to different GAAPs. They use the example of a car manufacturer purchasing seats for cars that have not yet been sold or produced. In such a case, the seats should be recorded as inventory on the balance sheet and paid for with cash, affecting the company's working capital. However, some companies incorrectly record these costs as material expenses in the profit and loss statement (PNL) before the inventory is used in production, which is not the correct accounting practice. The speaker notes that this is often due to a lack of expertise rather than intentional fraud, but it would be considered fraudulent if done knowingly (S1, 2024, p. 32). S2 is suggesting that blockchain technology could be particularly applicable to the audit sector. They note that auditors often perform many repetitive tests, implying that blockchain could potentially streamline or automate some of these processes (S2, 2024, p. 107). Speaker 3 agrees that blockchain's ability to attest to the validity of information could be more useful in auditing than in financial due diligence, which often prioritizes speed and reliable indications over absolute correctness (S3, 2024, pp. 31-32). More generally, they mention “Fraud detection” as a potential application that could benefit from blockchain technology (S3, 2024, p. 30). Further, they argue that the implementation of smart contracts could also be beneficial, as they can document financial developments and enforce strict rules in calculations, providing a transparent transaction history (S3, 2024, pp. 34,42-44). S4 discuss concerns related to the integrity of accounting and auditing data. They acknowledge that traditional accounting records can be tampered with, which can lead to accounting fraud. However, they point out that the issue is not limited to intentional fraud but also includes negligence or simple mistakes that can affect the accuracy of financial records. They also touch on the potential benefits of blockchain technology for tax authorities. According to the interviewee,

Blockchain's validation mechanisms could ensure that tax authorities have access to accurate numbers, as the technology provides a more secure and reliable way to maintain financial records. This could assist not only in preventing fraud but also in reducing errors and ensuring compliance with tax regulations (S4, 2024, pp. 64-68). S5 concurs with this perspective, acknowledging that historical data, which is critical in auditing, could benefit from blockchain technology. However, they note a challenge with (financial) assumptions made, which are often not documented and difficult to encode, making their integration into blockchain systems complex (S5, 2024, pp. 23-24, 93-94). Finally, S6 is discussing the potential benefits of using blockchain technology to improve the accuracy and integrity of financial data. They suggest that blockchain could be used to confirm the legitimacy of all underlying transactions and data, which would be particularly helpful given that accounting data is often messy and challenging to verify (S6, 2024, pp. 18-20). Additionally, they acknowledge that in traditional accounting data can be manipulated, making it difficult to ascertain whether certain bookings exist. According to S6, Blockchain could potentially address this issue by providing a more secure and transparent record of financial transactions (S6, 2024, p. 42). In summary, the finding, that blockchain technology may be more beneficial in auditing and accounting turned out to be pivotal as it sharpened the researcher's understanding on how blockchain technology can really impact FDD. As this insight was confirmed by all speakers it was deemed crucial to discuss it to greater extent in the discussion following the analysis chapter.

Automation. The analysis of the sub-category "Automation" was mentioned explicitly by speakers 1 through 4. Speaker 3 discusses the complexities of financial due diligence, particularly when it involves legal compliance and expanding into new markets. They note that different assumptions need to be made for various countries, such as tax rates and financial conditions, which could be streamlined through automation. The speaker emphasizes the difficulty in ensuring the continued validity of data throughout the due diligence process and suggests that automation could improve both the process and the end results (S3, 2024, p. 28). The speaker also mentions that while they would not necessarily attribute issues in the data collection process to malice or intentional wrongdoing, automating and validating these steps would provide assurance of the data's accuracy. This would be beneficial to investors, who could then trust the data without reservation (S3, 2024, pp. 30,34,52-54). They conclude that automation or the use of a tokenized system could significantly enhance the due diligence process by ensuring the validity of all data involved (S3, 2024, p. 61). Lastly, speaker four adds the view that blockchain could be particularly useful in the execution of a Share Purchase Agreement (SPA). Blockchain technology could provide guarantees to both parties at the closing of the transaction, ensuring that the contract is executed correctly in terms of payments and warranties (S4, 2024,

p. 16). Furthermore, during the second step of executing the SPA, when shares are exchanged for cash, the speaker sees the potential for smart contracts to be very useful. Smart contracts could automate and secure the process, ensuring that the exchange of shares and cash is conducted as agreed upon in the SPA (S4, 2024, p. 34).

Transparency. Furthermore, speakers 3 and 5 briefly touch on topics classified under the sub-category “Transparency”. In that regard, S3 is discussing the advantages of using smart contracts and blockchain technology in managing documents within the due diligence process. They highlight that blockchain could be particularly useful in verifying whether a document has been altered, as current systems may not adequately check the integrity of document changes. Additionally, blockchain could clarify ownership and the value of assets. S3 also addresses concerns about the security of data within Virtual Data Rooms (VDRs). Once documents are downloaded from the VDR, it becomes difficult to track who has accessed or deleted them. In their view, blockchain technology could provide a clear and auditable trail of who has had access to sensitive documents, ensuring that the data is not improperly distributed to unauthorized third parties (S3, 2024, pp. 10,30-32). S5 emphasizes the importance of process transparency rather than data transparency. They highlight the concept of “Revisionsicherheit,” [“revision security”] a German term for audit-proof or tamper-proof records, which ensures that once data is entered into the blockchain, it cannot be altered. This feature allows for clear tracking of who made changes, providing accountability even when errors occur. Speaker 5 believes that this aspect of blockchain — the ability to see changes and understand what has been altered in the process — is probably the most significant advantage, especially in the context of business processes where knowing the history of revisions is crucial. They admit to not being an expert but recognizes the potential of blockchain to improve transparency and accountability in business operations (S5, 2024, pp. 44-45).

“Hypothesis related”. The category “Hypothesis related” grouped all information and/or feedback that directly or indirectly touches the subject of one or more of the hypotheses formulated earlier. They have been derived from six statements within the info material sent out to the interview candidates prior to the interviews. The full presentation is included in Appendix A.

AI. With regards to the first statement, S1 is concurring with the notion that M&A are lengthy and inefficient to some extent. They are precise that especially having the wrong advisors can negatively impact the efficiency of M&A transactions. Advisors who are primarily focused on their own success may aim to complete as many transactions as possible, leading to a process that is intense and often drawn out longer than necessary, resulting in inefficiency (S1, 2024, p. 71). S2 also acknowledges that some M&A transactions can be lengthy and somewhat

ineffective. Further, they specify the challenges faced during M&A transactions, particularly in terms of data collection in transactions involving SMEs. They note that it can take several weeks for a small company to gather all the necessary data, which may often be in paper form. Transferring this paper data into a digital format, such as Excel, for analysis is a time-consuming process. However, the speaker clarifies that this is not the case for all M&A transactions (S2, 2024, pp. 14,74). Speaker 3 agrees with the statement that M&A transactions are notoriously lengthy and somewhat ineffective. They attribute this to time constraints that often require accelerating the transaction process, which in turn is associated with long working hours (S3, 2024, p. 36). S4 concur with the notion that M&A transactions can be lengthy and somewhat ineffective but suggest that this is not universally true and depends on the specific circumstances of the transaction. As S2 earlier, they highlight challenges faced during the financial due diligence process in Italy, pointing out that especially transactions including SMEs tend to be problematic. In his experience, these companies often have understaffed financial departments, making it difficult to fulfill extensive information requests. This can lead to inefficiencies in the due diligence process, impacting budget, effort, and team management. When a target company provides audited accounts with management accounts that reconcile with financial statements, the due diligence process is more efficient and less time-consuming. Conversely, if a company's accounts are unaudited and the management accounts do not reconcile with statutory financial statements, the process becomes much more difficult (S4, 2024, pp. 16,20,52). S5 express uncertainty about the statement that M&A transactions are inherently lengthy. While they acknowledge that transactions can be protracted, they also believe that specialists in the field have become proficient enough to expedite the process significantly. The speaker suggests that there are experts who are highly skilled at conducting transactions quickly and efficiently, leading him to partially disagree with the statement that M&A transactions are generally lengthy and ineffective (S5, 2024, p. 51). S6 acknowledges that M&A transactions often take longer than expected. They attribute this to the optimistic assumption that the process can be completed on time, which is seldom the case. The due diligence phase tends to reveal unexpected issues that can prolong the transaction. This includes the preparatory stage, where the sell-side might discover critical documents in the data room that require careful handling. While these factors contribute to extending the timeline beyond initial estimates, the speaker is uncertain whether to characterize the process as ineffective. They suggest that M&A transactions are generally tightly managed and express hesitation in labeling them as inherently ineffective (S6, 2024, p. 34).

A2. Concerning the second statement, S1 believes that due diligence, when conducted by a competent advisor, is an effective process with a clear deadline to work towards. They argue

that due diligence is not the most time-consuming aspect of a transaction; rather, developing the equity story and rationale behind the deal takes more time. They conclude that, while due diligence is not as lengthy as the commercial aspects and the development of the deal's rationale, it is still a significant part of the process, falling somewhere between the middle and the lengthier stages of a transaction (S1, 2024, pp. 73-75). S2 is emphasizing the time constraints of due diligence processes, particularly in the context of private equity funds acquiring companies. They mention that such transactions typically cannot extend beyond three to four weeks due to the need to submit non-binding offers within that timeframe. Regarding the costliness of the financial due diligence phase, S2 is uncertain if it is the most expensive part of the process. They suggest that other phases, such as organization, negotiation, and legal work, may incur higher costs. As for the time consumption of due diligence, S2 indicates that they cannot make a definitive comparison with other phases of the transaction process. They conclude that the applicability of these observations about time and cost may vary and are not universal to all due diligence processes (S2, 2024, pp. 74,78-80). S3 adds the notion of relative complexity and time required for different types of financial due diligences. They rank commercial due diligence as the most time-consuming, followed by financial due diligence, then tax due diligence, with tech and ESG due diligence coming afterward. Regarding the costliness of due diligence, Speaker 3 does not believe it is always the most expensive phase of the transaction process. They explain that investors may prioritize certain due diligence processes based on criticality and potential red flags, initiating other due diligence processes only if no major issues are found. While the investment in due diligence is significant, Speaker 3 suggests that when compared to the overall enterprise value and the final purchase price, the cost of due diligence is relatively small. They affirm that due diligence is indeed time-consuming but are hesitant to agree that it is the costliest phase, without qualification (S3, 2024, pp. 20,36-38). S4 simply agrees with the statement that due diligence is one of the most time-consuming and, as a result, one of the costliest phases of the entire process (S4, 2024, p. 54). Speaker 5 acknowledges that while due diligence can be work-intensive, it is not necessarily time-consuming. They mention instances where due diligence was completed within a month by a large team working intensively, which implies that the process can be expedited. However, they fully agree with the sentiment due diligence is a costly phase due to the significant workload involved (S5, 2024, pp. 51-56). Lastly, S6 is describing the extensive and complex nature of the due diligence process, particularly in relation to document review. They note that for a company, the process can involve reviewing tens of thousands, or even over a hundred thousand pages of documents, which is a substantial amount of information to process. Due to the international scope of many businesses, the due diligence team needs to include tax experts and accountants from various

countries who can review specific tax filings in each jurisdiction. This makes the process not only time-consuming but also costly, as it requires a significant effort to ensure that nothing is overlooked. S6 fully agrees with the statement that due diligence is both time-consuming and costly, emphasizing that the many advisors and personnel involved in due diligence could otherwise be contributing to the day-to-day operations of the business, which adds to the overall cost.

A3. S1 emphasizes with the importance of financial due diligence, especially its impact on earnings and post-deal performance. They reference a previous example where a significant drop in sales led to poor post-deal performance, highlighting the practical consequences that can arise from inadequate due diligence (S1, 2024, p. 77). S2 express that it is challenging to directly attribute poor post-deal performance to the due diligence process itself. They mention that in certain situations, such as the inventory case previously discussed, issues can be difficult to identify during due diligence, especially if the management of the target company is not cooperative. When necessary, documents are not provided, due diligence reports may include disclaimers indicating that certain analyses could not be completed (S2, 2024, pp. 80-84). Ultimately, the effectiveness of due diligence can depend on the willingness of individuals to collaborate and provide the required information. Which suggest a potential disparity in information availability, which could lead to the risk of moral hazard in the case of bad actors. S3 emphasizes the critical role of financial due diligence in investment decisions, stating that its results often determine whether an investment will proceed. They also mention commercial due diligence as another key factor influencing investment outcomes. Speaker 3 believe that thorough and precise due diligence is essential across all types of due diligence processes. If potential issues are not identified and communicated to investors, it could lead to significant problems and additional costs post-investment to mitigate risks that could have been addressed earlier. Therefore, they strongly support the importance of conducting clear and concise due diligence, including financial due diligence, to inform investment decisions and manage risks effectively (S3, 2024, pp. 16, 40). Speaker 4 acknowledges that poor, rushed, or flawed financial decisions have the potential to negatively impact post-deal performance. However, like S2, they are cautious to state that such decisions may not be the sole reason for poor performance, suggesting that while they can significantly influence outcomes, there may be other contributing factors. Speaker 4 seems to imply that the impact of financial due diligence on performance is substantial but not necessarily exclusive (S4, 2024, pp. 54-56). Finally, S6 expresses a nuanced view on the impact of financial decisions on post-deal performance. They partially agree that rushed or flawed financial decisions can lead to poor outcomes after a deal is completed. However, they believe that post-deal performance is more heavily influenced by the thoroughness of due

diligence on the business plan, strategy, and other forward-looking factors rather than solely on historical financials. They also note that missing information during due diligence can occur if the process is rushed or if not, all aspects are carefully examined. Additionally, they point out that sometimes issues are identified, but the decision to proceed with the transaction is made anyway, possibly due to a strong desire to complete the deal, as they suggest may have been the case with the acquisition of Monsanto (S6, 2024, pp. 36-38).

A4. With regards to 4A, Speaker 1 states that their department does not currently use blockchain technology, nor do they see investment bankers utilizing it in M&A transactions. They mention that advisory personnel may explore the technology to assist companies with data management and cloud transitions. However, from a technical standpoint and considering the tools currently used in their department, blockchain is not being currently employed. Speaker 1 anticipates that blockchain may become relevant in the future, but it is not part of their present operations (S1, 2024, pp. 77-79). Speaker 2 mentions that there is a department within their organization that began development around 2021 or 2022, which is dedicated to blockchain technology and its applications. They also note that this department has its own floor within the building. However, Speaker 2 do not provide further details about the department's specific functions or activities (S2, 2024, pp. 88-90). Speaker 3 suggests that consulting firms, which advise other companies on implementing blockchain technology due to its advantages, likely also have internal projects to apply the knowledge and experience they have gained from client engagements. They believe it would be beneficial for these firms to use their insights to accelerate blockchain adoption. However, Speaker 3 notes that when introducing new software and technologies, it is crucial to ensure that all parties involved are familiar with and accepting of the technology. They also mention that private equity investors especially need to be convinced of the technology's advantages before adopting it (S3, 2024, p. 44). Speaker 4 acknowledges that they are not informed about the use of blockchain technology in the financial due diligence process. They are aware that their institution, a Big 4 company, has recognized the potential of blockchain and has a dedicated department at the global level. However, Speaker 4 is not privy to the specifics of the department's activities or how its work might affect their daily tasks (S4, 2024, pp. 16, 60). Lastly, Speaker 5 acknowledges that there is significant room for improvement in the quality and availability of data within due diligence processes. They believe that accountants might have a better understanding of the potential for blockchain in this area. When asked about [DAX-listed German Bank] involvement with blockchain, Speaker 5 confirms that like many banks, they are exploring how to leverage blockchain technology, but their focus seems to be more on its application in transaction banking and internal bookings rather than in M&A activities (S6, 2024, pp. 40-42).

A5. With regards to 5A, S1 acknowledge that financial data and techniques used in transactions can indeed be altered if an individual with the necessary access and discretion intends to manipulate the financials. They confirm that such changes are possible within their transactions (S1, 2024, p. 83). Speaker 3 concurs with the notion that there is a risk of documents being tampered with during financial due diligence and adds it can be exacerbated by the large volume of documents involved. They suggest that such tampering may not necessarily be due to malicious intent but could also be attributed to errors in the data collection process, especially when systems or processes are transferred to another system (S3, 2024, pp. 10,34,52-54). This notion is also confirmed by S4 who acknowledge that in traditional accounting and auditing, data and records can be tampered with, which could potentially lead to accounting fraud. They also consider that not all issues arise from intentional fraud; negligence or simple mistakes can also occur. Nonetheless, Speaker 4 emphasizes that even unintentional errors can escalate into serious problems, potentially leading to accusations of fraud, as the board of directors is ultimately responsible for the accuracy of the company's financial numbers (S4, 2024, pp. 64-68). Speaker 5 agrees that any tool or process that can enhance data accuracy, validity, and originality would improve the due diligence process. They propose, that increased reliability and having data that is non-adjustable and non-changeable is beneficial. They note that some European accounting standards are moving towards allowing only digital records provided they are tamper-proof, indicating a trend towards more secure and immutable record-keeping and the need for new systems allowing for these requirements. Lastly, Speaker 5 shares their experience recounting an incident where a bank made a 200-million-dollar mistake that was possibly only discovered by chance during their due diligence process, underscoring the importance of mechanisms that can double-check the sensibility of financial decisions (S4, 2024, pp. 10,22-26, 69-74). Finally, Speaker 6 observe that accounting data is often disorganized and believes that improvements in this area could enhance the quality of the underlying data and reduce the effort required to verify it. This is partially because data in traditional accounting systems can be tampered with. They suggest that having more reliable methods to ensure data accuracy would provide confidence that the data has not been manipulated, a level of assurance that is currently difficult to achieve (S6, 2024, pp. 20,42).

A6. On the topic of information asymmetry Speaker 1 note that information asymmetry is often deliberately managed by the sell-side and can impact the transaction both negatively and positively, depending on the perspective and transparency of the parties involved. Additionally, they specify that, particularly when dealing with strategic clients who are competitors in the market may lead to increased reluctance to share sensitive information. However, Speaker 1 suggests that while this reluctance occurs, it is not the standard scenario (S1, 2024, pp. 20,83). Speaker

3 discuss the challenges of information asymmetry during the due diligence phase of M&A transactions, where the seller, including the target company, may be tempted to alter documents at the last minute to align with their sales narrative. They emphasize the importance of understanding the management team's thought process and the flow of information to grasp asymmetric information that is not immediately apparent. Speaker 3 notes that gaining full insights and understanding how a company operates requires time, which is often limited in due diligence, particularly in auction settings with multiple interested parties. The need for speed can compromise transparency, leaving uncertainty about whether all valid information has been provided or if some details have been intentionally omitted for strategic reasons. Speaker 3 is aware of instances where certain parties may not necessarily hide information but may push conflicting information into the background to support their sales story. They acknowledge that while this is not the norm, it does happen, and they agree with the sentiment that such practices can occur in M&A transactions (S3, 2024, pp. 10,24,56). Speaker 5 acknowledges that reducing information asymmetry is a primary objective in their role, and they recognize that transparency and asymmetry are closely related (S5, 2024, pp. 84,92). Speaker 6 agrees that information asymmetry and a lack of transparency can negatively affect M&A deals. They note that even with a thorough review of data in the Virtual Data Room (VDR) and diligent questioning, if the other party is concealing information, it will likely result in adverse outcomes for the party conducting the due diligence (S6, 2024, p. 42). Speakers 2 and 4 simply agreed with the statement without further comments (S2, 2024, p. 97).

14. Discussion

This chapter reconciles the empirical evidence gathered with the theoretical constructs posited in the form of hypotheses and research questions. The intent is to dissect and discuss the results in a manner that not only elucidates the findings but also contextualizes them within the broader landscape of M&A activities. The discussion will delve into the critical issues identified through rigorous analysis of FDD practices, scrutinizing the multifaceted challenges that practitioners face in the current paradigm. The subsequent discourse will pivot to the potential of blockchain technology as a mitigation for these challenges, examining its capabilities and limitations in the context of the empirical data collected. The synthesis of these discussions aims to provide a comprehensive and nuanced understanding of the potential impact of blockchain applications within FDD. By meticulously analyzing the empirical data against the backdrop of the established hypotheses, this chapter endeavors to offer a definitive stance on the applicability and efficacy of blockchain technology in addressing the perennial challenges of FDD.

H1: Length of Pre-Closure Phase and Transaction Costs. Hypothesis H1, suggests that an extended pre-closure phase in M&A transactions correlates with increased transaction costs, having a detrimental effect on the overall cost efficiency of the transaction. This hypothesis is supported by a range of findings from various speakers. The interviews confirm that the length of the pre-closure phase, which includes FDD, does indeed contribute to higher transaction costs. Speaker 1 (Pos. 71) and Speaker 3 (Pos. 36) acknowledge that M&A transactions are sometimes lengthy and can be inefficient. This inefficiency can lead to increased costs, supporting the hypothesis that a longer pre-closure phase has a negative effect on overall transaction costs.

Firstly, the data gathering process, particularly with SMEs, is highlighted as a significant bottleneck/time sink. Speaker 2 (Pos.14) and Speaker 4 (Pos. 16) both note that the collection of data is not only laborious but also extends the pre-closure phase, directly impacting transaction costs. This is compounded by the quality of data provided, which is frequently subpar—outdated or inaccurately constructed—necessitating additional time for verification and correction, as pointed out by Speaker 3 (Pos.12, 52) and Speaker 5 (Pos. 22). Moreover, the due diligence phase involves intensive cleaning, reconciling, and reviewing of data and documents, which Speakers 1, 2, 3, 5, and 6 identify as a critical challenge that contributes to the lengthening of the pre-closure phase. The susceptibility to data or document manipulation, as indicated by Speaker 1 (Pos. 32), Speaker 2 (Pos. 33-34), and Speaker 3 (Pos. 10), introduces the need for additional verification steps, further elongating the due diligence timeline. Speaker 2 (Pos.8) and Speaker 4 (Pos. 20) also bring attention to the complexities involved in transactions with non-audited financial data. The lack of audited financials increases the difficulty and duration of the due diligence process, thereby inflating transaction costs. This complexity is echoed in international M&A transactions, where Speakers 3 and 4 note the additional layers of accounting and tax reconciliation required, which can significantly extend the pre-closure phase.

The challenges associated with SMEs are particularly pronounced, as Speaker 1 (Pos. 18) and Speaker 4 (Pos. 16,20) observe. The due diligence process in these cases can be more demanding in terms of budget, effort, and team management, straining resources. Speaker 2 (Pos. 14) further explains that the data collection process can span several weeks, especially when converting paper records to digital formats, adding to the pre-closure duration. The role of audits in streamlining the due diligence process is underscored by Speaker 2 (Pos. 8), who notes that the presence of an audit instills confidence in financial figures and can expedite the process, whereas its absence can lead to delays. Additionally, Speaker 6 points out the time-consuming nature of organizing document uploads to the Virtual Data Room (VDR), which can significantly impact the length of the pre-closure phase. The urgency often required in due diligence,

particularly in auction settings, can lead to compromises in transparency and thoroughness, as mentioned by Speaker 3 (Pos. 56). This rush can result in a longer pre-closure phase if issues are subsequently uncovered. The due diligence phase's time-consuming and costly nature is acknowledged to various extents by all speakers (Speakers 1, 2, 3, 4, 5, 6), Speaker 3 (Pos. 20, 36-38) also notes the variability in the complexity and time required for different types of financial due diligences, with some necessitating more time than others. Lastly, Speaker 6 (Pos. 34) describes the due diligence process as extensive and complex, especially when dealing with document review and international scope, which inherently makes it both time-consuming and costly.

In conclusion, these findings collectively support the hypothesis that a longer pre-closure phase is associated with higher transaction costs, negatively affecting the cost efficiency of M&A transactions. The evidence presented by the speakers underscores the multifaceted nature of due diligence and its significant impact on the duration and expense of the pre-closure phase in M&A activities.

H2: Cost Reduction in Due Diligence. The due diligence phase is identified as one of the more costly phases of M&A transactions. Speaker 4 (Pos. 54) and Speaker 5 (Pos. 51-56) note that due diligence can be work-intensive and costly, especially when a large team is involved. However, the findings from various speakers indicate that there are significant opportunities for cost reduction if this phase is streamlined. Naturally, the areas identified for cost reduction overlap with potential reasons for protracted FDD identified in the previous segment.

A primary concern, as noted by Speaker 2 (Pos.14) and Speaker 4 (Pos. 16), is the time-consuming nature of data gathering, particularly with small and medium-sized enterprises (SMEs). The quality of data provided often falls short of expectations, with issues such as outdated or constructed data complicating the process (S3, 2024, pp. 30,34), (S5, 2024, p. 22). This suggests that improving the efficiency of data collection and ensuring the quality of the data could considerably shorten the due diligence timeline and reduce costs. The introduction of automated processes has been proposed as a solution to alleviate the issues encountered in data collection and processing (S3, 2024, pp. 30,34). Automation could mitigate the labor-intensive nature of due diligence in SMEs, which is exacerbated by their often-understaffed financial departments and lack of financial expertise (S4, 2024, pp. 16,20). Data and document manipulation risks present another challenge, with susceptibility to manipulation being a significant concern (S1, 2024, p. 32; S2, 2024, pp. 33-34; S3, 2024, p. 10). Transactions involving audited financial figures are generally less complex and costly in terms of due diligence, as opposed to those with non-audited financial data, which are described as more "difficult" and "painful" (S2,

2024, p. 8; S4, 2024, p. 20). This highlights the potential for cost savings in ensuring the availability of audited data. Virtual Data Rooms (VDRs) are central to data exchange, but tracking access post-download is challenging, which can lead to security concerns (S3, 2024, pp. 10,32) (S4, 2024, p. 24). Professional VDRs like iDeals offer more reliable documentation and data exchange, suggesting that investing in better VDR solutions could enhance efficiency and security, potentially reducing due diligence costs (S4, 2024, p. 24). Instances of document tampering and discrepancies in financial data have been observed, partially leading to significant post-deal issues (S1, 2024, p. 44; S3, 2024, pp. 10,32,56,58,61; S4, 2024, pp. 57-58, S5, 2024, p. 22, S6, 2024, p. 18). This underscores the importance of reliable data, as it reduces the need for additional checks and reconciliations (S2, 2024, pp. 50,60,86). Blockchain technology emerges as a promising tool to improve data quality and mitigate audit/accounting fraud or error risks (S1, 2024, pp. 44-46, S2, 2024, p. 107, S3, 2024, pp. 12,54,58,61, S4, 2024, pp. 27-28,34,68, S5, 2024, pp. 23-26,44-45, S6, Pos. 18-20, 27-28, 42). The automation of certain due diligence processes could streamline the process (S3, 2024, p. 28) (S4, 2024, pp. 16,34), and the enhanced transparency and security of data with blockchain could further support cost reduction efforts (S3, 2024, pp. 10,30-32). While due diligence is acknowledged as one of the more lengthy and costly phases (S1, 2024, p. 71) (S2, 2024, pp. 14,74) (S3, 2024, p. 36) (S4, 2024, p. 54) (S5, 2024, p. 51); (S6, 2024, p. 34), it is not always the most expensive phase, but its significance in terms of cost cannot be overlooked (S3, 2024, pp. 20,36-38) (S4, 2024, p. 54) (S5, 2024, pp. 51-56) (S6, 2024, p. 34). Poor post-deal performance has been linked to inadequate due diligence (S1, 2024, p. 77) (S2, 2024, pp. 80-84) (S3, 2024, pp. 16,40) (S4, 2024, pp. 54-56) (S6, 2024, pp. 36-38), reinforcing the need for thorough and efficient due diligence practices. However, it cannot be clearly said that inadequate FDD was the reason for bad post-deal performance or the only factor that influences post-deal performance. Although the use of blockchain in due diligence is not widespread, its potential for improving the process is recognized (S1, 2024, pp. 77-79) (S2, 2024, pp. 88-90) (S3, 2024, p. 44) (S4, 2024, pp. 16,60) (S6, 2024, pp. 40-42). These findings collectively support the hypothesis that there is a substantial potential for cost reduction in due diligence if the process is considerably shortened through improved data management, automation, facilitated through the adoption of technologies like blockchain.

These findings, with their respective sources, suggest that there are multiple areas within the due diligence process where costs could be reduced, particularly through the improvement of data collection and processing, the use of more reliable and faster tools, and potentially through the implementation of blockchain technology to automate and secure the process.

H3: Impact of Information Asymmetry on FDD Quality. The hypothesis H3 posits that information asymmetry, a lack of transparency and especially lacking quality of critical underlying data have a detrimental impact on the quality of financial due diligence (FDD). This is supported by a multitude of findings from various speakers, which highlight the challenges and risks associated with information asymmetry in FDD processes.

Firstly, the data gathering process, particularly involving SMEs, is reported to be time-consuming (S2, 2024, p. 14) (S4, 2024, p. 16). This is compounded by the often-subpar quality of data provided, which may be outdated or inaccurately constructed (S3, 2024, pp. 30, 34) (S5, 2024, p. 22). Human error and deficiencies in data collection processes further exacerbate these issues (S5, 2024, p. 22). The subsequent data cleaning, reconciling, and reviewing processes are not only tedious but also consume significant time, adding to the inefficiency (S1, 2024, p. 60) (S2, 2024, pp. 8,14) (S3, 2024, p. 12) (S5, 2024, p. 22) (S6, 2024, p. 4). Moreover, the susceptibility to data and document manipulation presents a serious risk (S1, 2024, p. 32) (S2, 2024, pp. 33-34) (S3, 2024, p. 10). This risk is heightened by the difficulty in tracking document access and deletions once they are downloaded from Virtual Data Rooms (VDRs) (S3, 2024, pp. 10,32). Discrepancies between reported financials and the actual state post-deal further underscore the consequences of information asymmetry (S4, 2024, pp. 57-58) (S5, 2024, p. 22). In the context of SMEs, the challenges are particularly pronounced. SMEs often exhibit a high enterprise value that is not reflected in their financial books (S1, 2024, p. 18) (S4, 2024, pp. 16,20), and their financial departments are frequently understaffed, leading to extensive information requests (S4, 2024, pp. 16,20). The lack of structure in due diligence processes for smaller companies (S2, 2024, p. 8) only adds to the complexity and potential for information asymmetry. The role of VDRs is pivotal as they serve as central places for data exchange. However, they come with their own set of security concerns (S3, 2024, pp. 10,32) (S4, 2024, p. 24). While professional VDRs provide better documentation and tracking of data uploads and changes (S4, 2024, p. 24) (S6, 2024, pp. 27-28), they are not immune to the challenges of ensuring data integrity. Real-life cases of document tampering and discrepancies in financial reports (S1, 2024, p. 44) (S3, 2024, pp. 56,58,61) (S4, 2024, pp. 57-58) and significant errors in financial data discovered incidentally (S5, 2024, p. 22) further validate the concerns regarding information asymmetry and further reinforce the notion that information access, originality, validity, and actuality are crucial in all underlying (sub) due diligence processes. The value of tools or technology that provide information more quickly and reliably (S2, 2024, pp. 50,60,86) (S3, 2024, pp. 33-34) (S4, 2024, pp. 28,34) and the preference for more frequent and timely financial data for better due diligence, Speaker 4 (S4, 2024, pp. 28,34) highlights the need for improvements in information access and data quality. Blockchain technology emerges as a potential

solution to improve data quality (S1, 2024, pp. 44-46) (S2, 2024, pp. 48,50,86) (S3, 2024, pp. 12,54,58,61) (S4, 2024, pp. 27-28,34,68) (S5, 2024, pp. 23-26, 44-45) (S6, 2024, pp. 18-20,42), mitigate audit/accounting fraud/error risks (S1, 2024, p. 32)_(S2, 2024, p. 107) (S3, 2024, pp. 31-32,34, 42-44) (S4, 2024, pp. 64-68) (S5, 2024, pp. 23-24,93-94) (S6, 2024, pp. 18-20,42). Finally, the management of information asymmetry by the sell-side impacts transactions (S1, 2024, pp. 20,83) (S3, 2024, pp. 10,24,56) (S5, 2024, pp. 84,92) (S6, 2024, p. 42), challenges in understanding asymmetric information due to time constraints and the need for speed in due diligence can compromise transparency (S3, 2024, pp. 10,24,56)

In conclusion, the findings from various speakers provide substantial evidence that supports the hypothesis H3. The impact of information asymmetry on FDD is clear, with issues ranging from data collection to document security, all of which affect the quality, validity, and reliability of the due diligence process. The potential for blockchain technology to mitigate these risks points to a promising direction for future enhancements in the field.

H4: Room for Improvement in FDD. The hypothesis H4 posits that there is significant room for improvement in financial due diligence (FDD), particularly in enhancing efficiency and data quality. This assertion is substantiated by a series of findings from various speakers, which collectively paint a picture of the current state of FDD and the potential for technological advancements, such as blockchain, to address existing deficiencies.

Firstly, the data collection process in FDD is notably time-consuming and cumbersome, especially for small and medium-sized enterprises (SMEs), as highlighted by Speaker 2 (S2, 2024, p. 14) and Speaker 4 (S4, 2024, p. 16). The quality of data provided is frequently suboptimal, with issues such as outdated or inaccurately constructed data, as reported by Speaker 3 (S3, 2024, pp. 12,52) and Speaker 5 (S5, 2024, p. 22). Human error is a significant contributor to these data quality issues (S5, 2024, p. 22), and the laborious tasks of cleaning, reconciling, and reviewing data/documents are identified as critical Challenges across multiple speakers (S1, 2024) Pos. 60; (S2, 2024)Pos. 8,14; (S3, 2024) Pos. 12; (S5, 2024) Pos. 22; (S6, 2024) Pos. 4]. Speaker 3 suggests that automated processes could alleviate some of the issues encountered in data collection and processing (S3, 2024, pp. 30,34). Further, the risks associated with data and document manipulation are also a notable concern. Speaker 1 (S1, 2024, p. 32), Speaker 2 (S2, 2024, pp. 33-34), and Speaker 3 (S3, 2024, p. 10) all acknowledge the vulnerability of FDD to such risks. The difficulty in tracking document access and deletions once they are downloaded from Virtual Data Rooms (VDRs) exacerbates this issue (S3, 2024, pp. 10,32), and there is a potential for tampering with documents, although it must be said that it may not always stem from malicious intent (S2, 2024, p. 32). Transactions involving audited financial data are

generally less complex and are considered more reliable, whereas non-audited financial data complicates and prolongs the FDD process (S2, 2024, p. 8) (S4, 2024, p. 20). International M&As introduce additional complexity due to the need for accounting and tax reconciliation across different jurisdictions (S3, 2024, p. 56) (S4, 2024, p. 20), with Speaker 3 suggesting automated transfer calculations as a potential remedy (S3, 2024, p. 56). The challenges are further amplified in the context of SMEs. M&A transactions involving SMEs are particularly challenging, often due to a lack of financial expertise and understaffed financial departments (S1, 2024, p. 18) (S4, 2024, pp. 16,20). The due diligence process in these smaller companies is less structured and more labor-intensive (S2, 2024, p. 8). Security concerns surrounding VDRs are also significant, with VDRs being identified as a single-point vulnerability. Once documents are downloaded, tracking access becomes challenging (S3, 2024, pp. 10,32), although professional VDRs like iDeals offer better documentation and data change tracking (S4, 2024, p. 24) (S6, 2024, pp. 27-28) they still offer room for improvement. Real-life cases, such as instances of document tampering and discrepancies in financial data (S1, 2024, p. 44) (S3, 2024, pp. 56,58,61) (S4, 2024, pp. 57-58) (S5, 2024, p. 22), and significant errors in financial data discovered incidentally (S5, 2024, p. 22), underscore the risks inherent in the current FDD processes. The infamous Wirecard scandal serves as a stark reminder of the potential for fraudulent manipulation of historical financials (S6, 2024, p. 18). The reliability of data is crucial, as it reduces the need for additional checks and reconciliations. Tools or technologies that provide information more quickly and reliably are highly valued (S2, 2024, pp. 50,60,86) (S3, 2024, pp. 33-34) (S4, 2024, pp. 28,34). In this context, blockchain technology emerges as a promising solution to improve data quality and mitigate audit/accounting fraud/error risks (S1, 2024, pp. 44-46) (S2, 2024, pp. 48,50,86) (S3, 2024, pp. 12,54,58,61) (S5, 2024, pp. 23-26,44-45) (S6, 2024, pp. 19-20,42). The automation of certain due diligence processes could be streamlined with blockchain (S1, 2024, pp. 44-46) (S3, 2024, pp. 28,34,61) (S4, 2024, pp. 16,34), and it could also enhance transparency and security in data/document management (S3, 2024, pp. 10,30-32) (S5, 2024, pp. 44-45). Although blockchain technology is not yet widely used in FDD, it holds potential applications (S1, 2024, pp. 77-79) (S2, 2024, pp. 88-90) (S3, 2024, p. 44) (S4, 2024, pp. 16,60) (S5, 2024, pp. 40-42). Financial data and techniques are susceptible to alteration and manipulation (S1, 2024, p. 83) (S3, 2024, pp. 10,34,52-54) (S4, 2024, pp. 64-68) (S5, 2024, pp. 10,22-26, 69-74) (S6, 2024, pp. 20,42), and information asymmetry is a concern, with transparency being crucial in M&A transactions (S1, 2024, pp. 20,83) (S2, 2024, p. 97) (S3, 2024, pp. 10,24,56) (S5, 2024, pp. 84,92) (S6, 2024, p. 42).

In conclusion, the collective insights from various speakers underscore the hypothesis that FDD has significant room for improvement. The integration of blockchain technology could address

many of the current challenges by enhancing the actuality, reliability, and quality of data, reducing human error, and bolstering security and real-time actuality, thereby strengthening the overall integrity and efficiency of the FDD process.

H5: Blockchain Technology in Reducing Time and Cost. The hypothesis H5 posits that blockchain technology can significantly reduce the time and cost associated with due diligence in M&A transactions, thereby enhancing overall efficiency. This assertion is substantiated by a series of findings from various speakers who have identified key Challenges in the due diligence process that blockchain technology has the potential to address.

Firstly, the data gathering, and collection phase has been highlighted as particularly time-consuming by multiple speakers (S2, 2024, p. 14) (S3, 2024, pp. 12,52) (S4, 2024, p. 16) (S6, 2024, pp. 6,18,15-16). The quality of data provided is often compromised by human error, as noted by Speaker 5 (S5, 2024, p. 22), which can lead to further delays and increased costs. Speaker 3 suggests that automated processes could alleviate some of these issues (S3, 2024, pp. 30,34), pointing towards the potential for blockchain to streamline data collection and improve accuracy. Moreover, the subsequent phase of cleaning, reconciling, and reviewing data is a critical Challenge, as agreed upon by Speakers 1, 2, 3, 5, and 6. The susceptibility to data and document manipulation poses significant risks (S1, 2024)Pos. 32; (S2, 2024) Pos. 33-34; (S3, 2024) Pos. 10], which can be mitigated by blockchain's inherent characteristics of immutability and traceability. Transactions involving audited financial figures are deemed less complex and more reliable (S2, 2024, p. 8) (S4, 2024, p. 20), indicating that the assurance of data integrity provided by blockchain could simplify and expedite the due diligence process. Further, International M&A transactions, as discussed by Speakers 3 and 4, are fraught with complexity due to the need for additional accounting and tax reconciliation. Small and medium-sized enterprises (SMEs) present their own set of challenges, often related to data quality and limited resources in financial departments (S1, 2024, p. 18) (S4, 2024, pp. 16,20). The due diligence process in these cases is less structured and more labor-intensive (S2, 2024, p. 8), suggesting that blockchain could offer significant improvements in efficiency and structure. Virtual Data Rooms (VDRs) are central to data exchange but raise security concerns once documents are downloaded (S3, 2024, pp. 10,32). While professional VDRs like iDeals provide detailed information about data uploads and changes (S4, 2024, p. 24), the critical role of VDRs in storing all relevant documents for due diligence underscores the need for enhanced security measures that blockchain could provide. Real-life cases further illustrate the issues at hand. The use of hash codes for document verification (S1, 2024, p. 44) and the difficulty in tracking document access post-download from VDRs (S3, 2024, pp. 10,32,56,58,61) demonstrate the need for a more secure

and verifiable system. Discrepancies in due diligence findings and actual state post-acquisition (S4, 2024, pp. 57-58) and significant errors discovered incidentally during due diligence (S5, 2024, p. 22) highlight the potential for blockchain to provide a more reliable and accurate record of transactions. The validation of underlying data and instances of fraud (S6, 2024, p. 18) further emphasize the need for a system that ensures data integrity. Reliable data reduces the need for additional checks and reconciliations (S2, 2024, pp. 50,60,86), and tools that speed up data transfer and enhance reliability improve due diligence (S3, 2024, pp. 33-34) (S4, 2024, pp. 28,34). Blockchain's ability to improve data quality and verify document authenticity (S1, 2024, pp. 44-46) (S2, 2024, pp. 48,50,86) (S3, 2024, pp. 12,54,58,61) could be a game-changer in this regard. Blockchain's potential to streamline audit processes and mitigate fraud/error risks (S1, 2024, p. 32) (S2, 2024, p. 107) (S3, 2024, pp. 31-32,34,42-44) (S4, 2024, pp. 64-68) (S6, 2024, pp. 18-20,42) is particularly noteworthy. The automation of due diligence processes could be significantly enhanced by blockchain (S3, 2024, pp. 28,30,34,52-54,61) (S4, 2024, pp. 16,34), leading to a more efficient and cost-effective process. The technology's capacity to verify document alterations and clarify asset ownership and value (S3, 2024, pp. 10,30-32) could add another layer of security and transparency. Finally, blockchain's provision of a clear and auditable trail of document access (S3, 2024, pp. 10,30-32) (S5, 2024, pp. 44-45) addresses the critical need for accountability and traceability in the due diligence process.

In conclusion, the findings from various speakers provide compelling evidence that blockchain technology could address many of the inefficiencies currently plaguing the due diligence process in M&A transactions. By improving data quality, streamlining processes, and enhancing security and transparency, blockchain stands to significantly reduce the time and cost associated with due diligence, thereby supporting Hypothesis H5.

H6 Suitable Areas for Blockchain Applications. The findings from the analysis of Financial Due Diligence (FDD) Challenges and insights from various speakers provide a compelling argument for the suitability of blockchain applications in mergers and acquisitions (M&A). These findings support the hypothesis that blockchain technology could play a transformative role in enhancing the accuracy and reliability of data (H6a), streamlining legal and regulatory compliance processes (H6b), and providing a higher degree of transparency and trust among involved parties (H6c).

Starting with the sub-category "Data," which has been identified as a significant challenge in FDD, speakers such as S2 (S2, 2024, p. 14), S3 (S3, 2024, pp. 12,52), S4 (S4, 2024, p. 16), and S6 (S6, 2024, pp. 6,18,15-16) have highlighted the need for improved data collection and processing. This aligns with H6a, as blockchain's inherent characteristics could address these issues

by providing a more robust framework for data integrity and traceability. Further emphasizing the potential of blockchain, issues with data quality, such as outdated or constructed data, have been raised by speakers like S3 (S3, 2024, pp. 30,34) and S5 (S5, 2024, p. 22). They suggest that blockchain could enhance the accuracy and reliability of data, which is crucial during M&A activities. The ability of blockchain to provide an immutable ledger would ensure that data remains current and unaltered. The critical Challenges of cleaning, reconciling, and reviewing data/documents, as discussed by multiple speakers, indicate that blockchain could streamline these processes, thus reducing administrative burdens and leading to more efficient legal and regulatory compliance in M&A, which is directly relevant to H6b. Moreover, the susceptibility to data/document manipulation risks, as pointed out by speakers such as S1 (S1, 2024, p. 32) and S3 (S3, 2024, p. 10), underscores blockchain's potential to improve transparency and trust (H6c). The immutable nature of blockchain could deter such manipulations and foster a more transparent environment for all parties involved. The challenges with international M&A transactions, particularly the complexity of legal and regulatory compliance, have been noted by speakers like S3 and S4. They suggest that blockchain could play a role in automating transfer calculations, thereby streamlining these processes and aligning with H6b. Small and medium-sized enterprises (SMEs) face unique challenges in M&A transactions, such as data quality issues and understaffed financial departments. Speakers S1 (S1, 2024, p. 18) and S4 (S4, 2024, pp. 16,20) have indicated that blockchain could be particularly beneficial in these areas, supporting both H6a and H6b by providing a means to manage data more effectively and efficiently. The role of Virtual Data Rooms (VDRs) in M&A has been highlighted by speakers S3 (S3, 2024, pp. 10,32), S4 (S4, 2024, p. 24) and S6 (S6, 2024), who have raised concerns over document security and access post-download. Blockchain could enhance the security and transparency of these documents, which is in line with H6c. The use of hash codes for document verification, as mentioned by S1 (S1, 2024, p. 44), points to blockchain's potential to ensure data integrity, supporting H6a. Blockchain could provide a similar level of security, ensuring the correctness of documents with near certainty. The need for a system to trace document activities in VDRs, to prevent unauthorized distribution, as discussed by S3 (S3, 2024, pp. 10,32,56,58,61), supports the potential for blockchain to provide transparency and trust, relevant to H6c. Blockchain's ability to create an auditable trail of document access would be invaluable in maintaining the integrity of sensitive information. The importance of reliable data in due diligence and the value of tools that enhance timing and reliability, as acknowledged by speakers S2 (S2, 2024, pp. 50,60,86), S3 (S3, 2024, pp. 33-34), and S4 (S4, 2024, pp. 28,34), suggest blockchain's applicability, supporting both H6a and H6b. Blockchain could provide a more efficient and reliable means of data verification, which is crucial in due diligence. The

potential for blockchain to improve data quality and ensure data completeness and correctness is directly related to H6a, as indicated by a range of speakers including S1 (S1, 2024, pp. 44-46), S2 (S2, 2024, pp. 48,50,86), S3 (S3, 2024, pp. 12,54,58,61), S4 (S4, 2024, pp. 27,28,34,68), S5 (S5, 2024, pp. 23-26,44-45), and S6 (S6, 2024, pp. 27-28). This improvement in data quality would directly impact the output of FDD reports. The mitigation of audit/accounting fraud/error risks through blockchain technology is a potential advantage that could reduce administrative burdens, relevant to H6b. Speakers across the spectrum, including S1 (S1, 2024, p. 32), S2 (S2, 2024, p. 107), S3 (S3, 2024, pp. 30,31-32,34,42-44), S4 (S4, 2024, pp. 64-68), S5 (S5, 2024, pp. 23-24,93-94), and S6 (S6, 2024, pp. 18-20,42), have discussed how blockchain could be beneficial in auditing and accounting, sharpening the understanding of how blockchain technology can impact FDD. The automation of due diligence processes, such as legal compliance and data validation, through blockchain technology supports H6b, as discussed by S3 (S3, 2024, pp. 28,30,34,52-54,61) and S4 (S4, 2024, pp. 16,34). Blockchain could significantly enhance the due diligence process by ensuring the validity of all data involved. The potential for blockchain to provide guarantees in the execution of Share Purchase Agreements (SPAs) and automate share and cash exchanges is relevant to H6b, as noted by S4 (S4, 2024, pp. 16,34). Blockchain technology could secure the process, ensuring that the exchange of shares and cash is conducted as agreed upon. Lastly, the acknowledgment of the risk of document tampering during financial due diligence supports the potential for blockchain to enhance transparency and trust, aligning with H6c. Speakers S1 (S1, 2024, p. 83), S3 (S3, 2024, pp. 10,34,52-54), S4 (S4, 2024, pp. 64-68), S5 (S5, 2024, pp. 10,22-26,60-74), and S6 (S6, 2024, pp. 20,42) have all recognized this risk, suggesting that blockchain could provide a solution. Lastly, the discussion of information asymmetry, as mentioned by speakers S1 (S1, 2024, pp. 20,83), S3 (S3, 2024, pp. 10,24,56) S5 (S5, 2024, pp. 84,92) S6 (S6, 2024, p. 42), and S2 (S2, 2024, p. 97), suggests blockchain's role in improving transparency, supporting H6c. The ability of blockchain to provide a transparent and verifiable record of transactions could significantly reduce information asymmetry in M&A deals.

These findings collectively support the hypothesis that blockchain technology is well-suited for application in M&A due diligence activities, particularly in enhancing data accuracy and reliability, streamlining legal and regulatory compliance processes, and providing a higher degree of transparency and trust among involved parties.

15. Conclusion

The culmination of this research has provided a thorough examination of the financial due diligence (FDD) process within mergers and acquisitions (M&A) and has critically assessed the potential of blockchain technology to benefit this domain. Our investigation was anchored by three pivotal research questions. Here, we encapsulate the essence of our findings, integrating two new insights that emerged prominently during our exploration.

Research Question 1: Identifying Challenges in Traditional FDD. Our investigation into the traditional FDD process has uncovered several Challenges, chief among them being the protracted and costly nature of data collection and verification, particularly in SMEs and cases involving non-audited financial figures. The empirical evidence corroborates the hypothesis that an extended pre-closure phase, laden with inefficiencies, is directly proportional to increased transaction costs, thereby impinging on the cost efficiency of M&A transactions.

New Insight 1: SMEs and Non-Audited Financial Figures. A novel insight from our research is the disproportionate impact of FDD challenges on SMEs and transactions involving non-audited financial figures. These scenarios often result in a more demanding due diligence process, stretching resources thin and escalating costs. The lack of audited financials introduces a layer of complexity, necessitating a more meticulous and time-intensive review to ensure the accuracy and integrity of financial data.

Research Question 2: Blockchain's Role in Alleviating FDD Issues. Blockchain technology emerges as a beacon of hope, with the potential to mitigate many of the inefficiencies plaguing the FDD process. Its immutable and traceable nature could revolutionize data collection and verification, curtailing the time and costs associated with due diligence. The findings suggest that blockchain could be particularly instrumental in enhancing the efficiency of due diligence, especially in transactions with audited financial figures.

New Insight 2: Blockchain's Potential in Auditing and Accounting. A second new insight is the recognition of blockchain's profound implications for auditing and accounting within the M&A sphere. While M&A professionals typically do not conduct audits themselves, the application of blockchain technology in these areas aligns with examples from earlier chapters and could significantly benefit their work. This technology could provide a more robust framework for ensuring the accuracy and veracity of financial statements, which is paramount in the due diligence process.

Research Question 3: Areas Most Suitable for Blockchain Technology. The suitability of blockchain technology in FDD is most evident in its ability to enhance data accuracy and reliability,

streamline legal and regulatory compliance, and bolster transparency and trust. Areas most ripe for blockchain's influence include:

- **Data Management:** Elevating the efficiency and integrity of data collection and maintenance, particularly in SMEs and cases with non-audited financials.
- **Legal and Regulatory Compliance:** Facilitating complex processes and automating compliance tasks, especially in cross-border M&A transactions.
- **Transparency and Trust:** Establishing a transparent and immutable record of transactions to diminish information asymmetry, document tampering risks and potential consequences thereof.

In conclusion, this research has affirmed the transformative potential of blockchain technology in FDD within M&A transactions. By addressing the Challenges of traditional FDD processes, blockchain has the potential to not only streamline due diligence but also to instill a higher degree of trust and efficiency in M&A activities. The integration of blockchain technology, particularly in the realms of auditing and accounting, could lead to a paradigm shift in how due diligence is conducted, ultimately benefiting M&A professionals and the integrity of financial transactions. The insights gleaned from this research present a compelling case for embracing blockchain technology in FDD, with the expectation that its adoption will lead to more streamlined, cost-effective, and secure M&A transactions.

14.1 Limitations

This chapter outlines the limitations encountered during the research process of this MBA Master's thesis. The study aimed to explore the intersection of blockchain technology with M&A financial due diligence, a nascent area that presents several challenges for comprehensive academic inquiry. The limitations are categorized as follows. *Scarcity of Qualified Interview Candidates:* A limitation was the low number of qualified interview candidates available. The dual expertise required—proficiency in both M&A financial due diligence and blockchain technology—significantly narrowed the field of potential interviewees. The technology's nascent stage means that few professionals possess deep knowledge in both areas. This scarcity of qualified individuals might have impacted the depth and diversity of perspectives gathered in the study, potentially affecting the richness of the data and the conclusions drawn from it. This limitation is interlinked with the subsequent limitation. *Small Sample Size.* The research faced a constraint in the form of a small interview sample size. Due to the innovative nature of the subject matter—blockchain technology in the context of M&A financial due diligence—the pool of

potential participants was inherently limited. The specificity required for the study meant that only a select group of professionals could provide the insights necessary for a robust analysis. Consequently, the findings of this research may not be generalizable to a broader population or different contexts. This should be taken into consideration when interpreting the findings. *Limited Academic Literature.* The research was also constrained by the limited availability of academic literature on the topic. Both primary and secondary sources were scarce, as the integration of blockchain into M&A financial due diligence is a relatively unexplored area in academic circles. This lack of scholarly resources posed challenges in framing the research within an established academic context and in benchmarking the findings against existing studies. *Exploratory Nature of the Study.* Finally, the exploratory nature of the analysis itself serves as a limitation. Given that the application of blockchain technology in M&A financial due diligence is not widely practiced, there is little empirical data to draw upon. The study is, therefore, largely explorative, aiming to forecast potential implications rather than document existing practices. The conclusions reached should be viewed as preliminary insights that pave the way for future research rather than definitive statements on the subject. In summary, the limitations of this study are inherent to the pioneering aspect of the research topic. While they pose challenges to the conclusiveness of the research, they also highlight the need for further investigation as the technology and its applications in the financial sector continue to evolve. Future studies with larger sample sizes, a greater number of qualified experts, and a richer academic foundation will be essential to advance understanding in this field.

14.2 White Gaps

In the pursuit of a comprehensive understanding of Financial Due Diligence (FDD) processes within the context of mergers and acquisitions, this chapter delves into the 'white gaps'—areas where data is scarce or non-existent—of the research conducted for this MBA thesis. These gaps represent the limitations and challenges faced in acquiring a full picture of the FDD landscape, and they are critical in understanding the boundaries of our current knowledge and the potential avenues for future research.

Insider Knowledge on FDD Procedures. One of the more significant white gaps identified in this research is the lack of insider knowledge regarding the exact tasks and critical tasks involved in detailed FDD procedures. FDD is a complex process that requires a deep dive into the financial health of the target company. While the general steps of FDD are well-documented, the nuanced, company-specific practices—often considered trade secrets—are less

accessible. This insider knowledge is crucial for understanding the intricacies of FDD and for developing a more granular approach to the due diligence process.

Technological Systems and Digital Affinity. Another area where information is notably lacking pertains to the prevalent technological systems and standards used in FDD, as well as the digital affinity of the parties involved. The degree to which digital tools are integrated into the FDD process can significantly affect its efficiency and accuracy. However, detailed information on the specific technologies employed, their adoption rates, and the digital proficiency of the due diligence teams remains elusive and could vary greatly. This gap hinders our ability to assess the impact of technology on the FDD process and to identify opportunities for digital transformation.

Quantifiable data: Costs and Timeframes. The research also encounters a white gap in the form of in-depth information regarding the exact costs and timeframes of FDD processes, excluding overtime hours, which are typical for the sector. Costs and timeframes are sensitive information that companies are often unwilling to disclose. This lack of transparency makes it challenging to establish benchmarks or to conduct comparative quantitative analyses across different FDD engagements. It also obscures the true resource allocation and financial implications of due diligence activities.

Potential Underreporting of Inadequate or Faulty FDD. Lastly, there is a general impression that cases of inadequate or faulty FDD are underreported. This is understandable, given that such information is sensitive and can damage the reputation of the firms involved. The reticence to share negative outcomes contributes to a skewed perception that FDD processes are mostly successful. This reporting bias presents a significant white gap, as it prevents a balanced understanding of the risks and limitations inherent in FDD practices.

The Absence of Hero Use Cases. An additional white gap in the current body of research is the absence of 'hero use cases'—instances where innovative or untested methods have been applied to the FDD process to potentially enhance its effectiveness or efficiency. In other words, there is a notable lack of documented attempts to break new ground in FDD practices. This is not to say that such innovation is infeasible; on the contrary, from a technological standpoint, there are numerous possibilities for advancement and improvement in the realm of FDD. However, the conservative nature of the industry, coupled with the high stakes involved in mergers and acquisitions, may deter firms from venturing into uncharted territory without precedent. The feasibility of these innovations remains a theoretical discussion until such hero use cases are

realized, documented, and analyzed, leaving a gap in empirical evidence and practical validation of new FDD methodologies.

The white gaps identified in this research underscore the need for greater transparency and information sharing within the industry. They also highlight the potential for future research to focus on these underexplored areas. By bridging these gaps, we can gain a more accurate and holistic view of the FDD process, ultimately leading to more informed decision-making and improved outcomes in mergers and acquisitions. As this thesis progresses, it will attempt to shed light on these white gaps, while acknowledging that some areas may remain shrouded due to the confidential nature of the FDD process.

16. Acknowledgements

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18. Tables

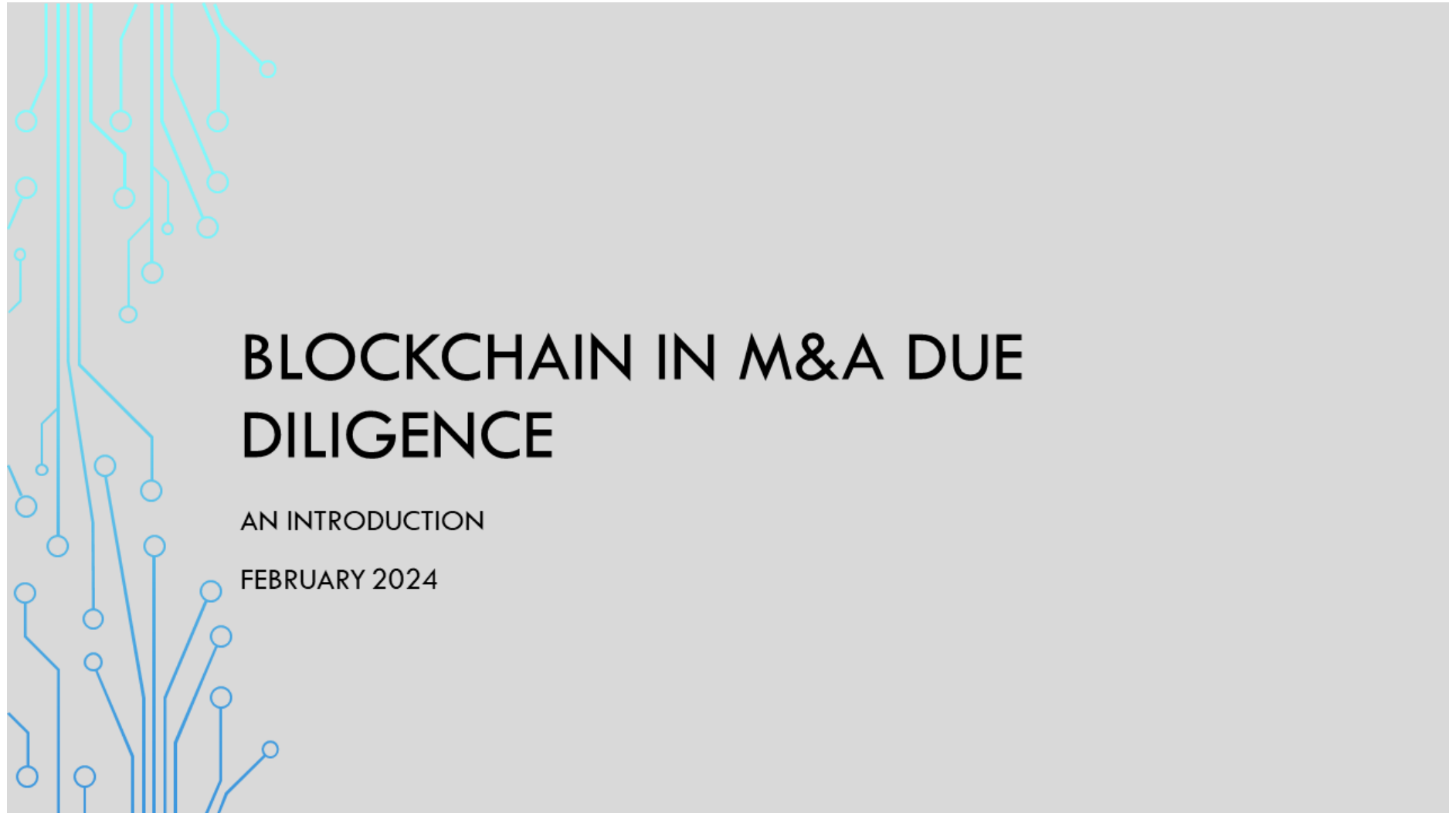
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20. Appendix

Appendix A: Expert Interview Info-PDF



PROLIFIC CASES OF MALPRACTISING DUE DILIGENCE RESULTED IN SIGNIFICANT FINANCIAL DAMAGES

AOL & **TimeWarner**
(1999)

What happened:

- The smaller but overvalued AOL merges with TimeWarner to create a new media conglomerate during the height of the internet dot-com bubble.

Issue:

- Rushed due diligence overall
- Failure to recognize accounting fraud

Result:

- SEC fines for fraudulent accounting
- \$99bn in goodwill impairment write-offs
- AOL spun off in 2009 worth a fraction of its ATH market cap

BANK OF AMERICA & **Countrywide HOME LOANS**
(2008)

What happened:

- During the housing crisis Bank of America bought Countrywide, a mortgage and loans servicer as part of their „growth through M&A“ strategy.

Issue:

- Bad financial due diligence led to acquiring a portfolio distressed and fraudulent loans.

Result:

- SEC fines for fraudulent accounting
- \$99bn in goodwill impairment write-offs
- AOL spun off in 2009 worth a fraction of its ATH market cap

hp & **Autonomy**
(2011)

What happened:


- HP acquired Autonomy to move away from hardware products into the software market. A year later declining revenues trigger internal investigations.

Issue:

- Flawed financial due diligence fails to identify fraudulent accounting methods on Autonomy's side.

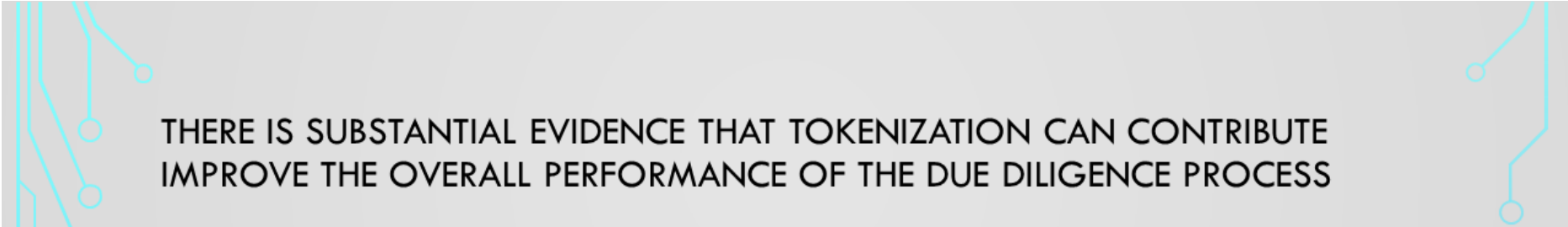
Result:

- \$8.8bn impairment charge
- Multiple SEC fines



DERIVED FROM RESEARCH & PAST OBSERVATIONS THE FOLLOWING CORE ASSUMPTIONS ARE TO BE VALIDATED

1. M&A transactions are notoriously lengthy & somewhat ineffective.
 2. Due diligence is one of the most time-consuming & therefore costly phases of the whole process.
 3. Especially bad, rushed or flawed financial due diligence can lead to bad (post-)deal performance.
 4. Institutions have recognized blockchain technology's potential & start implementing use cases to address known inefficiencies/deficiencies in financial due diligence/audit.
(f.e. regarding: time, cost, missing, unaccessible or invalid information)
 5. In traditional accounting/auditing data and records can be tampered with, which in turn enables accounting fraud.
 6. Information asymmetry and lacking transparency can impact M&A deals negatively.
- 



THERE IS SUBSTANTIAL EVIDENCE THAT TOKENIZATION CAN CONTRIBUTE
IMPROVE THE OVERALL PERFORMANCE OF THE DUE DILIGENCE PROCESS

Tokenization

is the process by which an asset, tangible or intangible, or information is replaced by a (digital) token that translates the asset's properties into digital value and can include information about ownership, rights and obligations in an objective and trustworthy manner by default.

BLOCKCHAIN TOKENIZATION CAN ENHANCE THESE 4 KEY ASPECTS OF M&A DUE DILIGENCE

Security

- Immutable network
- Eases compliance for network participants
- Enables validated/verified identities, rights & records

Data Quality

- Improved data originality, validity & actuality due to on-chain operations & verifications
- Real-time analytics

Efficiency

- Allows for automation (via smart contracts)
- Process-/costefficiency enhancements
- Standardized communication & data exchange

Accessibility

- Transparency improvements
- Eases access to data/information for individuals & the public
- (Fractional ownership)

APPLIED BLOCKCHAIN-TOKENIZATION USE CASE: BRØK – SHAREHOLDER MANAGEMENT VIA BLOCKCHAIN

Description

- Platform for shareholder management of SMEs
- Developed by the Norwegian government
- Runs on the public Ethereum blockchain
- Follows the ERC1400 security token standard



Capabilities

- Manage shareholder information
- GDPR-related deletion of personal data
- Recording share ownership exchanges
- Recording changes in total shares

Expected benefits

- Improved data actuality
- Reduced risk of cap table manipulation & fraud in general
- Cost & time efficiency enhancements for handling share exchanges/transfers

EXAMPLARY QUESTIONS

1. In what ways do you believe blockchain technology can impact the duration, expenses and overall efficiency typically associated with the due diligence phase in M&A transactions/transactions in general?
2. How does the tokenization of assets contribute to overall liquidity as well as availability and accessibility of investment opportunities (in the M&A space), and what implications does this have in terms of investor base/pool?
3. In your view, how might the application of blockchain in shareholder management operations impact the accuracy, actuality and reliability of shareholder management (throughout the course of M&A activities)? (e.g., Brøk)
4. In your experience, how could blockchain platforms potentially streamline legal and regulatory compliance processes (in M&A), and what administrative burdens do you foresee being reduced as a result? Any real examples?
5. In what ways do you believe the incorporation of blockchain technology into M&A transactions could affect the levels of transparency and trust between the involved parties and what are the key factors that contribute to this outcome?
6. In your view, how might the adoption of blockchain technology for a host of business operations by EY influence the broader market, particularly smaller firms, in terms of adopting blockchain technology for business operations?
7. Could you discuss your view on the state of scalability and interoperability of (EVM) blockchain platforms. Would you say they are equipped to handle the complexities of cross-border and cross-industry M&A challenges? f.e., in terms of data reconciliation, financing, taxes,
8. With the current trend of partial business and M&A process digitization, how do you see blockchain technology role in this evolution, and what distinct features or progress in major use cases do you believe are driving this change, if any?

NEXT STEPS



1. Choose a date for an interview (as soon as possible) [by clicking here](#).



2. Participate in an interview (ca. 60 minutes; via MS Teams).



3. As a participant, you will be provided with a copy of my Master's thesis and a summary of major findings.

Appendix B: Transcript Interview No. 1 (S1, 05.01.2024)

1	<p>S1: Yes. My name is [Name]. I am a senior manager in the [German City] Deals office at [Big 4 Company] and I started off my career at other [Big 4 Company] and also worked for [major French Bank] both in M&A and predominantly these days I am doing financial support in terms in context of transactions especially financial due diligence and vendor assistance. So, what about some details around me? so we can start off, I guess.</p>
2	<p>INT.: Yes. Yes. Perfect. that is actually exactly what I envisioned with having you here. so just to refresh a bit the memory my master's thesis is exploring how the utilization of blockchain technology especially tokenization may alleviate some of the issues that may or may not be prevalent in M&A transactions with special regards to due diligence and even more focused on financial due diligence as this is somewhat the core of my work. So, I brought three main questions, and I allocated roughly ten minutes. If we are quicker than the better. maybe fitting to your background starting with the first one. so, I had troubles finding some type of a more generic framework for financial due diligence obviously depending on deal size and type of deal and so on there will be variations. But my first question would be if you could please comment out a little. yes, a more generic financial due diligence process so as to I can understand how it works for now and how the process is and what the steps are that you usually take. So yes, if you can comment on that maybe for the blueprint.</p>
3	<p>S1: Blueprints FDD [Financial Due Diligence] project would be there is an M&A process running an auction normally where there is a sell side advisor inviting other parties to a process. And as a bidder reaches a certain stage, he gets his advisors involved for the second phase of the M&A project after handing in the non-binding offer. And then you get access to the as the VDR advisor with your team you drop an info request list which lines out the parts of your required information in line with your scope of work. And that scope of work normally covers the elements that have to be addressed in the share purchase agreement especially the net the net debt part meaning also the part of the equity bridge that includes balance sheet liabilities off balance sheet liabilities all that kind of stuff. You need to produce</p>

	<p>a clear net working capital definition and make adjustments to net working capital to produce a normalized number especially if you have an under or over funding towards closing. and the third aspect would be then the normalized EBITDA where you make your quality of earnings adjustments in order to arrive at the normalized level. you of course always have certain situations where you look at carve out financials or you look at GAAP to GAAP reconciliation from German GAAP to IFRS or that kind of stuff. But that is more work on the sell side where they build up the numbers before, they start the process. So yes, but that will be the normal course of action. Then you provide your client with the with the analysis and then it goes obviously back and forth based on your assessment and you eventually yes hopefully reach the final stage once you had the final or binding offer handed in based on your assessment as the client. And when it comes then to what signing you get your FDD expertise back in and support drafting the SPA or making the markup on the SPA. Yes, those are then the follow up steps which are more senior compared to the normal FDD approach. And along this FDD approach we as [Big Four Company] have obviously our lots of tools running and try to get more optimized and use GenAI for instance and use our global capacities to be more efficient.</p>
4	<p>INT.: So. Okay so thanks for that. So, if I understood correctly is more or less a three-phase process. Right. So, we start with the excuse me you start. With the requirements list and work your way from there going to the equity going to a normalized EBITDA. And then depending on tax authority or accounting measures I guess depending on that you take further action.</p>
5	<p>S1: I mean if you really look at it in a very simple way it is one phase where the FDD comes into place. And that is when you look at the M&A project Terme starting on the sale side they do their preparations with the client with the sellers. And at a certain stage they approach certain bidders. And if the bidder is invited to the to the process if he is happy with the NDA and also with the process letter etc. etc. and he hands in his non-binding offer and that is accepted he will normally get us involved to take a look at the financials. and. Our work is finished when we hand in the FDD report. That is the original part of the process. And our scope of work that we look at is producing a normalized EBITDA. So, if you take if you think about valuation you need to have when you do a multiple valuation for instance you</p>

	<p>need to have an EBITDA and that has to be on a recurring basis. So, it has to be the accounting or reported EBITDA. And then you have some adjustments that management made because they think in Covid they had extra costs, or I do not know certain stuff. Then we produce our adjustments where we partly make adjustments to these assessments also produce our own view. And then you have to have your enterprise value calculations but then you need to make your adjustments. And those are from coming from the enterprise value to the purchase price or the or the binding offer. And that includes a view on adjustments to or net debt. Yes. You have some liabilities or not. The entire cash is distributable. It is. For instance, trapped cash is included on. And then you have to take a look at your net working capital. Because when you have a normalized level of net working capital which is I do not know one hundred and at closing you only have 99 in your books you would have an adjustment of minus one from the purchase from the equity value from the enterprise value to the equity value. So, you also need to look at working capital. So normally it is these three pieces okay.</p>
6	<p>S1: quality of earnings which is EBITA. You have your network capital analysis, and you have your net debt view. So, these three are very important because they are included in the binding offer and also in the SPA.</p>
7	<p>INT.: All right all right. That clarified a lot. Okay. I think for the generic if the process that is. Fine. I have two follow up questions. Maybe first can you give a rough estimate on an average? I mean this is depending on deal size and all but maybe from your experience from your past projects and average financial due diligence time.</p>
8	<p>S1: time frame. I mean you normally see 3 to 5 weeks where we do our really our work. and then the entire DD phase runs a little longer because then you have some follow up time for management, but I would say 3 to 5 weeks on our end.</p>

9	<p>INT.: Three to five weeks. And because there are several types of due diligence would you say that financial due diligence is ranking rather amongst the shorter due diligence or the longer ones?</p>
10	<p>S1: It is the I would say most important. Yes.</p>
11	<p>INT.: That was I think we can all agree on this.</p>
12	<p>S1: It is the one that the client really wants to see compared to let us say it or tax. I would say financial and commercial are the most important ones. But the depends once again on your business if you look at infrastructure if you look at some heavy, I do not know really capital-intensive business infrastructure. You also have technical DD which is I would say then or operational DD which is then even more important and consumes less time or is expected to consume less time because it is more urgent.</p>
13	<p>INT.: Okay. But due to the let us say importance and nitty gritty ness of the financial due diligence it makes it long. I guess this is how I understood.</p>
14	<p>S1: It depends. It depends really. I mean it is a kind of it is a service when you have a client who's really well educated like the private equity fund that would normally, they would give you guidance what they need, and you do not have to do everything. And then you hopefully get well-prepared documents on the sell-side. So, it depends really on the on the size of the project. I would say if you had a well-organized site with a good investment bank and another big four company for instance preparing the sell side documentation you, I</p>

	<p>do not know it can take only 2 to 3 weeks. Yes, you can do if there is a vendor DD running. That is a financial due diligence prepared by the sellers. You would do a top up deed on the buyer side which incorporates less time. Yes. So, it really depends on the quality of financial information. If you have these really big deals that is all well prepared. And if you look at mid-cap deals where we are really active in it gives you sometimes a difficult time.</p>
15	<p>INT.: Yes. I heard Okay. Well, this leads very well to the second question so maybe let us just jump straight into this one so now that we looked a bit at the generic process my question is because it is hard to find with public information at least that was my experience. What are the pain points. So, what are the challenges? What are the most time? Also, the most time-consuming tasks you have to perform within your financial due diligence. Of course.</p>
16	<p>S1: Normally it is. And if you do it really properly this deriving the normalized income level. Okay. It is I mean what you would normally do or have to do is. And that goes well beyond the normal FDD scope is that you need to derive an EBITDA which really tries to get to the core of the of the income power. Yes. So, what you would normally say is that the quality of financials it has to be looked at other financials correct in first place. And that is normally not the turf of you know we expect that the persons at that company enter the financials correctly you know they get a receipt and enter it on their SAP ERP system. That is not what we look. But we look rather is the quality of financial information. is it giving you the true and fair view that you can do a valuation? And if you do really properly you do not only I do not know eliminate the extra costs of the last Christmas party but rather look at where would that business be today if COVID hadn't happened you know and those are really the nitty gritty parts and where you need to pull up or come up with the few times p meaning a quantity times price grid where you can really make assessment. Hey, they went down in that regard and that pricing is just because they give a one-off discount. And if you really go into that detail and do not only stop at the high-level view what is normally the case because you only have 3 to 5 weeks as I said that really gets into really nitty gritty parts and can also and as I said, that goes beyond the normal scope of FDD. That can also be the strategy consultants turf you know doing the CD. But normally where we</p>

	<p>see difficulties is deriving like a gross profit which is really thorough which is going to be there also going forward looking at quantity times price grids. Yes. In terms of revenues and costs. But then also what is s g and a that is personal expenses for instance admin in admin functions where you look at hey what kind of cost do I will I have going forward? Do I need do I need a new CEO who earns less or more? And really deriving that number is very crucial. That EBITDA figure I would say for what is also very difficult normally is deriving the net debt because you can take obviously what you see on balance and make distinguishment you can also make a revaluation of that. Yes. If it is debt which has been drawn five years ago. interest rates change. So, it will not be in line with what you would see today when you refinance yourself. Sure. So that would also be some kind of aspect but also these off-balance sheet items. Right. If you have a CapEx backlog for instance and as a company, you have a business plan with a really great EBITDA going forward. But to achieve that EBITDA you would first of all need to invest like a billion. Yes. And if you do not see that in the business plan you obviously need to deduct that from the enterprise value. And or the present value of these investments. So, you have the full package. So also, apart from the quality of earnings part looking at EBITDA the net debt schedule from my experience is one of the most crucial parts.</p>
17	<p>INT.: Okay. So, I have two questions now. first so what I understood is it you are not too much concerned about the validity of data but more about what value it has to you in terms of analysis. Is that correct? Yes.</p>
18	<p>S1: Normally the companies that we work with are not that tiny. They have they have an accounting department. And but sometimes we also get for instance startup businesses. Yes. That have a really high enterprise value compared to what you see in the books. Right. These growth companies. Yes. Yes. Where the financials are sometimes not that great. They have external advisors for the most part which is helpful but normally they lack this expertise because they focus on other areas. Yes. So, if you have a feeling on a deal that financials are. Yes. Not that. Quite all right. obviously, we also write that down our report in the basic preparation section.</p>

19	<p>INT.: Sure. And then and so we already spoke about data quality is that is not necessarily in your scope because you asse that data is audited and therefore, correct? Is data accessible generally or are there any issues with accessibility of data or how does the I mean I know there is VDRs and usually that is being used in M&A deals but is there any accessibility issues that you have encountered in the past regarding data or information more generally?</p>
20	<p>S1: I mean data is. are normally structured in the trial balance format which is in German "SuSa" ("Summen- & Saldenlisten"). And you get these from I do not know Datev or SAP downloads and those are normally prepared or provided to us. So that kind of data is not the real issue. And we also have tools on today which allow us to get those structured data and populate them in our system kind of easily. And also applying blueprint analysis let us say you have you get data and simply spoken. You take it the system runs over it and gives you a really structured flat file that incorporates the date the number the account name and etc. the periods everything you need. And then you can select from blueprints and say hey I want to do the network capital analysis. And that presents to you the net working capital analysis. But the data that we get in the first step we are getting to... We get the data to answer your question normally sometimes we need to make follow up questions. "Hey, we need to have it on a monthly basis.", "Hey, we need to have it for another period" etc. etc. but that is for FDD normally not the issue. If you go down the line and say hey, we want to take a more thorough look at data for the gross profit. that can be a sensible task especially if you work with strategic client who has a who's working as a competitor in the market. Yes. And the sellers are really reluctant to provide you with this data so. Yes, but I would not say that this is the normal case. You normally get a good set of data because the sellers also want to have a quick process and want you as a buyer to be involved. But yes, as always it depends.</p>
21	<p>INT.: Okay. Yes. Yes. This is the typical it depends. okay. One last question. Maybe before we move to the next topic are there any tasks or any, I mean we spoke about pain points and challenges. Are there any tasks that seem excruciatingly inefficient or too analog or is</p>

	<p>there anything where you say this could yes this could be for instance digitized or automated in some more efficient way that you can think of maybe of report writing?</p>
22	<p>S1: I mean I think FDD to be honest that will not be as we do it today, I have to say will not be the product in the next years. So, the idea that we follow as a company is that at least it is the idea you can have is, that you provide a tool some kind of tool access to the VDR, and the tool produces the FDD report for you. Yes. And text will be there, and the analysis will be in place on a very unstructured data also. So. Okay. That is where we will end up eventually, but we will always be relevant to say hey the data is correct.</p>
23	<p>INT.: Yes. No for sure.</p>
24	<p>S1: To build trust and that is that is where we are still going to be in place but that is at least what I strive for that we move towards that direction.</p>
25	<p>INT.: Okay. Yes. Just to clarify I am not trying in any way to say FDD needs to go, and all the professionals can be automated.</p>
26	<p>S1: If you if you do not say it others will say it. You really need to think about the whole practice per se. And we talk about it all day long. How are we going to change business? And it is very interesting. Right. that it is really, it is not only a threat but a big chance for us as a company.</p>

27	<p>INT.: Okay so. Because the. what you just spoke about is more GenAI I would say.</p>
28	<p>S1: Sure. Yes.</p>
29	<p>INT.: okay. So, I am just trying to figure out yes.</p>
30	<p>S1: That is GenAI.</p>
31	<p>INT.: Yes. Okay so if you do not have any other pain points or inefficiencies I would move to the most sensible tasks. So for me just to clarify sensible task would be well like the three ones of the generic process you described that are essential to the outcome of the deal basically and that have that are somehow susceptible for fraud for example I do not know if somebody sends you the reports and they are not audited that would be for me a sensible task because it gives potential for fraud. But at the same time, it is really important for the deal outcome. So are there any task specific steps within FDD where you say this is this is like high level important even higher level important than others because it can massively influence the outcome.</p>
32	<p>S1: It is I have not had the situation where I came across fraud what I normally see is that people lack expertise. Okay. one example from my experience we supported a company to acquire another company. And the target company it was a software as a service company. where you in this special to those companies? You have a model where you generate income on a steady base or revenues. but you can only record these revenues once you rendered the service. Yes, just think about Spotify. They get €10 a month or so and they provide you</p>

with a service. Right. And they are only maybe you can pay up front €100 but these are 120 for a year. And you can only show €10 a month because it is distributed. And that company had shown the 120 in the very first month. You know they received the cash and said it is revenues. And then when the buyer the first time integrated consolidated the financials of the new target company, they found out hey where are these revenues gone? We would expect them to come in the next 12 months. No, they have been recorded already before the deal was closed and they had a big hole in the first month which they then had to recover from. Yes. And those are rather the tasks that we look at is accounting. we have our pain points now especially in the context of international transactions. That is revenue recognition and that is also leasing accounting. And those two are not really harmonized across territories and also done incorrectly. One further topic is the valuation of inventories. So, if you what companies normally do. So, per German GAAP when you buy inventory if you, I do not know you are a car producer and you need to have some seats for your car and you have not had you have not sold any cars so far. You do not you do not produce them, but you only have seats on your balance sheet, and you take cash. It is active in Germany. You buy something cash and it is there in your balance in the working capital. and what companies then sometimes do they already record expenses as material expenses in the PNL which is incorrect. You can also only show them once you take those seeds into production and build a card. And that is also some really lack of expertise. But I would not say that is fraud. It becomes fraud when a company does this. no. Willingly. Yes. To. Yes. Okay. And I do not I cannot say if the company when we asked them hey what are you doing there in your balance sheet, they always say oh sorry that was a mistake. Yes. If they do it intentionally it becomes sometimes you with your common sense. Why would they record extra expenses for car seats in the PNL? maybe for tax reasons. Yes. You have a too low tax income then the tax authority. But that is not our turf. I mean yes.

33

INT.: Sure. Yes.

34

S1: But I have not come across these fraud issues, but I know where to put my finger into the wound. How do you say in German. Okay.

35	<p>INT.: Yes, but maybe, I need I need to rephrase a bit. I mean fraud would be the worst case. I mean we are not assuming that everybody is doing Wirecard things or something like that but also that deliberate fraud let us call it or maybe accidents or just bad effects in under. I mean yes bottom line.</p>
36	<p>S1: We get information from the lawyers that say hey we read the legal investigations or disputes, and they say they have not declared something correctly for taxes or I do not know that kind of stuff. And then you really get interested and take a look at these accounts. And if you come and say well that is that has been fraud or that has been done intentionally you really need to take another look at it. Sure. Okay.</p>
37	<p>INT.: Yes, that makes sense. All right. So yes, so much for sensible tasks. okay. So, for the end or the last question is more of an open part. So, I do not know did you get a chance to look into the PDF?</p>
38	<p>S1: Into that file. Yes.</p>
39	<p>INT.: Okay. So, you know I am roughly the background story and you are familiar with the concept of blockchain or tokenization.</p>
40	<p>S1: Yes. At least I once read wrote a not a paper but a seminar in university.</p>

41	<p>INT.: Oh yes. Okay great.</p>
42	<p>S1: But that is kind of. A couple of years ago.</p>
43	<p>INT.: Yes. I mean I think the high-level understanding will be whether enough especially because for this interview I am looking to your FDD expertise which is even greater if you are on top of that have blockchain knowledge. So yes, basically as I said in the beginning of the interview, I am trying to explore how the utilization of blockchain technology and especially tokenization could improve some FDD aspects or inefficiencies whatever it may be. That is what we are trying to find out. And after hearing or having heard what you have said I would just like to ask you to comment a bit on what you think about the whole matter whether you think there is some potential if yes where or if not why? maybe with regard to the aspects of security data quality efficiency and accessibility mainly if you have anything in that regard and maybe also the prevention of, I had three case studies at the beginning of the slides. I think AOL/Time Warner, Bank of America and Countrywide and HP and Autonomy, all deals that did not go as well. yes. I mean so the.</p>
44	<p>S1: I cannot comment on these deals. It is interesting to see what kind of mess they made but what I find interesting, and I had the question earlier before I had to look at your docent here is I mean. Going back a couple of years ago I had a transaction with I do not know how many papers that had to be printed. And there were two parties aligning on annexes to the contract of really a thousand pages or so and or two thousand pages and there were two hundred docents or so and we did not know. Is that always the last negotiated version of the docent? is that the final? Is that the final docent? And what we did we created these hashes. I do not know based on which software was not blockchain, but we created a hash code that that we aligned on earlier. And then before we printed each document, we open the document, or we took the docent uploaded it to get the hash. And it was always the same. So, both sides were happy. It is the docent that</p>

	has to be printed and signed okay. Yes. And obviously this is something where blockchain comes into play where you can. As I understand the technology you can have a 100% or 99.9% security that it that it is the correct docent.
45	INT.: Exactly.
46	S1: And that would obviously be a use case very important to apply. And one further aspect that comes into my mind is giving all this AI stuff and being able to easily create new docents and pictures and stuff that you need to be sure. Is that an original docent? I mean this the dealing of... what is the name again? Where you can buy like pixels of a picture.
47	INT.: NFTs?
48	S1: Yes. So NFTs if you need to secure or be sure that this is really the owner of that NFT. So, I mean that is also something where you would have to use blockchain I guess and cause of a transaction. So really interested. That is why we I wanted also to talk with you also and get to know what kind of use cases you see. And especially these two would be the ones that come up to my mind.
49	INT.: Yes. I mean those are for sure. some I mean I have some other maybe if you are interested I that that go a bit further let us say than basic tokenization of things. Right. In the end it is all tokenization but you can do different things with it. Let me just open my document on my thesis to find the right use case. but I can start talking anyway. So Brøck is a platform that is currently being developed by the Norwegian government. that is fully it is a blockchain platform basically. it is hard to find because it has all sorts of letters that I have never seen but it basically what it does is shareholder management via blockchain. So, all the small and mid-caps in Norway that are not

	<p>listed publicly had problems with cap table publication. So, the cap table is basically all the shareholders in one big table. And to update these they brought all the small and mid-caps to this platform. And they can perform some of the let us say shareholder management operations on there. So that is that would be like another use case maybe for me it is where you can manage shareholder information delete GDPR data if needed. you can record shares share ownership exchanges changes in total shares stuff like that really easily. on top of that you can also look into this platform and get almost. I am saying almost because of computational time but practically almost real time data on balance sheets which is basically based on the fact that they have their whole accounting on the blockchain. So therefore, you can extract or compute the real time number of any statement you are looking for that is on the chain obviously. so maybe that is another little advantage you would get because you can instantly compute like the value for the for this instant or for the next ten. So that would be another use case. I think there could be interesting. I am not going to do too many. I mean I am sure you have heard that you can already buy and sell fractional assets overseas.</p>
50	<p>S1: Yes.</p>
51	<p>INT.: Like NFTs but also real estate art all sorts of investments. So that I do not know how interesting that will be though.</p>
52	<p>S1: That brings that is another part I think of M&A rather commodity trading I would say or not a real commodity. But if you it becomes kind of a new investment class. Yes. M&A these days is really characterized by people and being involved in the transaction. Big teams and if you look at these fractions of business or buildings etc. that is something comparable to ETFs. Yes. Which you can trade on your own account. But then I guess blockchain comes into play to really make sure that that window of the building is yours.</p>

53	<p>INT.: Yes. Yes. Exactly. To yes. To how can I say verify or validate ownership. That is the main the main point. Yes. Okay. two more and I think then we are good. I do not want to go too hard on your time either. so first one is there is a centrifuge. I do not know if you have heard of it. It is one of the biggest credit and lending or financing platforms that is fully crypto based. So, they do a full-on chain know your customer. They give out from their liquidity pools and so on. So that is happening and that is also B2B. So that that is one of the bigger platforms that works in that field. And then I have one that is a bit challenging, but I would like to ask an expert because I would like to get the opinion on this. So, there is a website slash marketplace it is called Acquire Fi. And basically, they say to offer it is a pretty young platform, but they say to offer the first and I am going to quote this here now first of its kind M&A marketplace usually utilizing blockchain technology and tokenization to basically do the whole M&A online. And I mean this obviously is highly risky and I do not advise this to any bigger company but is this something you have thought about or what? What is your opinion on this? I this is not a gun to your [head].</p>
54	<p>S1: Head to really get to. I have not heard of this before I guess but there are several platforms. I mean one smaller approach is. I do not know if you heard about car finance in Berlin if you know those guys. I mean they recently sold their business. And I mean I have always said.</p>
55	<p>INT.: Sorry I cannot hear you anymore.</p>
56	<p>S1: Can you hear me? Hello?</p>

57	<p>INT.: I mean I can hear you very quietly, maybe the microphone input...</p>
58	<p>S1: Is it better this way?</p>
59	<p>INT.: Yes. No. It is better.</p>
60	<p>S1: So, a car finance It is people always say we do stuff digitally. Yes. We do your M&A process end to end on an autonomous basis. But M&A at the end of the day. When you think about billion-dollar business is important because a lot of money involved. Smaller companies SMEs are very important because normally, it is owner based. It is the lifetime thing for them and you they always want to have people involved in a way you cannot do it really optimized. There is and I am really you know I would be the first one to apply blockchain in M&A because I think there is so much more to do in digitization M&A. But I came to the conclusion that at a certain point people do not only want to have some digitized solution you can always use it as a tool, right? For certain aspects. For instance, deal origination bringing parties together looking for long list short lists and also doing analysis these or building preparing the teaser or info memo these expert aspects creating you know working group list all that what we had done for years redacting docents where I spent nights before. Yes. That is all stuff we can get rid of with these technologies for the entire M&A process. And I am new to this Acquire.fi. I will give it a thought a look later on but. I have the feeling that it will at least for the next 10-15 years be a business where you want to have people involved. Maybe it changes the paradigm but difficult to say.</p>
61	<p>INT.: Yes. I mean just maybe to sound off on that too. I definitely think the same. I thought the same before our call as well. I do not think the professionals will disappear at some point. I just think it will be a shift of less tedious tasks going to the computer and let us say</p>

	<p>more responsible tasks. going back to the to the professional so that for sure. I think we are. Yes. On the same on the same page regarding optimization. Yes. But it will never fully be there. Or if they are not within the next ten 15 years just seems to be a little far out yet.</p>
62	<p>S1: And if you if you have a Robo-advisor for instance. Yes. I do not know.</p>
63	<p>S1: Also estimate they do asset management here, I guess. And asset management. Yes. If you I do not know are a very wealth high net worth or ultra net worth. Ultra-high net worth person. Yes. You will not go to a platform like this but rather you want to have a person that takes care of everything for you. And if you do not want to spend a euro or only €10 a month you go to Acquire.fi because it gives you some more expertise than you have from reading the newspaper. So, it will change business but not entirely.</p>
64	<p>INT.: Yes, that so far is that is my summary or my conclusion as well. All right. So, I have all my questions. I have one little quick fire round prepared. I just wanted to ask you to maybe quickly comment on the assumptions that I had in the introduction. Just your opinion from 1 to 6. It does not need to be way long. I will just share my screen so you can see what I am talking about. One second. Okay there we go. You should be seeing my screen now.</p>
65	<p>S1: Yes.</p>
66	<p>INT.: All right. It will go sharp in a second. There we go. so. Yes, maybe I will just leave the floor to you. Or you can take whatever time you like. I have time I do not know.</p>

67	S1: I only need to say 1 to 6. Right. or is this. I know you need to have a qualitative answer, right?
68	INT.: Well, how do you mean in what sense?
69	S1: First of all, you have 1 to 6 questions and I understand that I need to give like a school mark from 1 to 6.
70	INT.: Oh no. I am just a general like to each of the six sentences just general comments whether I do not know you agree disagree additions anything to enrich I.
71	S1: I Will answer those questions... M&A transactions are notoriously... Yes. Yes, they are. if you have the wrong advisors on your end because an advisor is focused on his success he wants to do as much transactions as possible and that makes M&A a very intense. And. They are but often enough too long and ineffective. All right. I go further on with the. Yes.
72	INT.: Okay.
73	S1: So due diligence? I would not say so. due diligence has if you once again are a good advisor, you have a due date where you work towards. And based on that you are very effective. And it is not the most time-consuming part. Most time-consuming, I would say should always be the equity story behind the deal having the rational in place and convincing the decision makers that it is a good and thorough investment because you can I do not know Google thousand studies where they always say that that people pay too much and not based

	on the report or valuation report but rather because people just want to make the deal. So, DD is a is kind of a tool but it is not the most time consuming and it should not be the one. But just a little.
74	INT.: Second follow up, since there it says one of the most time consuming...
75	S1: But compared to the commercial part and producing the whole rationale for the deal I would say it is not that long, but it is certainly somewhere between the middle and the lengthier parts. Yes.
76	INT.: All right. Okay. Yes. Perfect thank you.
77	S1: And point three. Yes absolutely. people should really see the importance of financial due diligence especially the earnings impact for them. And the post deal performance. Yes. You need to really see who the decision maker in the company is. How will performance be secured in the next periods? But just from an accounting perspective the example I gave to you before where the sales just were gone that can lead to a very bad performance just from a technical perspective right now. But in a DD report we are always providing you with risks or emphasized risks that could lead to a decrease of sales in the future because you need to assure that key person ABC needs to remain with the business. Yes. Or we see that key customers have a change of control clause, or they will move to the next party because you will now be a company from shareholder ABC that they do not like etc. So. That is something that we also address in our reports. Okay. so, in point four. I am not really sure if I can answer that really thoroughly because I am not really aware of the blockchain movement. I understand that it is a very helpful technology that will become even more important with more data in the world now being available and also this technology that creates more data which needs to be checked for correctness but I am not aware. if institutions or

	investment banks or we do not work with blockchain technology at least in our department we do not. And I do not see investment bankers using that technology in the M&A world, but it will hopefully come one day.
78	INT.: Okay. But do you see maybe within the big four any efforts to tackle blockchain applications for enterprise context?
79	S1: Sure. But those are all more or less our advisory folks who are digging into that matter helping companies possibly with their data management cloud transition and that kind of stuff. But from the just from the from the technical set that we have in our departments and tools that we use we do not use it these days. but yes, it will come into play I guess but not presently.
80	INT.: Okay. I am asking and this is not to create any sense of urgency because one of the one of the Big Four's, EY namely, has relatively wide offer on blockchain applications for business operations supply chain accounting and so on and so forth. That is why I asked from what.
81	S1: I hope our folks have it two but I am not really here in our office we I guess we have them in supply chain management consultancy and that areas there should be a place elsewhere where we do some things but not in the normal deals practice. Yes, I do not see it.
82	INT.: Not necessarily. Yes sure. I mean this needs to be developed first but I am just trying to phase out whether the big four are actually looking at it at least.

83	<p>S1: Yes. But I have to ask Petra, our CEO... Point five. Yes. I mean they surely can. And they often use techniques that I know from our fraud investigation teams that are not part of the deals practice. They are part of our audit folks. But yes, they use some techniques, and they certainly can be altered if a person wants to change it, he can if he has discretion over manipulating the financials and in our transactions I first of all believe in that that the data is correct. And if it comes to my attention that there is something incorrect with the data, I normally only see that accounting as I said is incorrect because of lack of expertise. Okay? Okay. Information asymmetry. I mean this is a write living with information and making use of it and creating different views on information not incorrect information but playing around with information having more transparency than others. it can certainly make the M&A deal negative but it is always the view. Yes. If you are on the buy-side, I think it is more critical when you are on the sell side you sometimes favor one buyer one bidder and then give them more information. And there is certainly asymmetry between the parties. And that is something which is explicitly managed by the sell side. so certainly, yes negatively but also very positively.</p>
84	<p>INT.: Yes. Yes. It depends on whether you are selling or buying, I guess. Absolutely.</p>
85	<p>S1: Yes.</p>
86	<p>INT.: Okay. Okay. All right. So, from my side that is the content of this interview. for me it was super helpful.</p>
87	<p>S1: It was also very helpful for me. I mean okay cool. If you have something finished one day maybe you can send it over. I will take a look at it. Yes, for sure for sure.</p>

88	<p>INT.: I was about to say that the next the next steps would be. So, I will have a couple other interviews. There is another one today. there is also some planned with the blockchain experts to have a bit more tech side of things. And the most body of the work is done so I mean I will for sure let you give you a smary of the thesis before I hand it in. That was always my plan. And then when the whole. Book let us say is finished. If you want a full copy I can. I will gladly provide one to you. Yes just.</p>
89	<p>S1: I mean go ahead. You do not have to share it upfront with me. Just focus that you get a really good mark and. Yes. And then if you if you find the time send it over to me later on. And but first of all the best. and yes. Interesting topic. Thank you. And. Yes. How much time is there left when you have to end it?</p>
90	<p>INT.: well, there is not a final date. The next possible date would be the 12th of February.</p>
91	<p>S1: Okay. Well then.</p>
92	<p>INT.: Yes, it should be soon. I am aiming for that one.</p>
93	<p>S1: Then all the best. Good luck and talk to you then.</p>

94	INT.: Yes. Thanks for your time. if there is anything on second thought you want to have anonymized whatsoever let me know. I will gladly. Yes. Black out anything you do not want in there. So. Yes you.
95	S1: No. Sure. No worries.
96	INT.: So yes, thanks again for your time. I will let you know as soon as I have some output to present.
97	S1: Brilliant. All right. Thank you. Have a good day. Bye. Bye.

Appendix C: Transcript Interview No. 2 (S2, 10.01.2024)

1	INT.: [Inaudible]
2	S2: [Inaudible]

3	<p>INT.: I am going to switch to English now that we are recording. Of course. So, first, we just talked about it, so maybe, are you fine with recording? If yes, if you do not want the video to be shown, of course, I can only keep the audio file. But generally, are you consenting to me recording this session?</p>
4	<p>S2: I am okay with the recording.</p>
5	<p>INT.: Perfect. So then, thanks for your time and for making time more specifically. so, I have, I mean, I sent you a little introduction message, but I think it would be a good idea to make a little introduction now as well. I am Léo, I am writing my master's thesis, in UNIPD and with the company mm1, for which I am working right now. and the topic of my thesis is whether or how blockchain technology can alleviate some of the issues, if there are any, in M&A transactions. And I am looking specifically at the due diligence process, the financial due diligence. more exactly. So that is the key content of the thesis and of today. I have prepared since this is semi-structured, I have prepared some more open topics. Each is about. I planned about ten minutes, if that is fine. If we are quicker or you have less time than, perfect scent, we are good. All right, so the first, and I think, we should start with that. The first would be a little introduction. I spoke about my thesis. Now, maybe you can give a short summary on, who you are, what you do.</p>
6	<p>S2: Of course. So, my name is [Name]. I am from Italy, from [Italian City]. And I did the same university as your that you are doing right now. I have been studying with, Buttignon, and Campagnolo as well. I have been working in the M&A sector since 2016, before I was, business controller for an Italian company. And I have been working in the US for a year or so. so, since 2016, I, I have been in the environment of M&A and my role is, manager of transaction services at [Big Four Company] right now. I have been working for price, [other Big Four Company] before in Italy. right now, I am in France. and precisely I am in [French City]. [French Subsidiary of Big Four</p>

	<p>Company]. So, since 2020, and I am a manager so far. So, I am specialized mostly on the infrastructure, business. So not tech. I have done probably one deal for in the tech industry so far. It was in 2020, 2021, probably. since then, I have been involved in more oil and gas and, mostly infrastructure deals. so probably that is it. My side.</p>
7	<p>INT.: Perfect. So, I think that is good for an introduction. So, maybe leading to my first topic, I am trying to find somewhat of a, of a blueprint for, let us say a more generic, financial due diligence process because this is somehow information is less public. obviously, I am not asking for any secrets of some sort, but if you could, comment out or detail a little, the typical approach, the step-by-step approach, I mean, I have talked to other experts. I speak a lot about valuations, about debt. so yes, maybe you can just detail out the, let us say, generic financial due diligence process for me.</p>
8	<p>S2: There is never a generic financial diligence in the sense that you have the market, that it depends on the size of the company and on the type of the process. So, if the process involves, a bank, that is leading the process, notably, Rothschild or Barclays or other, financial institution, that are in charge of, of the process. there is a VDR. So, it is more structure, the process. and in the VDR you can find out. So, let us start between the three different types of financial decisions that you can have. You can have a vendor diligence, vendor assistance or a financial due diligence. And then if you have, a buy side due diligence, you can have the vendor diligence in front of you that that was prepared by a competitor or not. So, I am [Big Four Company], [Other Big Four Company], can do the financial diligence on their side. So, the figures are already, let us say treated. So, the number have been, let us say adjusted and everything. And we are going to do a review on of the report on our buy side process.. So, we started with a bi site, due diligence with a vendor diligence in front of us. So, with the information that is clarified, and everything is adjusted and. With, with a team that already been working on that. For several weeks or months or maybe years. So, it happens sometimes., and then you have less structured deals, notably with, small size companies. And there is no financial adviser or sell side adviser, let us say so. No Rothschild. No, any bank or more, let us say a little bank and little institution that are leading the transaction. Taking the success fee.. so, you can or cannot have the VDR in this case. So, you need to write</p>

an email asking for, basically we have our, our customer, we need to deal with our customer and start processing by asking a series of information. Request list. This is the basically, the main, the main docs we are going to sell, as preliminary information request list, depending on the skills of the company, you can have the information within a couple of days. Even less than that sometimes or several weeks, depending on, how structure is the company that you are acquiring as a customer, client, or our client and how the, the these, target is, structure internally. So basically, that is it. So, we have been talking about the information request list. We are talking about the process with vendor diligence in front of you. But if the process is for small companies, you do not have the vendor diligence. So, you are going to do the work. You are going to do the work, meaning that you need to take the account and decide which is the account that is going to be used. Is there was there an audit of the company or not?, that is going to be different because you will have or not some confidence on the on the figures that you need to look at. Because if there was an audit, notably a 31st of December for 80% of the company in the world or, other, closing date. you are pretty confident, depending on the of course, the institution that did the audit because there is a declaration. The audit went well., we have the information. There is no opinion on the figures that were, reported. otherwise, you have some general ledger trial balances to trying to reconcile the trial balances with some more, specific figures that you can find, of the company, public figures or not. And these are the most dangerous, let us say cases in our, due diligence. Because if you do not have an audit, it is going to be difficult to understand which type of, information you are looking at. and this is why the most probably I remember some question about that that you sent me yesterday, the most inefficiencies, Pain points challenges is reconciliation, reconciliation with audited account and reconciliation with public financial figures. So that is a reliable in our case because, I want to stress the point that it is not an audit. We do not do audit. We do, due diligence. Yes. In our, in our work, meaning our analysis go beyond the audit figures. So, we take the figures and we are going to analyze if there was, let us say window dressing of the, of the numbers that they are presenting, stretching of, payable during, yearend period or year end and half, half year period because of covenant that needs to be, to be respected for, for the financing.

9	INT.: [Inaudible]
10	S2: [Inaudible]
11	INT.: Maybe one, one thing because we are moving into the, the second topic and, for now, I, I am still looking at, to, to find like, key elements of the more general FDD process. I mean, for sure, it varies from deal to deal and from size to size. But yes, there should be key, some key elements that you.
12	S2: Want out of the process. Yes, you want the process. So, information request list. Then the management is going to come back with the information they collected on all the topics. So PNL balance sheet and cash flow topics, notably, plus all the potential quality of earnings and quality of depth adjustment that they can find themselves, or we can help them to find some adjustments by analyzing the docent that we provided to us all, the docent must be reconciled with the audited figures. If there are audited figures, and this is internal work., then then you start with the normally there are some interviews with the management asking questions. So, you are going to provide them with an agenda a couple of hours, one hour, three hours, depending on the size of the company, the size of the deal and the time of the management. Of course. it can be done through, calls or through, email exchange. so, we are going to collect information. you can have one, two, three, four, depending on the timing of the due diligence that need to be done. and it can be like our client, if you are by side, it can be, present or not in the Q&A sessions that we are doing. depending on the private equity, notably, because I forgot, I forgot that, but you have both private equity and corporate due diligence. So. Sure, if there is like multinational company, of course, if it is a vendor diligence, you are working with the management that is providing the numbers., you can help the company to, to provide the numbers to the market. And you are not putting any reliance. This is more technical and more legal, let us say work. And if you are not

	<p>doing that, you are doing a vendor assistance and the vendor due diligence. Some market, like Germany, are more vendor assistance and vendor diligence are really small part of the market, other market like the French market or the Italian market as well. it is mostly vendor diligence, let us say type of contract. there are assurances about, limited assurances, kept assurances about the job that we have done. it can be between, I do not know, three times the, the fees that, the, the client paid us or one million, €2 million, depending on the company, of course.. Any questions so far?</p>
13	<p>INT.: No. I think for the process. That is good. That was it was good to clarify in like a speedrun of it. That is good because I do not have that kind of insight privately. But it leads well to the second question with which you started earlier. So, now that we cleared up the process, looking at pain points, challenges and also the most time-consuming tasks. So maybe if you can elaborate on these factors.</p>
14	<p>S2: Time consuming task. I will start with time consuming tasks because actually, this is quiet. I want to stress this topic because when you need to prepare the numbers and the figures and collect all the figures, it depends on. So., it depends on the type of process where you are. Again, it depends if the company is audited. So, if the company is audited, you know that the management of the company has already done some, let us say, pre required job with the auditors. So, the figures that you are looking at are quite record are reconciling quite well. Or they can be like to easy to explain the reconciliation items between what is audited and the management reporting. Because of course there are different type of figures that we are we can look at.. In a due diligence., so the most time-consuming activities are. Reconciliation. Then. Cleaning of the data, because of course, there are many people inside an organization, normally large organization, that take, Excel files and you can have Excel files that actually everything is, exportable to, to, to an Excel file or CVS file or CSV file, notably ERP like SAP. do that.. And so that is a data collection. Probably this is the first one. So, like the several weeks that can take for a small company to collect all the data and you can have like paper data. And if you have paper data you have the crunching of the numbers inside an Excel. This is time consuming. Second one, reconciliation with the audited figures or the figures that are provided to the tax, organization in Italy, for example. number three data reconciling and then number four, data analysis, because you have different</p>

	<p>type of analysis that you are doing depending on the industry that you are working on. Of course, infrastructure industry is different from retail. That is different from bank and insurance industry different from television different from whatever technology. So, depending on the type of industry, you are going to do some type of analysis that can be less or more time consuming. and that can require more stuff or less stuff, depending on the insight that you want to have. of the company, normally private equity fund, are asking about precise type of analysis they want to do through us. So basically, they are, let us say, externalizing some analysis to us and they are doing other parts of the analysis themselves, or they want to check if they did right, or they want to check what is ours. Let us say point of view on that. So, we are at four. Five with the data analysis. What else? Basically, everything that is not, automatic. So, we have some tools, in the, in the Excel and the PowerPoint that are already helping us with the, let us say, connection between Excel and PowerPoint to prepare the, the report. Depending on the company you are working for. There are different tools, but basically this is what they do., otherwise,. (...) Let me think., so we will talk about that. And then you need to write the report. But this is just. I will say expertise, meaning that once you have been writing like several reports, it is going to be fairly automatic what you are going to say about the company, because I want to stress the fact that since we are in a context or in a basic context, we need to be. Let us say impartial. So, we are going to look at the figures. And our report are in particular in a context we are not, preparing like a quality. You know, what quality of earning is.</p>
15	<p>INT.: Sorry. Quality. What? Quality of earnings.</p>
16	<p>S2: Quality of earnings.</p>
17	<p>INT.: Yes. Yes.</p>

18	<p>S2: Okay. So, quality of earnings. Cannot have like only positive adjustment for our client if you are in DD if you if you know what I mean. So, it can be it should be. It is impartial because you are not taking part. you are not taking any success fee., our fees are not related to any success of the deal or. Or not., we are going far from the question, I guess, but.</p>
19	<p>INT.: No, no, that was that was a good comment to add because, I mean, I have heard a few things, but I do not know everything in that level of detail, so it is good for me.</p>
20	<p>S2: Please do not hesitate. Sure.</p>
21	<p>INT.:, okay. So is there. What struck me was you said, anything that is not automated. So, what is not automated?</p>
22	<p>S2: The., Everything that our teams do., basically, the mapping of the trial balance to, to create what we call the balance sheet overview, PNL overview, cash flow overview. All the everything. There is nothing that is automated, actually meaning, the only thing that is automated is some formatting, probably, okay. in the Excel, otherwise, everything is done, on a, on an Excel spreadsheet. So, there is nothing that is automated. you can be you have like some tasks, for example, some pre, pre-compiled not sure pre-compiled information request list, for example.</p>
23	<p>INT.: Okay.</p>

24	<p>S2: Depending on the industry, but nothing specific. Meaning all the analysis that can be done and should be done depends strictly on the company and the history of the company and the industry., and every time you need to start from scratch. Okay.</p>
25	<p>INT.: But I heard them. Or what? Maybe. Let me rephrase. I have thought to have understood that you see some potential in the in the reporting in general. Is that correct? In the generation of reports. So, of the final due diligence report, for example.</p>
26	<p>S2: The standards, you mean.</p>
27	<p>INT.: The standards. I did the final, due diligence report that you hand in. the way I understood you is that there is some potential to automate parts of that, because that is basically just putting the info that is there together.</p>
28	<p>S2: Just there is just, a tool that enables us to, to link the table that we, we do in the Excel spreadsheet into the PowerPoint. And then if you are going to change the table in the Excel spreadsheet, but it is really limited, very limited. Okay. You can double click and update the table, but it depends on the formatting and several stuff. Meaning, there is no analysis that can be done in an automatic way. Okay. It is not like, you can put, like, all the docents that you received from the, the customer. And there is a computer alone that can work on that, probably artificial intelligence.</p>

29	<p>INT.: All right. And so, the way I understood in the, in most of the cases you have audited numbers. So therefore, you just... Basically, take them as true and do not check for validity and verify them. But in the case of smaller companies, the way I understood it happens that you check for the numbers, and you do need to check it. You need to check. Okay. So, in that case there would be some benefits.</p>
30	<p>S2: On the, on the, on the threshold, on the threshold of the mistake. Meaning if you have a small company, the threshold, of the mistake is quite, quite high, meaning, that the, the, the small account, the accountant that is putting the number there is no, no audit of the number that you put in the roads. So, you are going to do that.</p>
31	<p>INT.: Okay, so you have to double check to avoid fraud and other like let us say accidents or risks. So, this kind of leads me to the second last topic, regarding sensible tasks. And for me, a sensible task is anything that either affects the deal performance or the deal outcome in a major way, or any task that can be susceptible to fraud in some sort, whether deliberate or by accident. But ...</p>
32	<p>S2: A deal-breaker?</p>
33	<p>INT.:, yes. Well, not necessarily. I mean, it does not need to be a deal breaker. I am just more worried about the task from a process side of things. So, what are like, essential figures, outputs that that, yes. Cannot go wrong or that can be manipulated in a way to maybe be misleading. Does anything come to mind in that regard?</p>

34	<p>S2: A many things. Inventory, for example.</p>
35	<p>INT.: Okay.</p>
36	<p>S2: This is the,. Or you have actually, since we are working on the EBITDA, all what is not cash in EBITDA should be really, looked, actually, you are asking me about my some sensitive, knowledge meaning of the.</p>
37	<p>INT.: Yes. Well.</p>
38	<p>S2: No, no, I understand, but actually, you have all the non-cash items in, within the, within EBITDA that you need to look at research and development and inventory is not non-cash is highly , let us say, you can work on the inventory, depending on what you want to the outcome to be, you can work on that. Let us see., and I saw some cases as well. or provision as well, depending on the provision, that provision policy that you are doing when, when I am talking about provision, I am talking about provision for risks and charges. or. Well, I already talk to you about the stretching of the DPO meaning a payable. (..) When I say a non-cash item with the EBITDA is going to, it is going to list all of that, plus all the, let us say,. Fraud can be done, at cash level.. That right now are more... Once you have done the bank reconciliation in a proper way, you are pretty sure that is going to be. Correct the cash that you are presenting in your report.</p>

39	<p>INT.: Okay, but sorry, I did not want to go too deep in in in the secret. So, we leave it at that., the inventory part was something I actually heard somewhere else, already. So that was that was enough information for me there., okay. So that was.</p>
40	<p>S2: You have plenty, plenty, plenty of way to.</p>
41	<p>S2:to play with inventory.</p>
42	<p>S2: So, you, you can do like a thesis on, on the inventory, to be honest, because I saw many things and I saw many like one private equity fund that, was, let us say the EBITDA was too high and they bought like, too high EBITDA. with respect to what was the real value of the company. And there was a problem, to be honest, like the overstocking. And, I have been working as well with, with a partner in Italy that was doing like, cash EBITDA adjustment that I have never seen before, because of overstocking of material that was not sure to be sold right after, retail sector is going to be really interesting analysis that you can do on the retail sector, notably on the pre-sale and after sale, sales and revenues and margin on that.</p>
43	<p>INT.: Cool., so I have to stay within time. Sorry., so. What else we have left., more switching topics, maybe. how familiar are you with, blockchain and tokenization in general? Not at all.</p>
44	<p>S2: Not at all. I understand the concept, but I am not so familiar, to be honest.</p>

45	<p>INT.: Okay, that is the concept is well enough., I mean, from what I heard so far from. From you,. It would be in more or. No, sorry. Yes. No, I am going to ask an open question. I think that is easier for me., so with regard to especially financial due diligence and, and the pain points we spoke about in the sensible task we spoke about, do you see any area of improvement through digital innovation? So, in my case, obviously that would be either blockchain utilization or tokenization of some assets or asset classes or liabilities.</p>
46	<p>S2: Yes, I mean to be honest with you, I, I do not know, I think that probably AI can, can help on the optimization of the process, to be honest, tokenization., I do not know. I saw an after you, you wrote me, I read an article of Bain and Company, about tokenization, but, but I do not know. I do not know, because to be honest, in our case, is really, let us say a case by case, job.</p>
47	<p>INT.: And but would you agree that let us say, information to have the, the certainty that I, the version of a docent is the newest or, for example, that a docent has been originated by a legitimate person., is that always given in your everyday business? Because from what I have heard from other experts, they say that they see they see some potential in some niche areas. Something like, as I said, version timestamping or identity verification, validity of docents, stuff like that.</p>
48	<p>S2: G do like the, let us say, the job of data validation, of an auditor, for example, in an automatic way. Yes, probably. This is the advantage that I can see on that.</p>
49	<p>INT.: Yes. The question is, would you, as a financial due diligence, professional benefit from that, or would you say it is more of a benefit for, let us say, the accountant or the external auditor?</p>

50	<p>S2: Everything that is going to be, that is going to put like,.. let us say a stamp of reliable data is going to be useful for us because we do not need to check on that again, it is going to save us some time of course, otherwise we need to check on that and reconcile on that.</p>
51	<p>INT.: Yes. Yes, I mean...</p>
52	<p>S2: And reconciling the item with what is publicly available, for example. Yes, I do not know if my answer is...</p>
53	<p>INT.: No, it is I mean, the problem is, to be quite frank, I have a trouble asking the questions in a semi-structured way because I, I am not allowed to be too leading. And that is why I am looking for my words really carefully right now. But yes, the answers are helpful., so that is regarding, let us say, data validity because actually.</p>
54	<p>S2: What the blockchain, what the blockchain is going to. Is going to, let us say, bring to the M&A sector in your view..</p>
55	<p>INT.: In my view, it will enhance transaction by minimizing stuff that is time consuming. So, for example, checking that the version is the newest, checking that the version is really sent by verified person A to verified person B, also you do not if you have all. Imagine you have a VDR on a blockchain, and I am sure most of the VDRs are currently trying to do it or doing it. If you have everything on a blockchain, you do not need to give out credentials. People either have it or not. The system will know by itself whether you are entitled to see that data, and you will not be able to, or you will not even be needing to download data because everything is always online, on chain and at the same time secure and at the same time public. So, you could theoretically do lifetime, lifetime real time calculation of.</p>

	Cash flow statements, for instance, I do not know. I mean, right now you are reporting on an annualized on a quarterly basis, I am guessing for most of the non-EU countries and.
56	S2: Quarterly half year yearly depends on the company.
57	INT.: But not even close to weekly, I guess. And with a public blockchain you could do that. You could check out a number in real time frankly is quite impossible. But let us say within tens you would have the current number. And that is something where I would, for example, see a benefit. Obviously, this is not only M&A related, but also more of a general business application. But, yes, that is why I asked because I within my work see some development in this direction. And, yes, I am just curious to see whether the, the wind...
58	S2: Example, let us take, let us take like, (.), a financial department of a company as small size company or a mid-sized company, let us say, or even a large size company. Does not matter., you are going to have the accountant that is going to record the entry for the SAP system. that is going to create, let us say, data point on the blockchain. I am not really sure how to speak about the blockchain, but, whatever, like a docent for a blockchain. So, the docent has the, let us say the signing of the accountant that did the data. But the data need to be validated. So, so I guess that. How can you validate? Because actually there is a long process to validate the data. And then people go back and make changes. And notably, even the auditor goes back on some opinion that they did on previous year and make changes. What is going to be like the like the, the advantage of the blockchain on all of that.
59	INT.: For one, for example, it can do reconciliation by itself. Since every transaction is recorded on that blockchain, you could automatically see, prove, or disprove whether a transaction was a possible be. Lawful or non-fraudulent in a matter of seconds. You do not need

	audit because it instantly audits itself by computing all data that goes into. Yes, in an in and out the company. But that is maybe a bit off topic. I am not sure.
60	S2: No, everything that is going to provide information more quickly is going to be an advantage for us. So, if this blockchain technology can add value in terms of timing, is going to bring value to us because of course you have many start and stop the processes and you have the stuff that was planned to be in charge of this, this project. And then you do not have the stuff anymore because they are, so yes, everything that is going to work on the timing and reliability of the data is going to be some value. It is going to add some value to, to our companies.
61	INT.: So maybe just to give a like a little a little idea. e y so I am sure you are familiar with the UI., have launched their own blockchain based protocol is called nightfall. And nightfall is, is basically allowing them to handle any kind of business operations, but also transactions on their blockchain network. and I had read the Ethereum Business Readiness Report that came out in June just recently, and they say they can handle between 40 to 400 million transactions a day within their network and plan to scale it up to 4 billion transactions in a nearer time frame. Just to give an idea of how massive amount of operations this already is, when you when you.
62	S2: When you talk about transactions. Sorry just to forsake of clarity on my side. What do you mean?
63	INT.: In this case it can be payments but also, supply chain, goods movement. Because they are using this tool for several things. One use case is as a payment platform. So, imagine PayPal basically with extra technology. But it does the same thing. And another use case is for example traceability of supply chain. So, goods that are being traced or being placed in big warehouses and replaced and move to

	<p>other warehouses and so on. So, to trace that you could also use blockchain. And basically, each of these things would be regarded a transaction. When written on the chain. So that is why I said operation is maybe the better word. But yes, any transaction is an event, basically. Okay, okay.</p>
64	<p>S2: Understood., yes, I confirm what I just said. So, everything that is going to.</p>
65	<p>INT.:, we are almost at the end. I have,. Two more little things. So,</p>
66	<p>INT.: Trying to rethink my phrase.</p>
67	<p>INT.:, I mean, no, I think we are good. the last thing. The last thing, I would like to do with you, it is it should be fairly short. Is I have a few assumptions. I already sent them on my, on my pdf, the introduction pdf.</p>
68	<p>S2: Otherwise, I can open that on my side if you want.</p>
69	<p>INT.: Maybe I will make it easier. Yes. No, I got it.</p>
70	<p>S2: Okay.</p>

71	<p>INT.: it is on page three, and it is, basically the core assumptions that I have made coming into our interview. Basically, this is before I spoke to any, any professionals. So, I am trying or looking to validate, enhance, enrich whatever is there. You should see my C screen in one second.</p>
72	<p>S2: I can see I have that in front of me. So, I am in a transactional, notoriously lengthy, and somewhat ineffective.</p>
73	<p>INT.: So, if you could just comment briefly on each of these, whether you disagree, agree, it does not matter. It is just, just checking, the opinions on professionals. I will say.</p>
74	<p>S2: The some M&A transaction are lengthy and somewhat ineffective because, most of the cases, M&A transaction when you have and this is why we do VD, you had a team that is already worked to prepare the numbers, and that cannot be, done by any, I am not sure that can be automated. This, this type of process. So, this is why we do VDD. We prepare the numbers, and then we can discuss the number with a selected team of people that are working on a diligence. So, I will say that probably., is small and mid-sized and, not organized [Companies]. Well, let us say that there are some M&A transactions that are lengthy and somewhat ineffective. I would not say all of that., due diligence is one of the most, time consuming and therefore costly phases of the whole process. So, the whole process, the whole process. is not the only one. again, it depends on, again, the type of process, if you have, private equity fund that is acquiring a company, you cannot like take it cannot take more than three weeks, four weeks because they have, non-binding offer to be submitted. For example, right now, they open the VDR today for six, 5 or 6 bidders of a process that I am, on, vendor diligence side. And the non-binding offer are expected by March the 1st. So, like less than two months and they need to review. Six diligences, I guess. Yes, six due diligences by</p>

	then and had all the Q&A session done in six weeks basically. Okay., so it depends on, on the actor that are employed in the M&A process.
75	INT.: But if, if maybe you could generalize on, okay, obviously if everything is prepared, but I do not know what is the most common case, assuming you have to do that. The most common process. Would you say due diligence is, for example.
76	S2: Just to, to, to be precise, due diligence. You have many types of due diligence. Are we talking about financial due diligence here or because you have environmental decisions. Labor.
77	INT.: We are talking mostly financial due diligence here. Yes.
78	S2: ... the most costly phases of the process. I am not sure this was the most costly one, because there are, like, the organization and the negotiation, process that is more costly. And even the legal is more costly, time consuming. I cannot compare to, to, to or to the rest of the phases, to be honest, because.
79	INT.: Okay.
80	S2: I cannot compare., I am not I am not really sure it can apply. It can apply to some due diligence, but not to all of that., especially with rushed and flawed financially diligence can lead to bad post-deal performance... It is difficult to say that that was because of the due

	diligence, to be honest. Meaning some in some cases, in some cases, notably in the case of what was the name of the platform that, went bankrupt like some months ago, by the crypto,.
81	INT.: FTX.
82	S2: Exact., so that in that case, they did, really bad due diligence or probably not even a diligence. So, and that was a really bad mistake. And then I remember in your introduction here, you were talking about some cases of due diligence that went bad. But I will not say this is a normal, way of making the diligence. For example, for us, there is like an internal process, meaning people are preparing the data. Data are reviewed by a manager and then a senior manager and then a director. And then there is a partner that is saying the last word, and the partner has several, let us say, a project or stuff. So, and for the really big processes, there are many two parts. There are even two partners that are looking at this diligence. So the number and the expertise of the partner.
83	INT.: ...
84	S2: We can lead to a qualitative type of work and the possible performance. Well, all the due diligence that we did in 2019 and 2020 have the Covid. You cannot say it was because of the diligence that the performance was bad. To be honest, in some cases, like the case that I was talking to you about before the inventory. Well, that is difficult to spot, to be honest, because you need to work on the numbers. And if the management is not collaborative enough, you can erase some like some points and some disclaimer on the report saying we could not work on that because the docents have not been provided by the management and the others. It depends on, you know, people, if they are collaborative or not.. But on the sentence how is written in the case where the diligence financial diligence was done not correctly or

	<p>rushed?. (...) I am not sure it is going to lead to a bad performance for the private equity fund. Because the value was not the one that was included in the enterprise value. Or in the net, just in debt evaluation and the SPA agreement, but not the performance of the company. That was just.</p>
85	<p>INT.: Okay. Yes. I mean. That is maybe I did not phrase that correctly enough, but the way I understood you is in case It is not done, the let us say KPMG way, then it could affect ...</p>
86	<p>S2: Not it is not KPMG way. It is the standard way to do due diligence. price [PwC] is the same IT advisory is the same. EY is the same. And to be honest, Deloitte is the same. it is not it is not just a KPMG is like the specialized actor of the, the, the, the industry that are doing the diligence in a, in a formal way that is review., institution. Can I go to point number four? Okay. Institution. Never recognize blockchain technologies potentially implementing this case. (6) Well, I agree with that. If,. If that can help. As I said before, if it can help with the timing or the reliability of the data, it can of course help with the process. I agree with that.</p>
87	<p>INT.: Do you know of any blockchain or audit projects at KPMG that that you want to mention, or you have in mind?</p>
88	<p>S2: No, I do not have that in mind. But I know there is a department that is starting to develop right now since 2021 or 2022, probably, dedicated to, to all of that. But I cannot tell you more than that.</p>
89	<p>INT.: Yes. They are. They probably have their own office, I guess. Exactly.</p>

90	S2: Their own floor.
91	INT.:
92	S2: In traditional accounting, all the data records can be tampered with. (...) Westerns enable accounting fraud. (..) Yes, but the fraud should be verified by the auditor. (..), and.
93	INT.: Well, if again were to be, let us say a bad actor, he could still temper them. And nothing is making the data unchangeable. Or is it?
94	S2: , no. Nothing can make the data unchangeable. But the way that, for example, audit procedure to verify the,. Inventory valuation. There is a procedure that you are comparing to the previous year and to the industry of how the industry is doing for particular industry, doing semi component for a car company, I do not know, they are checking within the industry. So, let us say, have data point to, to compare the value of the inventory this particular year. another example can be, to check the, valorization, the valuation of, an internal developed software with, with the same type of software you can buy in the market, and then you can reevaluate or evaluate, evaluate that in you. Balance sheet because you were recording that at, not fair value, but value that was like your R&D costs that were capitalized during, you know, ten years. But actually, the value of the software you created was, was not, I do not know, ten million, but it was like 2 million or even 10,000, I do not know., so audit process is doing that in traditional accounting. what I can see, (...) Still if. (..), all the. (...) It depends on, what are the rules we are playing with, basically.

95	<p>INT.: Yes. I mean, this is, was more of a general question. I am just assuming that theoretically, you could even as an auditor, if you wanted to manipulate data to be to conduct fraudulent activities, whereas with., immutable systems such as blockchain technology. You cannot change the data. That is the that is the fact. So, you do not really need to double check and check with previous crises of a peer group.</p>
96	<p>Okay.</p>
97	<p>S2.: okay. Symmetry. Symmetry., this negative, that is for sure, but that is negotiation. So, M&A is negotiation like, purchase and sales and purchase process. So, does that. Yes. You have the SBA that is going to probably I agree, I tend to agree with the fact that that can help in the SBA process. So. Between the, on the leakage, for example. Well, there are some, some concept of leakages of, working capital, for example, that you can have in an SBA, and that can help to verify that during the six-month period, between the closing date and the, the signing date and the and the and the closing date. You are not losing any value in this transaction that you just, made. So yes, I agree with, with the sentence number. The sentence is a correct sentence.</p>
98	<p>INT.: Yes. Yes.</p>
99	<p>S2: Number. Right.</p>

100	<p>INT.: All right. So, thank you for this quick round., yes. I think for my side, that was mostly it., maybe if after the time we spoke now, you could give like a final comment on maybe what was interesting to you or where you see potential. What would even if something I did not say something that would be interesting to, you know.</p>
101	<p>S2: To be honest, to be honest, I am interested in, in seeing and in, so first of all, I want to I want to have a look at your thesis. One. One for sure. Yes.</p>
102	<p>INT.: You will be notified when it is handed in.</p>
103	<p>S2: Once you have done that. And I want to understand what are the implications in my in my industry. I know that is, to be honest, and I cannot see a really different way of working, so far, that is going to be more automated, as, due diligence process and due diligence report to be done. But if there is going to be like some saving in terms of times and reliability. So, check to be done through the technology that I can see here I am, I would be really happy to, to, to see that and to work on that and to work with that because everything that is going to save us some time is going to be like free time that we can employ the otherwise, of course. Sure., that that was my comment, I guess. So, I am really,.</p>
104	<p>INT.: Yes I mean.</p>

105	S2: Looking forward to seeing the, the result of that.
106	INT.: Yes. So, to maybe to just run this up, I agree with you. I think, it is not about, eliminating some type of professional whatever. It will only free up time of doing annoying stuff and do more important or more responsible stuff in or tasks in, in that time. So I think.
107	S2: You can apply that if you want to, more the audit sector. Yes. Because I think that in the audit sector you can find. (..) But you can. I do not know, because actually they are doing many, many tests that are like always the same type of tests. So but and.
108	INT.: I am glad you said it because, you are now the third person I speak with that is strictly like a financial due diligence professional. And the more I talk to you, the more I realize that since you do not need to necessarily need to validate the accounting data, validity is not as important to you as I would have thought in the first place. I thought the financial due diligence takes over when the decision comes in okay, and checks from A to Z, but as far as I understand you, you go more into the whys and how is and you asse or you just take the numbers that you get for granted and correct in some way. So, so the let us say benefit. The main benefits I see regarding data security, regarding transparency and all that stuff is probably more, more audit related, which is correct, good, and bad at the same time for me. But it is always good to learn that.
109	S2.: I agree on that. To be honest, I do not know, they were from big four companies. the other, interviews.

110	<p>INT.: That one was, [German Subsidiary of Big Four Company] and the other one is in a smaller group. So, it is not big for us., I do not know, like, multinational German group. They are like, valantic is the group name, so I think they are more like, middle sized type of deal, but focus on M&A in Germany. So, I was more of a niche thing. So, yes, I do not know. I have two more coming and, we will see.</p>
111	<p>S2: Good luck. Good luck.</p>
112	<p>INT.: All right. So, if you do not have any other questions, as I said, if you have any, if you need anything, if you want anything anonymized, just tell me..</p>
113	<p>S2: Let us stay connected, because I am really interested to see, to see how It is going to end up and, just say, hello to Buttignon and Campagnolo from myside all right.</p>
114	<p>INT.: Yes, I will.</p>
115	<p>S2: I hope they are good.</p>
116	<p>INT.: Yes, yes, I talked to Campagnolo yesterday or emailed him, so I think he's doing fine.</p>

117	S2: Great.
118	S2: Okay.
119	INT.: Thanks a lot. I will let you. Thank you so much for your time.
120	S2: Perfect. Have a good day.
121	INT.: You too. Bye.
122	S2: Bye.

Appendix D: Transcript Interview No. 3 (S3, 15.01.2024)

1	<p>INT.: Okay, so I think we are good. Recording started just now. Transcription is starting as well. So, to be officially clear, are you okay with me recording this interview and using the contents for my master's thesis?</p>
2	<p>S3: Yes I am.</p>
3	<p>INT.: Perfect. So welcome. Hello, and thanks for making time. I know it is, “stressy” these days, but you help me out a lot with, this interview. So maybe to start off with, you could give a short introduction of yourself, what you are doing, your experiences, and so on.</p>
4	<p>S3: Yes. I will start with introducing myself. So, my name is Jalil. I am currently a technology and IT due diligence manager at WDP, which is part of the valantic group. And yes. Now I conducted multiple technology due diligence. I think now over forty were also led over thirty of those. So, yes, this is like my main turf, you could say., I have studied mechanical engineering and business administration and therefore have all have also some technical background and have written my thesis or my bachelor thesis, about smart contract platforms and morphology that, yes, in general really dissects the platform selection that users face. And, my master thesis I have written about, the implementation or an assassin model of digital, technologies in the field of M&A transactions, with a focus on private equity investments. So, this is actually my background. Also, the reason I think we are having this interview today.</p>
5	<p>INT.: Yes, exactly, exactly. So, maybe to give a short introduction about my thesis now, so I am in the final phase of my double degree MBA. I am supposed to hand in the thesis by February 12th. So, we are on the last stretch. And within the thesis, I am trying to examine the potential impact that blockchain technology, especially tokenization on the blockchain, could have on M&A transactions with a focus</p>

on due diligence. So, we are, close friends, I would say, yes, from a topic standpoint, the only but is I am focusing more of the financial due diligence, I think, you know, through the introduction paper. So, yes, maybe with, for, for the progress of this interview. if, if you can find similarities or something that abstracts to financial due diligence as well, please let me know. yes, I think I think that is good for an introduction. I have three main sections and an open discussion part. At the end, we are going to try to keep each section within ten, 10 to 12 minutes. And the last interviews have all been under an hour. So, I am positive we should be good., so let us jump in with, the general due diligence process. So, as I said, I am more focusing on the financial part, but maybe there are some similarities and maybe you can, detail out a little bit or comment out a little bit the, the most generic, process. I know it is not never the same. And where maybe some, some things are recurring.

6

S3: Yes, of course we will do. So, give me a second., so basically, like starting the process, there is like a deal sourcing, which is like reticent to the M&A process. And when the M&A process starts, starts, it usually begins with a scoping definition where you define the scoping items would like to examine during the yes due diligence phase. this also the part where usually the due diligence provider sends out request for information to ask for certain items or docents that are, yes, crucial for conducting technology or in this case, financial due diligence. Those docents are then subsequently uploaded, uploaded into a virtual data room where, yes, it serves like a data exchange, which is highly secure due to the fact that there are watermarks also, indicating who had been the person downloaded the docent and also at what time the docent was downloaded. So, this is like the main data interchange platform, you could say. And there are multiple analyses that are conducted usually, like from a financial point of view, of course, is setting the top level, down to the respective driving forces and also driving indicators for the top-level assessment. And in general, it is making sure that the company is both healthy in terms of previous development, but also projecting into the future, has the correct financial foundation to make sure there is like a projection for growth that is possible. So, this is in general like the indication would like to give your financial due diligence to make sure it has not had a company that is going to develop also healthily., usually there is also an interview-based approach where you clarify pending questions and also some things that are quite hard to grasp, rather intangible things. For example, the strategic, thoughts or like the

	<p>rationale behind financial decisions. And then after having conduct those interviews usually on, yes, create a report and depending on the provider, there is also a part where you, give an indication to the purchasing party to make sure if there are anything that needs to be considered in the like, share purchase agreement to make sure that, yes, some inconveniences or some risks are mitigated before signing or signing and then subsequently closing the deal. That would be roughly about it. There is also something that I know from my practice, in technology due diligence, and I think it applies to other streams. So usually I am rather more, leaning towards commercial and legal diligence because there is like a, yes, a close connection between the three., yes, approaches. But nonetheless, it should be the same for all due diligence approaches.</p>
7	<p>INT.: Sure. And, because you spoke, in terms of connection, I wanted to follow up. So are there or can you comment on,. Let us say intersections between financial due diligence and your job or your type of due diligence, which is a more technical because I am assuming, for instance, in in ERP or programs like that that are essential, there might be some cooperation between your due diligence and the financial one.</p>
8	<p>S2: Yes. Usually where financials would come in handy would be, in the context of licensing and also potential for distribution, because usually everybody knows the copyright, which is quite well known. But there is also the copyleft. Do you have, knowledge regarding copyleft? Do you know what it is, or should I give it some introduction? Okay. Actually, copyleft is the exact opposite of copyright, which means that when using certain libraries that have a license, given by like the developer, you need to incorporate that license into your code. And there are certain licenses, for example, the AGPL license that, forces you to expose the entire source code. If you distribute it in a certain format. And when going for financial possibilities and also risks, you also take a closer look at, yes, the potential for distribution and whether there are some amendments you could make to make sure, for example, to, yes, to balance those risks, for example, by using a distribution model that yields a certain revenue you are hoping for, or you are projecting without risking the software, especially in firms where software is a core asset and not only like does not have an auxiliary function, but rather more a core, the core</p>

	<p>asset, it makes sense to make sure that the financial possibilities you are ruling out during the diligence process are really applicable, not only theoretical.</p>
9	<p>INT.: Okay. Okay. So that that is for that. And then you said you talked a bit about VDRs. And so, I, I know more or less what it is or how it works. But, during my research this was, like one, one thing that flagged up where I thought this could be a handy use case for blockchain or tokenization in general. So, since you have good knowledge about blockchain and smart contracts and so on, can you maybe comment a bit on VDRs? Is there already implementation of newer technology or is it as old as the legacy system of banks or.</p>
10	<p>S3: Yes. It is actually... or contemplating on the development of VDRs... The previous process of due diligence, due diligence was conducted in person where the auditors, I would call them, had to go to or on site and assess docents on like an in-person basis. And the VDRs are like a development from that one. But still... very simple in terms of technological use. So, it is similar to like a Google Drive, you could say, or a SharePoint where the data is only provided. But you give a little bit more insight into this. There have been, especially in due diligence phase where of course there is like an. Yes. Asymmetric distribution of information regarding or between the seller and the buyer., the selling party, including the target company, of course.. Yes. Has., yes, it is I would not call it urge, but also sometimes It is attracted to changing docents, last minute to make sure It is, fitting their sales story. And for example, by using smart contracts or blockchain technology, it could be really beneficial to make sure if a docent has been changed or somehow modified. Because sometimes, of course, all vendors also have like the date it was changed to, but not really checking the integrability of the docent. And sometimes this has not happened to me, to be clear, but from other colleagues and other streams I have like gathered the notion that sometimes, docents are tampered with and there is not really a clear way, and especially in financial due diligence, there are a lot of docents when compared to other streams, and it is quite easy to miss something that has been tampered with.</p>

11	<p>INT.: Sure, that that was actually what I was thinking of as well, in terms of time stamping and validity slash verification, I see somewhat the potential to do interesting things, with this technology. Okay. maybe going a bit back to the to the process. what are the typical pain points for you when you first maybe in the, in the technical due diligence and then in general what you have heard or the other way around, whatever is easier for you. is there anything that is especially, I do not know, time consuming or too analog or. Yes, just anything that comes to mind. It can be positive as well. Yes.</p>
12	<p>S3: I think it can be generally said for due diligence that the like process of gathering documentation is quite tedious due to the fact that often companies do not have, especially if in the context of technology, due diligence do not have the docents available. So therefore, you need to, to really, like, have strong interview skills to make sure that you get the information you really require to conduct., yes, the audit in the end. But in the context of financial due diligence, as I said, I am not really familiar or not in depth familiar with financial due diligence. I think it can be said that usually companies do have the required information, at least on a rudimentary level, or like on a base level, where you could say that, of course, the financials are something that are usually tracked by companies and there is no need to create documentation. But in general, I am quite sure there are also docents and financial due diligence that first need to be created. And depending on the experience of the management team, which is also an indication we give to the investor if we think the management team is really, yes, you could say capable and also knowledgeable enough to drive the company further., depending on the, I would say savviness of the technology or. Yes, overall financial., yes. Financials. You could say, it is sometimes quite hard to get the docents in the quality you need. And, also making sure that there is like there are no missing values because especially data cleansing is quite or. Yes, tedious. Quite., yes. Quite challenging sometimes because you do not really know how or from where the data comes from. Sometimes it seems a little bit constructed, but for lack of better terms, a little bit constructed and just made up for the process. And it is quite hard to follow, like the history of, development and also the integrity of the overall, data provided.</p>

13	<p>INT.: Okay, but as far as I know, the process consists of a more. You ask for what you need, like in a more analog way. So, you communicate by email, video or whatever. You ask for what you need. You get a response, hoping that that response is exactly what you need. If it is not, you would need to go back in. Exactly. Okay, so yes, you do not have you would not have, for example, the possibility to compute the for whatever values yourself. Because if you had all data, for example, on a blockchain, you could theoretically ask all these questions to a system and then would not need the human interaction at that point. Not saying that human interaction is not needed in general in M&A, I think is really important, but maybe not to get docents. Exactly. So.</p>
14	<p>S3: Based on my research or previous research, and also my experience, the idea of introducing blockchain technology is to get rid of the intermediary. You could say, yes, and this is something that would really be helpful to make sure that there is like no bottleneck in terms of data collection and rather more an automated process to make sure you have all data you need. Because, as you said, the emphasis is on hoping that you receive docents you want. And as I said, sometimes they are really constructed and not very logical.</p>
15	<p>INT.: Exactly. I mean, there is always differences to be made. I mean if financial records are fully audited by a big four, for instance, obviously. And that is what I have heard from previous interviews, then the data is usually not doubted because why? Why would you? But that is not always the case as far as I know at least. All right., just maybe to wrap up the this, this time dimension, what would you say is the average time you spent on due diligence? I know it is not the same, same type, but if you could give it, like an average or a range that so highly.</p>
16	<p>S3: Dependent, whether it is like a buy or buy or sell side, of course usually sell side is usually get more time. Of course, to prepare, the docents.. Depending on the use case, it varies between 2 to 4 weeks I would say. Due to the fact that technology is often not the core or</p>

	<p>the driving force in the process, rather more confirmatory in a sense to make sure there is not anything that pops up. Because often this this is where financials come in. Often the results of financial due diligence are the deciding factors. You could say, due to the fact that a bad technological basis does not mean that the company is not necessarily successful, because often you could say the customer does not really, neither does he, or respectively. She, understand, the technological foundation and is not really exposed to technology. So, it is rather more important that the overall case works out. And financial and also commercial due diligence., this would be, I would say the driving forces that decide in favor or against an investment decision.</p>
17	<p>INT.: All right. And if you would somehow rank the different types of due diligences. Well, yes, maybe just going from there. What would you say takes longest and what has maybe done the quickest?</p>
18	<p>S3: I think that the financial due diligence... starting in general the financial due diligence is more automated than other due diligences. Due to the fact that often you know what you are looking for.</p>
19	<p>INT.: Yes, exactly.</p>
20	<p>S3: Not to simplify the problem, but it is still something that you are looking for. And it is quite easy to build those models because, according to my experience, also with other, streams, they often build their reports based on Excel sheets. Yes. Where you basically have to have a good sound model. And the reporting is a simpler part, you could say. Yes. And maybe rank like it is a lot of data. So, ranking maybe in one complexity, but also, yes. The time it takes to conduct the due diligence, I would say I would rank commercial due diligence on top. In second place, I would say financial due diligence, followed by tax., yes. And then I would go for tech and ESG. Yes. Yes.</p>

21	<p>INT.: Okay. All right. Good., I think, I mean, if anything comes to mind, please, just throw it in., I think for now, for the pain points, we are mostly good. I mean, especially since you are from a little bit of a different field, so I do not want to go too much., from the core topic., so then now that we spoke about pain points, this is a similar topic. Let us say, what are the most sensible tasks? And again, maybe now first for tech and then if you know anything for financial and with sensible, I mean, any task that is crucial for the outcome of the due diligence. So, I do not know, for example, reliable making sure that financial data is reliable would be a sensible task for financial due diligence, but it could also be tasks that are, that that have a potential for frauds, either on purpose or inadvertently. But that can be manipulated somehow so that this is like a risk point, let us say. So, if any of those tasks come to mind, yes shoot ahead.</p>
22	<p>S3: Made from a technology perspective. It also applies to other streams. It is or it is really crucial to understand the rationale behind respective decisions, because sometimes there are interdependencies that you do not know beforehand that justify a decision. This also applies, for example, to financials, because sometimes you need to invest, for example, to make sure you drive the product further. And, if you only had like a one-dimensional view on the company, it would be quite misleading sometimes. So definitely understanding the context and also the historic growth of the company has, in terms like are you referring to respective analysis or rather more tasks?</p>
23	<p>INT.: No, no, just tasks in general., parts of the, the whole process.</p>
24	<p>S3: Understood., then understanding the flow of data and information just to see where you could potentially gather missing data but also understand who the correct., yes. People are that you need to talk with to understand the firm better. Also, when looking for recommendations or optimization, potentials make sense in the sense how the firm operates, especially, from a financial point of view, because usually, having studied, as I said, business administration and kind of engineering myself, our accounting professors and also, every</p>

	<p>professor in a financial finance related field always said a good, for example, auditor or, yes, you can call it however you want. Understands how a firm operates only by assessing the financial statements. One general, for example, just getting the revenue, profitability financial statement and the respective cost centers for profit centers. You could say it is quite easy for them to understand how the firm operates. And this is also crucial. Crucial, as I said, to understand where the bottlenecks are., and also base your models on your understanding of the context, because usually, as I said, there are some, yes., yes, some asymmetric information that are quite hard to grasp. And you need to at least somehow, be able to trace the thought process of the management team. So, this is why understanding the flow is really important., just.</p>
25	<p>INT.: Just a little question. Maybe in between., so the data flow that refers also to how data is gathered, where from which system it comes from and so on.</p>
26	<p>S3: Like from a system point of view, but also from an organizational point of view. Okay. Yes. So, it is like two pronged you could say.</p>
27	<p>INT.: And this is.. so, on both ends. This is done through interviews and interpersonal communication. There is no way of doing well. There is not yet a way of doing this in a more digitized or automated manner.</p>
28	<p>S3: Those are rather yes, intangible processes. You could say that is quite hard to optimize those processes. But in the term or in the context of financial due diligence, especially looking for legal compliance would also be something that where I would asse an interdependence to a certain extent. Okay. To also understand, for example, if you are expanding to a new market or if you are planning to expand to a new market, of course there are different, yes, assumptions you need to incorporate into your model to make sure that, yes,</p>

	<p>if everything is sensible and this is something that could be quite easily automated by having like a, yes, a transfer calculation for respective countries, for example, where you have, for example, different taxes and also different, yes, financial assumptions to be made in general. Okay.</p>
29	<p>INT.: All right. so now where we were at the sensible task, second ago, the way I understood it, most of these are analyses, parts that cannot really, I mean, in my opinion, should not even be really automated because you need the personal analysis of a humans, at least for now. but does anything come to mind in terms of the underlying what happens on a technical side of things? So, the systems you use, the, I do not know, the. The VDR or any anything that along these sensible tasks is used that that yes refers to tech that is somehow. That you want to comment on.</p>
30	<p>S3: Like. What I would consider also useful is making sure, especially in the field of compliance. Like by receiving current information on the system in general, because often you receive data that is either historic or outdated, especially if you have technology where you do not have the data you need or has already changed. Right. So, it is quite hard to like starting the process is quite hard to be sure that by the end of the process, the data is still valid. You could say, yes, and this would be something that I would say having more automation would really improve the process in general. Also, the validity of the results in the end. And. Yes, that would be about it. Of course, fraud detection would be something that could be quite easily implemented to make sure that. Use this app belonging. For example, if it is a private cloud, users are belonging to the group of shareholders and can potentially not be, interchanged. Also making sure that, it is clear who is holding what, what value you could say., but, other from that, I cannot name anything on the top of my head right now.</p>
31	<p>INT.: Sure. I mean, that is fine., all right, so this is mostly it regarding the sensible tasks., so my topics are mostly done for now. I have the open, discussion. And since you have a slightly different background than different candidates, I want to keep it as open as possible.</p>

So, yes, you know, the topic and, and, we have talked a bit now and obviously there is the, the fact that usually records or financial records are audited. So, validity is not as important as I initially thought., nonetheless, in the interview with previous, financial due diligence and M&A experts, it, it arose a bit the thought that,. That the implementation of blockchain and tokenization and so on and so on is would be more useful in an audit environment than in the in the financial due diligence per se because they just interpret the data mostly as far as I understood. And they are really assuming or yes, they are assuming that the data is correct. So maybe from what I have heard so far, you could comment a little bit on where you see most potential. I mean, obviously there is other I have not gone too much into commercial due diligence. Maybe we are going to leave this a bit aside, but from your perspective, knowing the tech behind it and seeing the work of my thesis and defining so far, maybe you have an opinion on that.

32

S3: Yes, I can definitely second that, due to the fact that usually in auditing you have to attest to the validity of the information. This is not something that is usually done in a due diligence environment. And also, often it is about speed. If you have like multiple people trying to invest, you need to have reliable information as fast as possible and you are not really concerned with being 100% correct, but rather more having the crucial information to have an indication or a reliable indication on., yes. On your assumption. Also, models.. Something that would still be quite useful for all due diligence processes would be security to make sure that access is really, yes, reduced to a certain group. Because I know from some firms they download the VDR and from that point on, it is quite hard to follow who has access to those docents and also who has deleted those docents. So, it would be quite helpful to make sure that there is no trace. Or if there is a trace, there is a trace it can really follow., regarding your circle of people having access to the data because it is quite, sensitive data and you would not like it to, to be distributed to, yes. Third parties, you could say. Maybe to give a little more insight on that. This is also something that is quite hard to implement, like from a technological point of view, because usually you have,. Yes. In Germany, Minister for Information Society, and they are quite. Sure, that some algorithms are applicable for at least a certain period of time. But you do not have the certainty that they are, for example, driven by cloud or. Quant computing could say those algorithms would become

	<p>unsecure. So, it is quite hard to implement a secure, yes, token-based system, like as a, like, should not forget system. So, you need to, to continuously update and make sure it remains secure.</p>
33	<p>INT.: All right. So. We had basically just to summarize, where we saw or from what I understood, where we saw the potential would be, auditing data access, I would say, yes, like, who can access what then?, version time stamping, I am going to call it. So, what is the most recent docent. And then, verification. So basically, is it really being created. Has it really been created by a representative of the firm that is, that has the power or the authority to do so? So, this, this is where, where we see the most potential, I mean. Maybe you can comment on this from the side of, of, technology., as far as I understand, the blockchain, if you were to really have all of your accounting or balance sheet, income statement and so on the chain, you could theoretically have a near real time computation of pretty much every value. Right? So, so theoretically, with regards of, our assumptions from the beginning. So correct. After four weeks, if you had blockchain accounting, let us say, you could have real, more, or less real time data. And no, real time is hard, hard to do, but, close enough., so that would benefit, I guess. I mean, I am assuming that everything that makes data transfer faster and more reliable is essentially doing any due diligence better is would you agree?</p>
34	<p>S3: Definitely. So, every time a system or a process is broken down due to transfer into another system, for example, those processes are quite prone to error. So, you would like to make sure it is like easily automated and also kept in one place. And of course, depending on the use case you do not necessarily need real time at all times. Yes, yes. And. Also, by implementing smart contracts. It is, for example, the development of certain financials do not or are bound to strict rules in terms of calculations. And for example, if you. Sell certain products or services or whatever, and your overall profit increases. It could be something could be easily documented on a blockchain. And yes, you still have the ability to have it. Yes. Transaction history to review the development and up to the current status. So, there is definitely something that could be applicable. And as I said, there are multiple providers now for smart contract platforms that you could use. And depending on the use case, it is not necessarily having to be necessarily had to be on one platform because you can also swap</p>

	<p>coins between platforms. Which would be a convenient issue I would say, because you would not like to have many coins that you need to somehow, manage. But I think depending on the respective use cases it is quite or it would be sensible to have one platform and even it does not support real time, accessibility. This is not like a yes or a critical issue that would lead to the platform not being chosen at all. So, it is depending really on the use case and what you would like to automate.</p>
35	<p>INT.: That makes sense. All right. Okay., so if nothing else comes to mind, I have the I mean, I as far as I can tell you, I have read the introduction PDF, so, I have on page three, but I can throw it on the screen if you want. I have some main assumptions., if you could maybe just comment on those where you can, just your general opinion on it does not need to confirm or negate or anything. It is just, just to get a, an assessment or. Yes.</p>
36	<p>S3: So, referring to the first statement that M&A transactions are notoriously lengthy and somewhat ineffective, I would definitely agree, due to the fact that there is also a time constraint, to accelerate the overall transaction. And usually M&A is known for long working hours, which is linked. To the issues or inconveniences we already addressed. So definitely support the first statement. The second one, regarding, due diligence being one of the most time consuming and therefore costly phases of the whole process.</p>
37	<p>INT.:</p>
38	<p>S3: I would not necessarily say that it is always the most costly phase. It is depending on whether all processes start at the same time. Because sometimes what investors also do, they start one process is the most critical one. And look, if there are any red flags, in case there are not any, they proceed with having the other justices start the processes. So, but in general, I would still say that the overall I</p>

	would say investment for due diligence is quite high. Okay. But also, in in comparison to the overall enterprise value. And at the end the purchase value of course is neglectable. Yes. But it is still quite high. So, I would definitely go for the first part regarding being time consuming, but I would not, sign off the second part, I would say.
39	INT.: Yes, okay. Also, the time consuming obviously depends as always depends, but depends on preparation of the sell side and so on and so forth. But this is just for a general idea. Okay, cool. Thank you.
40	S3: Referring to the third one. So. this statement applies to. All due diligence processes. Due to the fact that if you do not conduct a clear and concise due diligence, and do not inform the investor that there are potential issues that should be considered. For example, in, drafting the SBAs and making sure that you have some sort of, yes, insurance on certain topics, this would almost at all times lead to an issue afterwards, and the investor would invest quite a lot of more money to make sure that you negate the risks that could have been detected earlier in the process. So, this is definitely something I would go for also for the financial due diligence.
41	INT.: Ok.
42	S3: The fourth statement. I have, stopped, like, after having read the first four words due to the fact that the investors are also not really tech savvy, and I think it is quite,. Yes, it chasm between what you would like the investors to have in technological knowledge and what is really there. And often you could really point out that they know of the implications the technology would have, but they are nowhere near in or. Yes, or nowhere near to implementing anything Blockchain-related.

43	<p>INT.: But, just maybe to detail this out a little, with institutions, I refer mostly to the, to the big auditing firms and the investment banks less to the actual buyers. Yes.</p>
44	<p>S3: So often or oftentimes the due diligence providers are, for example, the big four, which also have like consulting unit split in different departments. So, in general I would say they consult other companies by, for example, implementing blockchain technology due to given advantages. So, it would make sense for them to have also an internal projects. Or you have internal projects to implement those learnings they have already gained or gathered in other projects with customers or clients. You could say to, yes, back propagate those information or those findings into their own blockchain platform. So, referring to auditors, of course, this is definitely something for which I would go. Okay. But still you when introducing or introducing sorry when introducing software and also technologies, you need to make sure that also all parties involved are familiar with the technology and also accepting the technology. And I think that that the based private equity investor, I would say,. (..) Need to be convinced of the advantages.</p>
45	<p>INT.: Okay.</p>
46	<p>S3: Okay. So, the first reaction would be okay, it is something new. It is blockchain is like a buzzword. I cannot really pinpoint what it really does, what it what I need to learn maybe. So, there is this. Yes. Certain inhibition I would say, but nothing that could not be., yes. It could not be removed by educating the investors and also all parties involved.</p>
47	<p>INT.:, to comment on that., as far as I have heard or the opinions of the other people I spoke to and the internet, vaguely speaking, is that this is, not something that is going to if it will be introduced. It is nothing. Not something that will be happening tomorrow or even in the</p>

	<p>next year, but rather in a 5-to-10-year time frame. At least that is what I think is realistic. And what other people have told me they think could be. Yes., if you could just comment a little bit on what, what your time horizon would be until we see, I mean, we already have some blockchain business adoption, but not in an M&A context. So maybe to focus on that with the asterisks of auditing maybe as well. Yes.</p>
48	<p>S3: So, I think. That you are proposed timeframe is not far off from my assumption, to be fair, so I think it is a quite reasonable assumption. And this is also something that I asked the private equity investors because I conducted a similar research, as I said, a maturity model of evaluating digital technologies from an investor's perspective. And regarding blockchain, they were all quite firm on the notion that they do not see it for the next three years.</p>
49	<p>INT.: All right.</p>
50	<p>S3: So, 5 to 10 years is a very reasonable assumption.</p>
51	<p>INT.: Okay. But still, I am still hoping or also a bit guessing that big four and investment banks are maybe a bit ahead of that wave and they are maybe trying the first things already. But yes, I think a couple of years for sure. Yes. all right. Okay then. I mean, yes, five and six, are the last ones open? I do not know.</p>

52	<p>S3: Check really quick. So, the fifth one is definitely also something I would go with or would support. But I would not asse that it is really out of malice or yes, intentional, but rather more prone to issues in the data collection process.</p>
53	<p>INT.: Ok.</p>
54	<p>S3: And having those steps automated, also validated would at least make sure that you. Do not have to asse the data is correct, but you could be sure that the data is correct. Yes, this is also something that investors would really, be satisfied with. To know that the data provided is nothing they have to think about. But of course, they know the due diligence is just like a confirmatory process and not really, not necessarily reflecting the truth or the ground truth. And this is something that they involve or incorporate into their models. So, you have different, sensitivities in there in or in the investment models where you say, for example, if this value ranges between, for example, 10 to 15%, what would be the outcome which is or what is the cut off percentage where we that we need to achieve at least. And so, this would lead to more. Accurate models from investors point of view. But also, this entails that, for example, the insurers and also the investment banks are or can give out. More accurate loans to make sure that the transaction is, subsidized.</p>
55	<p>INT.: Yes.</p>
56	<p>S3: And the last one, as I said, is something that is really, really usual in processes because you only, when spending more time, you could be sure that you have gained full insights and that you really understanding how the company works. But in a due diligence setting, that is, as I said, especially in auction settings where you have multiple buyers or multiple, interested parties, you need to be quite fast. And, you do not really have transparency if the provided information or data. Is not only valid, but has there been something that has</p>

	<p>been left out intentionally? Like from a strategic point of view. Also, having conducted multiple, society challenges, it is not about at least, we work, like this. I know from other stories, there are some black sheep you could say, but it is not about,. You are hiding information, but rather more moving., yes. Conflicting information. A little more in the background. But you still have the option at least to remove, yes. Information that is not supporting your equity story or your sales story. You could say so. Definitely also go with six one.</p>
57	<p>INT.: All right. Perfect., thanks for that., so for the plan part of the interview, we are done., the one thing that came to mind, and it is not a must, but if you have any story that comes to mind, anonymous or with names or without, I do not. For me, it is just for the knowledge part., do you have any case, any experience from your experience? Sorry., where? Well, obviously will be more tech, due diligence, but where you said, well, due diligence was bad or flawed or you did not get the information. Does not matter from which side., it was quote unquote bad. Yes., so if you have anything that you want to share, please. Yes.</p>
58	<p>S3: I was referring to tampered data earlier in the interview. Yes. I was actually referring to colleague of mine who is working at a big four company and, without, yes, without telling me the real specifics. You could say, he still told me that there was tampered data, but in the end, was discovered after closing the deal. And this is something that you as an investor, I think is the worst nightmare for you to have, like, certain issues on a financial level. So, this is definitely something. Well, of course. The trust was lost. And especially in such a setting, you try to establish trust as early as possible. Yes, even in the due diligence process, because often in an auction phase, sometimes you have much more invested you would like to work with. And sometimes the people conducting the due diligence are those that are decisive or decisive factor in the end that you say, okay, the experience with a team of said investor was really, yes, joyful. So, this is why I would like to yes. To, to keep on working with that investor. And when something comes up that really questions, the trust or the potential relationship and cooperation, that is quite devastating because it is also quite hard to, to, yes, to, to make sure that you are not contractually obliged to, to remain in that position. And this is why I also said making sure you conduct a good due diligence, due diligence, and also making sure that you incorporate information to the space that could be potential or potentially harmful to an investor</p>

	<p>is really crucial to make sure that everything goes on smoothly. Also, after the closing, because closing the deal and also like signing closing the deal does not mean that the work is over. This is where the investor really has to invest and also add value to the company. And all investors have a certain time frame in mind where they plan and exit and tampered data or unclear statements can really, yes, change the timeline to an extent where it is not really economical anymore.</p>
59	<p>INT.: Sure. Yes.</p>
60	<p>INT.: And two follow up questions on that. First, what kind of data was tampered with? Was this actually financial data or., Yes.</p>
61	<p>S3: I do not as I said, I do not know the exact specifics, but okay. If I recall correctly, this is just out of memory. It was actually, profit from a newly introduced product, where they said we introduce a new product. It was well achieved or well received, sorry, well received, and had a lot of success in the market and we made profit. Of this amount. And the problem was that, of course, they, yes, talked to the commercial stream, but there was like a link between the data, which was also quite,. Yes. I would say, improved. So, in the end, it was. The question is. Would it be possible, or would it have been possible for them to see the issue beforehand? I think no because there has not been an automated process in terms of data collection. But they were diligent. They did the due diligence. But this is something that you could not have caught. Even if you paid more attention. And this is why I said automation would really improve. Or the implementation of, for example, a tokenized system really improve, making sure that everything, yes, is valid.</p>
62	<p>S2: Okay. Yes, that is a good example, actually. Thank you.</p>

63	<p>INT.: And what was the aftermath? So, I mean, as wide as you can go obviously. But did they get sued or did the person get fired or did anything happen at all?</p>
64	<p>S3: I do not know, how exactly it went down for the other parties. I only know that the person in question that conducted the financial due diligence, had some rough nights, I would say. All right, of course, of course., you do not want to be in the position where, your due diligence stream, missed something crucial., but other from that, we have not talked about any further specifics.</p>
65	<p>INT.: Makes sense.</p>
66	<p>INT.: Okay, cool. That was very helpful. Thank you. You are welcome., so, I am good for now.. Two things. If anything would come up, would you be okay if I send you an email or re contact you in any way? Perfect. And then, regarding the next steps. So, I told you I am going to hand in the thesis by the 12th of February. So, if you want, I can give you I can send you a copy or I can give you a summary., my approach would have been to send you the finished written version once it has done. And. Yes., I am Leslie. If you want anything to be anonymized, the video will not be shown., I still have to clear up whether they want the audio files that will be transcribed, but they will probably not be handed in as MP3 or whatever. So just so you know, and yes, if your mind changes on anything, obviously, just let me know.</p>
67	<p>S3: Great., one follow up question. Yes, sure. Will the thesis contain a transcript of the interviews, or is it rather be an aggregated summary across all interviews?</p>

68	<p>INT.: Well, I have to ask my professor for that one. For now, I have transcribed them word for word, except for the s and s and so on. So, it is, literal transcript., yes, but my professor has not told me yet whether he wants the full transcript or not. So, I can let you know as soon as I know. But as of now, every interview will be transcribed minus the arms, hours and so on.</p>
69	<p>S3: Understood. So, in case you get feedback, please let me know just to maybe have a second read over the transcript. But I think in general we should be good to go.</p>
70	<p>INT.: All right. Sure. I will let you know.</p>
71	<p>INT.: Okay then. Thanks again for making the time., it helped a lot., it was very cool to talk to a colleague once, and. Yes. Have a good day and talk to you soon.</p>
72	<p>S3: Talk to you soon. If you need anything else. As I said, please just reach out.</p>
73	<p>INT.: Will do. Thanks.</p>
74	<p>S3: Thank you.</p>

75	INT.: Bye.
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Appendix E: Transcript Interview No. 4 (S4, 19.01.2024)

1	S4: [Inaudible]
2	INT.: Okay, so just for the record, once more., are you fine with being recorded for the purpose of the master's thesis?
3	S4:, yes. Yes, it is fine to me.
4	INT.: Perfect.
5	INT.: So, welcome. First of all, thanks for making the time. I know, time is really a constraint for most of us these days, so thanks a lot. It helps me out a lot., as far as I know, you have been at UNIPD as well, so you might actually know my professors., my thesis father is., Amadio. Amadio. Pugliese. And, yes, I had corporate finance with Buttignon and Campagnolo and M&A. So yes, you should know all these names I think. Yes. All right. So then, maybe we can start off with a little introduction. Maybe you can, speak about a bit what you do, maybe also touch, how much you know about blockchain. Blockchain technology. Just so I know where we can go, where you feel comfortable.

6	<p>S4: Yes. Okay, first of all, okay., nice to meet you again., my name is [Name]. I attended [University], the undergraduate program for the undergraduate program., 20, 18 years ago, the 206 and two, 209. So, it was a lifetime ago., now I, I am a senior manager in. I. So a brief introduction of my career. I started working in [Big Four Company] as an auditor. So, after I left Padua, I joined, I attended [University] and then I, I took a master in [University]. After that, I began as an auditor in [Big Four Company] for five years. After that, I joined to [Big Four Company], and I spent their two years where I, I covered financial due diligence matters. And then, after that experience, I joined to a boutique firm called [Name]. Where I covered, I mainly covered, restructuring, matters I. Yes, I added also financial due diligence., of course, for, smaller clients, smaller private equity clients and corporate clients. And after that I joined to e, from. To., 2022 if I remember well, and currently I cover. When I share due diligence matters with focus on TMT sector. So.</p>
7	<p>INT.: For clarification. The TMT sector. What is it?</p>
8	<p>INT.: The TMT sector. What is it?</p>
9	<p>S4: Is telecommunication, media, and technology. So, all the tech, media, digital sectors, telecommunication in Italy is quite, concentrated sector with few clients. So, my. (..), my expertise are. More on digital and media. Okay. Perfect. And I do not know, how do you how much do you do about, do you know about the financial due diligence? But my, my. Day by day activities regarding the analysis of statutory financial statements, trial balances and,.. okay. Let me let me do an example about my standard project when a client came to us and asked for a due diligence.. First of all, we prepare a scope of work with our activities as we plan to do on this target, because in this example you can. Sorry, step back. We can have two different, kind of work., sell side or buy side. So, if our clients wants to sell their company us, to us to prepare a vendor due diligence, vendor financial due diligence, where we prepare a data book and a report</p>

where we explain to the market and the potential buyers that our company, our company performed, well in the last three years. And we prepare in an EBITDA adjusted statement, a net financial position adjusted statement and working capital adjusted statement. So, these three analysts are the main the core analysis. And we, and we also do, ancillary analysis on the business overview. So, we prepared also analysis on, price vole mix analysis., pass through analysis where we, trying to understand if our client is capable to pass through their clients, eventually, increase in raw material prices and so on. So, our package help our clients to have less effort in a second step with the potential buyers. If, a target company do not want to prepare a vendor, due diligence might be incurred in a lot of effort. In the second step, when maybe they have 4 or 5 bidders that have to prepare by side diligence reports. And so, the target company should prepare five set of data for five different bidders. So, this is the why companies tend to prefer vendor diligence, report, when they want to be sold., the majority of due diligence are of course buying side. So, our clients, want to buy a target company. And so, we need to prepare this report with the, with the focus to help our clients to. To have the better understanding of the target company from a financial standpoint in order to have, the best information to prepare a fair valuation of the company. So,. (..) In the practice, I see that the client's private equity and corporate tends to, to think in terms of EBITDA adjusted., net debt. Adjusted net cash or net debt adjusted and working capital swing. So, the valuation of a company, tends to be made in terms of, EBITDA, multiple, plus or minus adjusted net debt, cash plus or minus the swing between the target working capital and the actual working capital at the closing. So, this, is the this is the reason we prepare our analysis focused on these three statements, adjusting working capital, adjusted net debt and adjusted EBITDA and substantially ours. Our,. (..) Our work lasts for. (..) With an average of three four weeks., it depends by the complexity of the target, of course., and the. That will enable the management to prepare, data. We request, and so on. So, this is ours., average, project. But the if you have. Question about that, please.

10

INT.: Okay. Now, this is, more or less already going into this. The second topic, the next question would have been whether you can detail out, like, a generic financial due diligence process. That is more or less what you just did. So that is perfect for me., it was this also

	<p>in chronological order just for me to, to understand. So, it is, I have to go in the notes, so it is first EBITA adjusted, then the net cash and the working capital in that order as well. Right.</p>
11	<p>S4: yes. So. (..) There is not an order, but we tend to prepare to present it to our client, PNL as a first, so business overview, why the business increase or decrease during the analysis period? And, then we present the PNL, overview. So, we, go in details to the PNL in order to understand, again. So, in the business overview, we tend to describe the top line, and then we, we give to our client, an insight on the full PNL and then the quality of earnings where we analyze the adjustment on EBITDA. And then we start with the balance sheet section. So, balance sheet overview and then adjust the working capital and adjusted net debt. So this is the order of our standard project.</p>
12	<p>INT.: Right. And the final output, is...</p>
13	<p>S4: A PPT. PowerPoint.</p>
14	<p>INT.: I am sorry. We prepare a PowerPoint, and then we give to our client a PDF. Okay. Editable PDF, in order to be sure that, and sometimes the client can ask to have, the data book so in Excel file, with our analysis. But that is it. This is our output. And then we can help them in the second phase where they are going that where they negotiate with the counterpart, the SPA, the share, and purchase agreement. Yes. And in that phase we need to analyze the financial definition. So how the SPA define the EBITDA net financial position, what, the rep and warrants. So, the representation and warranties provided by the bidders and the sellers and then the indemnities, then the that the potential buyers ask to the seller and so on in order to cover potential liabilities that may arise in the future. So, this is our, our effort in an M&A process.</p>

15	<p>INT.: All right. All right. Perfect. This helps a lot., so now that we have the process, maybe you can comment a little bit on pain points. So maybe before I can clarify what pain points are within my work is, some type of challenge that is either just challenging by itself or, especially time consuming or, maybe done analog or not yet digitized or just plain inefficient, but it does not necessarily need to be bad. So, if you can comment on any. Yes, any task, any, any points, during the process that are. Yes, that are crucial, that are painful, that are challenging or positive depending on how you see them.</p>
16	<p>S4: So, if you are asking me which part of our standard project can be, time consuming or can create, inefficiencies, I, I must say that in Italy we have a problem with the,. We are obtaining the information from our client, from our from the target companies, because the majority of, company in Italy are small or mid-size. So, the financial department tend to be understaffed. And so, our request can be very extensive and very, very well, so very heavy in terms of effort that we request to the, the financial department. And so, it, it, it can, be very painful for our work in terms of budget and effort and the team management and so on. So, and the, the efficiency of the financial department of the target company can determine also, the limitations in, to our work, because at the end of the day, we need to present our project, our report, and in our report. So, we have a scope of work. We say we agree the scope of work with the client and say, okay, guys, we can do a, b, c, d, e, f, z. But if the target company do not provide BNC, we need to specify in our report that we present our report except BNC, because the target company did not provide us with the information that we need to, to cover the full scope of work. So. The. This can be a very, very, point of inefficiency. But what I am thinking about, in terms of your work, blockchain and tokenization, I do not know very well this word I, I invested years ago in, in some coins, in some token, but it is my, my, my knowledge of the, of the blockchain and token is quite limited. I know that in our, our world, in M&A world, the blockchain could help. I do not know maybe in us they started you for sure. You are, very well prepared than me, but, more prepared than me. But I think that, blockchain can helps , more in the, the in the execution of the SPA, the when the companies need to, execute the, the SPA, the blockchain could guarantee the, the two parties to be, at the closing that the contract, is executed in terms of payments and in terms of, warranties and in terms of the.</p>

This is what I know. So, my, my, my knowledge is very limited. I do not know, I am not aware about the implementation of blockchain in the financial due diligence process, but it is what I know.

17

INT.: Yes. I mean that is good. And the main reason we are here today is to mostly talk about the financial due diligence side of things. So maybe if I can give a short introduction., yes. Blockchain. So, what makes it special basically are, a set of things. The main thing is, is, decentralized, network. So, it is not running on one centralized database. It is consisting of multiple machines, computers, usually in a P2P, P2P network. And the fact is that every node within that network has a full copy of all records ever recorded. And in order to add a block to the chain. So basically, yes, to add another transaction or another record to the database, you need the confirmation of all the nodes. So, all the nodes are basically checking. Okay. Is, all the records the same. And is this new record written on a part of the database that is validated by all the other nodes? So basically, if you do not control the majority of the nodes, you cannot edit the chain, which virtually makes all the data and records on the chain, interoperable. That is what they call it. So, it is basically you cannot change anything. At the same time, depending on the type of blockchain, everybody can see the contents without knowing who is the person behind it, unless obviously It is disclosed and so on. But generally, it gives you a very secure way or a very verifiable way to see whether the data is valid and whether it has been originated by somebody with the authority to do so. So, in terms of, financial due diligence and, I am going to take some of the contents I had with the other interviews. Now, I think, and this is what I learned now through the work so far, I think that this would be even slightly more useful in audit than in due diligence, because as far as I understand, you are just, well, due diligence. Financial due diligence is just more or less assume the financial data they get is correct, especially if it is audited. I mean, there is I am sure there will be some cases with little firms that are not audited where you need to get the data yourself. But in general, I am assuming you just take the data for granted and just asse that working with this is fine. So, in terms of potential benefits of blockchain systems, I think it could be more from an audit side of things, because there is less analysis and more emphasis on data validity, actuality and so on. Yes. Another thing that has been, said now by three of the interviews I had so far, the other experts said that more generally,

	any innovation that makes data more reliable in terms of validity, actuality, originality, and all that that matters, would generally be helping or improving financial due diligence performance. Can you comment on this a little bit?
18	S4: , so our work has said before, based, substantially in,. Statutory financial statements information, management account information and trial balances. So,. Our work starts from an assumption that the data that we received are correct, are presented well and are reconciled with the statutory provisions. So, our first step is to verify that the trial balance we received are reconciled with the statutory financial statement approved by shareholders meeting. If it is not, if it is, if it is not true, we need to ask back to the target to receive the same set of data that allow us to reconcile the trial balance with the statutory financial statement. So, first step. If the trial balance, if the company is an in an audited company, we...So we specify to our client that our work is not an audit is.
19	We cannot perform audit procedure before starting our work. So, first of all, we clarify to our client that, due diligence is not an audit.
20	However, when we perform our analysis, we tend to verify. Also, I let me say, at least for if we if we encounter certain big error accounting error, of course, we raise at the end and say to our clients: “Hey guys, we have a problem, we tend to perform maybe in, in an audited company, cut off procedures to verify the sales. Or we ask for bank reconciliation to verify that the cash is, is correctly accounted for. But that is it. We do not perform analysis on the risk management. We do not perform analysis on the, all the account., so we based on information we received, and of course, if a company, if a target company is audited for us is a is better because of course, the data are correct, because at the end of the day, our clients want to buy the target. And if he they are seeing two numbers that are incorrect, they have a problem. And we have a problem in performing analysis. So of course, the basis of preparation of our work should be as more consistent as we as it possible. So.. (..) So of course, if, we, if we have, consistent data, if we have reconciled data, our work is very, very, helped. So, we It is very It is easier to analyze a reconciled data, audited data. And of course, especially for small and mid-companies,

	<p>there are also problems in reconcile management account to financial statement management account help us to understand better the business because of course management accounts are kept by the company in order to, to manage to manage the business, to see maybe to have the sales by business line to, be a sales by geography, by client. And these information are very helpful for our client. And we need to analyze that, the majority of time this statistics are not reconciled or reconciled with the financial statement. And this is an area that the auditor, that that the auditor does not matter the management account and, just, they look for, they look at the financial statement only and our work based on both. So, we are interested that the statutory financial statement are audited, and the data are consistent. But also, we need to reconcile management account with the financial statements. So, long, long story short, if the if we analyze the target company audited with management account reconcile with financial statement, our work is easy. Or at least sorry, not easy, but it is, we save a lot of time. A lot of time. If we have at the opposite, a company and only unaudited., with management account does not reconcile with the statutory financial statement. Our work can be very, very painful.</p>
21	<p>INT.: And in this case, you would... you would need to do it right?</p>
22	<p>S4: Yes. I need to do that. I need to reconcile. I need to provide at least,. If something is impossible, we cannot provide the impossible. But of course, our client ask for us for the best effort we can do in order to present consistent data. Because at the end of the day, they. They need to spend money to buy something that they understand. If they do not understand the company, they cannot, present an offer. And so, the pressure is very high, especially in the situation where we + find, an audited company with management account and reconcile with statutory financial statements. So, they are very low quality. And our and the output of our work, of offshore is, affected by that. But at the end of the day, we will say our client, hey, guys, our, scope of work and cannot be, covered because we have this limitation and reconcile data and, and so, but that can be a red flag. So, a deal breaker. So, it is very important to have a consistent data. And of course,</p>

	<p>maybe in this case, the blockchain, I do not know how this can help the, the audit procedure, but if it is something that, can help to have better quality information offshore, we will have we would have, a better, a better,. What a better situation where we work.</p>
23	<p>INT.: Okay, I have. two follow ups on that. So, the first one refers to, data collection. So, you said in the case that you have to get some data from management or whatever., do you do this? How do how is it done? Is it digitally or, via email or.</p>
24	<p>S4:, the situation can be varying a lot from company to company, but the standard situation is that we receive the, the access to a VDR public VDR. Yes. Like, I do not know, ideals, like, a lot of VDR that, even Google Drive can be treated VDR. But of course, the more professional VDR, are more reliable in terms of documentation., they provide the information about the app, upload data. If the data has been changed in the period, if the so. But at the end of the day, if you want to know about the exchange of files, it happens in the VDR. Okay. The target company upload the data in VDR, and we download from the VDR.</p>
25	<p>INT.: Okay. But as far as I understand correctly, it is, a room where data is pushed into and it is not, it does not work on a call basis. So, you as due diligence, performer you do not have the possibility to pull docents out of the system. It is just what has been uploaded there is there. And whatever else you need; you need to ask for it or write an email. Right?</p>
26	<p>S4: Yes., usually we prepare the, this this docent that is called information request list. No. Where we, we prepare a list of docents that we need to cover our scope of work agreed with the client. So, if our scope of work is that we need this information to cover it, and, and there is also a Q&A session, or expert session. So, a lot of sessions to clarify the context of, of the business, the context of certain</p>

	<p>situations. But the first, first step is to send to them the info request list. The target management prepared all the information we need, and then they upload batch by batch into VDR. And that can, yes, that is the standard process.</p>
27	<p>INT.: okay. That is good. I have one last question, and we can move to the next topic. Maybe,. So, in terms of, yes, in terms of data, actuality, how important is it that docents are up to date or let us say recent? I mean, in terms of financials, I am thinking depending on the company and the legislation, they have their earnings, quarterly or in Germany It is yearly. It depends., do you use those numbers? Do you get more, let us say, in between earnings numbers? Because what I am trying to get at is if you if you were to have your whole accounting on the blockchain, you would virtually not really need audit anymore because it audits itself. It can literally through computational trust, see whether a transaction can be like fruitful and valid or whether it is fraud. So, if you had that you could technically, pull out a balance sheet every day because all the transactions would always be there and always be automatically validated if they are valid. So, you would get a more, up to date or more close to real time, snapshot of financials in general. Is that something that would help, or are you saying, since we are, since it is like the time horizon, it is okay.</p>
28	<p>S4: Of course, it could be very, very, very, very helpful because the so, speaking with you can help me to understand what can be, useful, but, for you, but, yes, of course, our request, cover, usually the intra the intra annual, intra yearly, data. So of course, we, usually we ask for monthly or quarterly data, because it helps us to understand better the evolution of sales in terms of PNL, and, but also the information, monthly or quarterly can help us to understand any seasonality of working capital, which can reflect in a, in a, in a price impact. So, usually what we see,, including the, the, listed company, of course, but in the, in the majority of the company, see, they do not prepare intra annual, intra yearly, data. Of course, they have yearly data. And, for the majority of time, this is prepared, the statutory financial statements are prepared six months after the year end. So, we constantly work in the, in a, in a, in a delay situation.. And, of course, if the data, especially in the UK and the US, they tend to use also the, the, the daily information when available, of course, because the working capital can swing day by day and if they need to put the numbers in the adjustment of the price, they would be they want to be sure that</p>

	<p>the adjustment is more as more precise as they can. So, if, of course, if we have daily information is the best option, and then if we have monthly information, a second best, quarterly information, third best. And the worst situation is when they do not prepare, intra yearly information at all. And so, in that case, we need to work on the,. Share information because if you work on the bank accounts, information that of course they can be, they can provide that in a monthly basis because, they can download by the home banking, the, the bank statement. And then we, we, we start from the bank account situation to reflect the working capital situation. But it is, it is not the best option to analyze the working capital. So of course, if blockchain can help in having a, a daily or monthly information, as more accurate as possible, it would be very helpful for our work.</p>
29	<p>INT.: Okay. So. Thank you for now.. I am going to. I do not know if, if you had the time to have a look at it. I am going to share the slides. I also sent you, just to summarize the advantages that I see within blockchain., you should see a slide now.</p>
30	<p>S4: Yes.</p>
31	<p>INT.: All right, let me just enhance the size a bit. Okay. So, as you can see here, my work so far and the interviews. Oops. Can you read this? Because it is gotten all blurry on my side.</p>
32	<p>S4: I can read the. Okay. No. It is okay. Yes.</p>

33

INT.: so there are four main., so far I have identified four main areas where I think that that the innovation could actually be beneficial., they are mainly security. I explained a little bit earlier that due to decentralization, it is really hard to change data on the network. So that is the security aspect. Also, data quality., we spoke a little bit about, blockchain is generally making sure or allowing to make sure that data is original valid., has been presented by an authority that is allowed to do so and so on. So that is the whole data quality aspect as well, with, the real time analytics that could potentially be, I mean, it does not only because you have a blockchain, you necessarily have real time analytics, but it could lead to that. So that is another, advantage in terms of data quality., accessibility, is another one because, as far as I am concerned, I feel that the information asymmetry and M&A is fairly big, especially depending, on the buyer as well. So, if the buyer or the seller, sorry, if the seller wants to sell, he or she has multiple ways to create their sell story, let us say. And that might not necessarily represent all the information in a fair way. I mean, make sense? And with blockchain, you can somehow counter that a little bit because it is generally more transparent. I mean, we are assuming this is a disclosed public blockchain and so on., another thing in terms of accessibility is that blockchain allows for fractional ownership. But I do not think that is necessarily important in a due diligence scenario. And lastly, the efficiency aspect, I mean, to be fully honest, you do not need a blockchain for automation, but the security aspects of a blockchain paired with automation might make it more reliable and more safe than other so far existing automation tools. So, in terms of these four aspects, maybe if you could comment a little bit on, which ones are maybe important to your work, where you are saying, well, we already have this, whatever comes to mind in terms of these, these four dimensions, would be great.

34

S4: Of course.. I will say that for sure. Real time analytics could be very, very helpful. As per what we said before, and of course, all the security section, because is the is the core of the blockchain, function. So of course, if the data are, immutable, if the data are, correct and consistent throughout the time, and if we have the possibility to have real time data, it would be very, very helpful for, for the due diligence process and also the, the, the two parties, the seller and the bidders, in order to have a consistent data set to analyze and, of course, the diligence, Is more. Through, I do not know. Yes. Fair and true. Okay. And in terms of efficiency in the accessibility... I cannot see, maybe

	<p>in the in the second step, when the SPA should be executed, the when the at the closing, there is, there is the exchange of the shares., against the cash and of course, maybe the smart contracts can be very useful in this situation. And, I think, and the fractional ownership, what is the fractional ownership. So....</p>
35	<p>INT.: Well.</p>
36	<p>INT.: So, this is more of a subpart, to making a real-life example. I do not know if you have heard of Block Square. It is real estate platform. So, they, they buy and sell real estate. And what they basically do is, they take House A and they put House A on the blockchain, but instead of, making one coin for House A that is worth 1 million, they make 100 coins that are all a part of House A, and that allows for, to buy a part of House A for not 1 million, but maybe only three coins. So, you so you do not have to buy the, the full million. And therefore, you can have investors that are usually more retail investors or let us say smaller money can suddenly invest in investments or investment opportunities, investment classes that they couldn't before because of their investment threshold. So, the idea between fractional ownership is that through fractionalizing assets, on a blockchain, you can make sure that. You have your part of the value of the asset and it is, yes, it is just a more secure way of splitting, basically, ownership. And that is proven and recorded on the blockchain. So that is, I think it is more interesting maybe in terms of when assets are sold, maybe in terms of, I do not know if in M&A there is also, asset purchases for that. It could be maybe a use case, but this, this is more, this was more a note for me depending on depending on the person I sit with. But yes, in general, as far as I can tell, the, the huge or the, the possible benefits you, you see, are clearly in data quality and the security aspects, the whole transparency thing might be an addition, but as far as I know, when both sides are honest and want to go through with the deal is generally not a major problem to get the information or to have, to have the information exchanged. Right?</p>

37	<p>INT.: Okay. So, I think that is it for that., I have another small topic, but I think we already touched it, but still going to touch it., are there any sensible tasks that come to mind during the financial due diligence for me?, just to clarify, sensible task can be two things. It can be either a task that, has a crucial impact on the overall due diligence or, some type of tasks that, if performed badly on purpose or by accident, can somehow, yes, bear risk for fraud or for, let us say things you do not want. does anything come to mind in terms of yes, sensible task or critical tasks? , and if yes, how are they performed. Can you comment a little bit on them.</p>
38	<p>S4: Quite difficult because our work is not regulated as the audit. So, it is quite difficult to encounter a fraud risk in our work, unless we decide to agree with the, the seller and we present to our client, that is the bidder, false data, but.</p>
39	<p>INT.: But could this technically happen?</p>
40	<p>S4: No, no, no, it cannot be because we are responsible for the output of our work. So, the engagement letter, the engagement contract, specify that we are responsible for a lot of things. And so, we are bound to our client. We cannot speak about the project within, our firm, with our with other colleagues who accept, the team and the engagement team, of course. And so, we have a sort of, China walls that, avoid to, especially for the listed companies when we work for listed company or on listed company, there are a lot of China walls that, avoid to, data leaks. And, yes, we are responsible for a lot, a lot of things because, of course, we manage the sensible data. But.... Of course, we use the professional diligence in order to perform our work, but can happen that, we cannot perform.. (..) I did not see any situation like that. But theoretically, if we do not, prepare a good job because, of negligence or something else, we can be, sued by our clients.</p>

41	<p>INT.: Makes sense because at the end of the day, you do not. This is heavily trusting based business, I would say. And if you if you lose your trust with a client, especially with the name that you have, yes, that might not be the idea to go with.</p>
42	<p>S4: Exactly.</p>
43	<p>S4: And consider that our work is based on the on the reputation mainly. So, if we do a bad job,. Apart the, the eastern problem for a suit, maybe from our client. Our reputation is damaged, and we lose a lot of, business. Yes. So, the damage is huge in our work. So, every company have, I speak about this for the before. So, in our work, the name is essential. And if you, do bad jobs, the market is very, very, very small. And the client speak, and you risk doing not work with the important clients in the future because your name is, damaged. So, we try to do our best effort every time in order to be sure that the name, is not damaged and critically.</p>
44	<p>INT.: Okay. So yes, I mean, it makes sense. I was just, trying to figure out whether there are any, any steps where you say, mm, for example, I do not know, assuming you have an SME and you do not have prepared, due diligence nor audited records, so you kind of have to go into the Excel sheets and get all that together. And for example, for me that would have been a sensible task because it could be that you mistype a number and I do not know, miss a zero in the Excel, which then turns out to be a major problem. So maybe more thinking in terms of. Systems and data collection, and less in terms of, how you perform the analysis. Because in the end of the day, I think we can both agree that the professional will not be rationalized away from all this. I think the real benefit in this technology lies more in taking away annoying, tedious tasks like data collection, like verification, making sure everything's original, making sure the right persons have access, but it will never perform the analysis for you, at least not in a five 5 to 15 next years I think.</p>

45	<p>S4: Maybe with the artificial intelligence plus blockchain. Okay</p>
46	<p>INT.: One day maybe. Okay. All right., so much for the sensible task. I do not have much more., maybe before we go into the last part, I have one little question. I have gotten the notion from our talk. Now and now thinking about the other interviews as well, that., the non-enterprise clients. So, the because the enterprise ones are usually all audited and usually all audited by big four. So, there is a little margin for error within the financial data. But as far as I understood now the s let us say S and M companies that. More rarely are audited and usually have smaller financial departments. So, I take it is harder. Your job is harder in this realm, so maybe the whole innovation would be more useful for smaller and mid companies where the data quality and just the data availability in general is worse. I mean, did I get this right? Or can you comment on where you see the biggest potential?</p>
47	<p>S4: Yes...</p>
48	<p>S4: I think so, especially in the analytic company, because as big as the company is if they want to perform. In a good way. They need to have all data in order. So especially if it is a multinational company with a lot of divisions, with a lot of, complexity to manage the data, they tend to have a good ERP, a good BI and a structured the financial department and the controlling department and so on. So, the information tend to be more accurate than when you need to speak with the SME company. They tend to be understaffed. Not every time. But, as small as the company is, as high. The problem is in terms of data quality, this is not a golden rule, but it is something that we observe., of course, there is some exceptions of, well-kept company also for very small company, with a structured department and so on. But usually we, we tend to see that, the smaller the company is, as much as higher. The problem is in terms of data quality.</p>

49	<p>INT.: All right, I have, one little, quick fire round about the assumptions I made in the pdf I showed you. And after that, we are through. I would ask you, maybe you can already think of that., if you have any case in mind, I do not need to name anything, but, any example you could give with the financial due diligence did not go well. Or if you have heard of one, I mean, does not need to be from your experience, but, you can maybe think about that for a second., in between, I have you should see them on my screen., six assumptions that I, Yes, derived from my work so far. And then, try to validate, try to negate, depending on whatever it is., so if you could maybe comment on each of the sentences from 1 to 6, does not, does not need to be good nor bad. Just whatever comes to mind., does it resonate? Does it not resonate and so on.</p>
50	<p>S4: Okay. Very quick, I sorry, but I have a hard stop at 12.</p>
51	<p>INT.: Yes. No problem.</p>
52	<p>S4.: so M&A transaction. Lengthy, lengthy, and somewhat ineffective.. (...) It depends. It is not., Full. True</p>
53	<p>INT.: Okay.</p>
54	<p>S4.: this is one of the most time consuming, therefore costly phases of the whole process. Yes. (..), I agree with this. Sentence. Especially bad, rushed or flawed financial decisions can lead to bad positive performance... Can my lead... Yes.</p>

55	S4: But obviously.
56	S4: It is not. It is hard to tell whether it will be the only reason. So that is why I say it can., but it has the potential to influence, let us say maybe that is a bit.
57	S4: Yes, maybe I know about this due diligence performed by one of the big four for one, one of, one of quite big, healthcare company, Italian, Italian, French healthcare company. And, the financial due diligence, showed, a better situation of what the, the, the, the buyer found when they enter and that it quite it was, it was, yes.. .
58	S4: It was a big thing.
59	S4: In the news, difficult.
60	S4: To manage this situation because they have financing to buy them. So, the bank asks for clarification. And so, it could be yes, institutions have recognized blockchain technology's potential and start implementing use cases to address. No. (..) I do not know., I do not know. I know that we have a blockchain department in UI, I think at the global level, but I do not know, about what they are doing or what their work can impact our day to. Day-by-day activities.

61	INT.: Do you know from the other, from the big four, whether they have developments or at least, like your bureau or. If not, it is not.
62	S4: I do not know. I am sorry.
63	INT.: No worries, no worries.
64	S4: In traditional accounting, auditing data and records can be tampered with. The. Which in turn enables accounting fraud. (..), yes.
65	S4: Yes.
66	S4: I do not think I am not thinking only in terms of fraud, but also in terms of negligence or, simple mistakes.
67	S1: Yes, it does not necessarily be. Yes, on purpose in.
68	S4: Active fraud maybe. Yes. But it is something that can be translated into a very big problem for the board of directors because they are responsible for the numbers. And of course, even a simple mistakes can be translated into, some, fraud accusations. Allegations. And I am thinking about also in terms of, tax, because also the tax authority can rely on right number if the blockchain validator nodes and all

	<p>data. So, it is something that can help. Also, the tax authority information asymmetry and lacking transparency can impact M&A deals negatively. Yes of course this is 100% true.</p>
69	<p>S4: All right. Good.</p>
70	<p>INT.: That is it for my side. I got the notion you have to go quickly. So, please feel free.</p>
71	<p>S4: Sorry.</p>
72	<p>INT.: No worries, no worries., just, two final questions. Maybe, they are not content wise., first of all, would you be fine if I have any follow up question that I write you an email or on LinkedIn or something like that?</p>
73	<p>S4: Yes.</p>
74	<p>INT.: Okay. And the second one is, if you have anything that wants, that needs to be anonymized, the video will not be shown to any professors. It is just a transcript. But if there is anything you want me to take out or anything, anything you want to comment on, let me know. I am planning to hand in the thesis on February 12th, and I would send you a copy on February 12th. if you do not want the full copy, I can, try to make a key insight, summary, but, yes, that is my next steps.</p>

75	S4: Very interesting. I would like to read the. Sure. Very interesting.
76	INT.: I will provide you a copy.
77	S4: Thank you very much.
78	S4: All right. Thanks to.
79	INT.: You. You took the time, and it helped me a lot. So, thanks again. And. Yes. Have a good day.
80	S4: Good luck with your thesis. And catch up later if you need more clarification about something that I said.
81	INT: Of course. Thank you.
82	INT.: Thank you. I will let you know. Bye.
83	S4: Bye.

Appendix F: Transcript Interview No. 5 (S5, 26.01.2024)

1	<p>INT.: I do not know. Okay, so now we are back, I started the record. So, for the record, are you still okay with being recorded for the purpose of this master thesis interview?</p>
2	<p>S5: All right. Perfect.</p>
3	<p>INT.: Okay. So welcome, thanks for making the time. I know time is the essence for most of us these days, maybe to start off, we can try with a little introduction. Maybe you can provide some information about you, what you do, how your connection is to M&A and due diligence, what you have covered, some general experience, maybe to start with.</p>
4	<p>S5: Sure. No worries. Yes. So, happy to be here., I started, as a student in, economics and business administration, in the CEMs program and Indiana, after that, I have been a strategy consultant, for around ten years, I would say. And out of those, definitely spent like 3 or 4, in, telecom project. And many of those projects were actually related to or actual due diligence projects, mostly covering the commercial diligence part, which partly had a financial diligence part included in it. So really, building the business cases and then validating the numbers and all that that we got from the client. (..), right. And yes, at mm1, I am no longer doing the topic. My experience is a bit older. (..) Coming up. All right. Perfect, perfect.</p>

5	<p>INT.: okay, then maybe to start off with, regarding the due diligence projects that had, some connection to financial due diligence, can you explain in a bit more detail and a bit more generic way what you had to do, where the data came from? Just comment out the process a little bit.</p>
6	<p>S5: Right. So. So back when we did it, the data rooms were quite new. I know that by now, it is normally a data room where, all the input data really comes from. Before that, it was just folders, emails, all that stuff, so once we had the data, we normally build our own business case. I mean, we had some templates that we could use, and then, adjust to the client where we kind of try to replicate the data we got from the client, to see whether we understand what they are trying to do. Also, to see where the bell path, might come from, to really be the, the tricks they might have used, in preparing business cases in, specifically, forecasting numbers, obviously. So, it would be more or less, hopefully, Okay. Not always, but most of the time, and then the main task really was to find alternative sources outside of the company, then to, to validate, forecast market figures through,. Assumptions, think like that and really build your own view on that and give you an example, if when the client views or the target, I would say I use assumptions of, we want to increase our market share by 10%. And, but in the last ten years they've only been like shifts by 1 or 2% in the telco sector. That that was more the case. Because, yes, competition is tough and pretty much locked in. Everybody has a contract, so there is no new market to tap into almost, so, yes, those were the key jobs to find out what the assumptions are and then to challenge them.</p>
7	<p>INT.: Okay, regarding this, I have two follow up questions. First, the data where you said you have to somehow get it. It is nowadays usually in a data room. Did I get it right that this happens more in a push and pull basis. So basically, you have a list of requirements. You ask the requirements to your client in case they provide everything. You have no further questions in case they do not provide everything</p>

	<p>you have to go back and forth to get the data you need. And this is usually done in a let us say, manual way. Or how does the communication happen?</p>
8	<p>S5: I would say it depends to a certain degree. I mean, the more professional the whole thing is, specifically, if the buyer has the expertise, but also other partners like investment bank, etc. but sometimes they have like ready-made lists of things they need and the client required them to just put everything in, which never happens, obviously. So, there is always a back and forth at some point, and to varying degree depending on the client really and both in terms of data itself. I think that the one thing is to list complete is It is like a check mark everywhere that the one topic, but also It is a data provided consistent that even though the bigger problem in the end, because sometimes you get like 2X2 sheets, but the numbers do not add up, or different views and data, things like that. Typically, when it is bigger you have consolidated company and all those things. Then then it gets really complicated. Yes. So, I mean It is never finished. You always have a follow up question. That is for sure.</p>
9	<p>INT.: Okay. And, so sorry, I, I lost my train of thought one second, okay. So, the way I get it, the data is more or less there, but it is still somehow a hassle. It is, it is always involving some form of communication. Did you ever have the possibility to pull any data by yourself, or is there are there have you experienced any other cases where data was, available in self-service style?</p>
10	<p>S5.: not really. I mean. No, and I have not heard of it. I think it is really I mean, yes, okay. Everybody is secretive even there, they want to adjust the data before they send it to you, that is at least the experience that I had very often, yes. And he never gets, access to, like, SAP systems and things like that.</p>

11	<p>INT.: okay. Okay, great. And. The other question I had is this data is there or for now, let us stick to the financial data. Is it being this has this always been data that was audited and consolidated, or is it depends?, I mean, obviously it depends on the project. But just from your experience, does it how I have to be careful because I need to leave the questions formulated open. So, I have to rethink. I am sorry, how would you assess the, the level of, let us say trustworthiness of the data you get. Okay.</p>
12	<p>S5: so when you said audited, you mean, by an external auditor or somebody within the company had a look at it? Okay. Yes. No. I think normally the, the data request features audited data, that is for sure, and the thing on the top level, it is almost always audited. Yes, I mean, normally companies have the requirement anyways to audit and then you get the data. I think once you start drilling down, then the trustworthiness and also the reliability of the data decreases. Because when you say, okay, could you give us the set of data or the data from some shops, and things like that, then this deteriorates. And, what I said before this, matching those data points to the audited data point It is a huge hassle.</p>
13	<p>INT.: Okay, so the way I am making.</p>
14	<p>S5: Sure, it is good and.</p>
15	<p>INT.: The way I get it is, it is, it is, usually you can asse the data is correct or more or less correct on the on the highest level, but the more you drill down, the more potential there is for, let us say, divergences between the actual and the story that is told by accounting. Okay.</p>

16	S5: Exactly.
17	INT.: All right, good, good. So much for the for the general process I.
18	S5: Like it is not necessarily just to put that in perspective. I mean, it is not that somebody tries to screw you. It just is very then often and,. Yes. And it is difficult to match them. Somebody did that once in the past, but you never know, at the same time frame or how you can adjust it in between, to match the, the overall progress. Yes. Yes. I do not think It is really a bad faith, just.
19	INT.: Yes, yes, I wasn't, I wasn't, insinuating that that it was necessarily bad intentions, but still it gives, margin for error, even if it is not on purpose, that data could be tampered with or not consolidated. At that point, we would have issues, let us say.
20	S5: Yes, even not necessarily that, but just different systems, look at data from different perspectives and bringing them together. Again, it is just a completely simple and very many times. Yes I agree.
21	INT.: All right. So, going from this process we just spoke about, from your experience, what were the, well, it does not have to be good or bad, but to give an example, like pain points or, excruciating, time consuming tasks, maybe to analog tasks, but also what went really well? Where is the high degree of automation? If you could comment a little bit on your pain points, bottlenecks and also the positives, during this process, that would be helpful.

22	<p>S5: Experience is definitely one of those things where once you have the tools in place, I mean, we worked with Excel a lot back then, and from what I hear, it has not changed that much. But definitely been some improvements since then, which I do not know, but being prepared, really having your structure, your intention intended structure ready, ready when you start and help them up, obviously. Because then you can just, and you know, where to look for, and which, questions to ask. And you already have your data request ready, that is definitely best practice to be prepared. And, I mean, yes, use, experience consultants and, tools. That is definitely helping, the issues is. Well, we already had it, so I hope I do not... The biggest challenges. Yes, really matching data, really matching different sources, finding the right people as well to ask questions, specifically drill down questions. I think that is one of the biggest issues, so that people can have the right people to really answer the right questions. That is not simple, because, yes, then many are not prepared, for that. If you have. Good question. All right, what else? And I mean, human error is still,. On a big topic. I think I even wrote an account of one of the banks that were involved with made a mistake and, that accounted for like 200 million or something, and nobody realized. And that is because, I had a question about something else, and we were like, hey, this can work somehow. Something does not fit. And we checked and found it. Yes, but if we did not have this question by chance, it might have been the final result, actually. So that is it sounds crazy, but it was the case. Yes. All right.</p>
23	<p>INT.: So, any kind of, mechanism that could, let us say, double check in a way, is this sensible and make this does it make sense to, in this case, spend 200 million on something, that that would also be helpful. I, I kind of get.</p>
24	<p>S5: Absolutely. Yes.</p>

25	<p>INT.: Okay. I have a follow up, in terms of, matching the data. So, from, from what I hear from previous interviews, and, like, fully financial due diligence experts is, basically what they say is anything that can improve the data accuracy, the validity or the, like the originality, so, so to speak, are we sure this is the newest docent? What? So and so on and so forth, or everything that in that case somehow improved these dimensions, ultimately also improves due diligence. And then in the latest step, financial due diligence as well, can you comment on this? Do you would you agree from a maybe more outsider perspective or, what is your experience in this?</p>
26	<p>S5: Absolutely, for sure. I mean, the example I just said goes into the same direction. Yes. Yes, really double checking, making sure that the data is valid, and you use the newest available data or. Maybe not even news available, but the news confirmed it. Yes. That is better. . . That is really something that that helps. And really the,. (.o this mix. And matching, I think is super important that anything that helps you, bring data together, make sure It is the same level we are talking about. It is the same, even currency, for example, or that. You know, that is the real example. I mean, you always have to take care. And are we talking about millions or thousands and things like that?, the. It is important that if you have something in the background, checking, for that I think helps a lot.</p>
27	<p>INT.: Yes, I agree. I mean, it just makes sense, I think from a less professional point of view, let us say, that the more real time, the more precise your data is, more reliable your data is. And if you are sure that the data comes from somebody who's actually allowed to create it, that should help business processes in general. I mean, that is my take this, how I see things, but I am glad that, business professionals are somehow, also seeing this.</p>
28	<p>S5: Yes.</p>

29	<p>INT.: All right, sorry.</p>
30	<p>S5: I think I lost you for a minute. Yes. I think the tunnel it just after. Yes. My point was that I am not sure that real time is actually the best, in the due diligence, it might be the best to make a business decision, but not necessarily in due diligence, because you cannot really match. You never have real time data on everything. Yes. And so, it is better to do that before is to have the latest data but reliable one. And that can be correlated to everything else in the company.</p>
31	<p>INT.: I mean, yes, I mean, for real time is, at least as of now, really hard to do, but you, I mean, with different systems, you could get, like, within a minute, real time data, supposedly, if everything would be.</p>
32	<p>S5: But not on everything. Yes, not on everything. Exactly.. It will never be a comprehensive data set, and I think that is really the point I was trying to make before as well, a lot that it is really about the comprehensive data and not the, the new, and that is why It is really tricky with your plan. I mean, obviously it would be the perfect thing in the future for sure, but I think we are still quite far off that.</p>
33	<p>INT.: Yes. Yes. I think, before quant computing, we are not there yet. All right, good. So now that we spoke about, let us say ineffective or effectiveness, I would like to move to tasks, that are crucial in a way. So, to explain this, maybe crucial for me, would be any task that is either affecting the total due diligence output, massively so, I do not know, 200 million in the wrong row. That would be done in a crucial task, in my opinion, but it can also be any, any task that is a bit susceptible for fraud. As we said before, it does not necessarily need to be fraud on purpose, but in any way accident or on purpose, a fraudulent activity. So, if you have any tasks in mind where you say,</p>

	I do not know, for any example, maybe a stupid one, the calculating the EBITDA, if that is done wrong, that would be terrible, to give an example. So, if any tasks or steps come to mind for this, dimension, please let me know.
34	S5: yes, I think it is I mean, that is obvious. I mean, that those quality checks within whatever tool you use to validate the data, that is for sure that that is one of those. I think the second one, which is even harder to tackle is assumptions. Whenever you for forecasting things like that, you have to do assumptions. And this is obviously always a big... [connection broke down]
35	What did you hear? It is always a big...
36	INT.: It is always a big and then nothing.
37	S5: Okay. Yes, it is always a big, topic on how you make the assumptions. Because you can make them just like, you know, ten maybe., or you have a huge, little business case behind it that really, tries to, get to more to have validity. Let us put it that way. It will never be 100%.. Right. Yes. We would all be millionaires, but that is really a big question. And it is very important that assumptions are taken seriously and diligently, and there is huge room for very bad, assumptions to very good assumptions. Everything in between. And obviously It is also a time frame. I mean, you have months you can do better assumptions if you have a few weeks or days. So yes, but this is definitely something that, make can make or break a business case and the validation or the validation basically, I mean, 1% in market value or market share, can make a huge difference. Okay.

38	<p>INT.: And these assumptions, I mean, they basically depend mostly on the data, I asse. So, data validity again becomes pretty important. But the generally it is done by a person. Right? I mean it is a person using It is his or her brain and then interpreting whatever number she or he sees. All right.</p>
39	<p>S5: Exactly. And obviously you have forecasting tools and there is a lot of algorithms that are trying to forecast stuff, but it is also based on other stuff. Yes, sure. I mean, you can make, when you just expect extrapolating is one thing, but really making bigger assumptions, specifically when you say, okay, we want our strategy is doing that and that and that by this strategy we think we will get to x, y that is always, an assumption. It is not extrapolated because it brings in new, completely new drivers. And those drivers are then based on other assumptions. Mm. Yes.</p>
40	<p>INT.: As usual.</p>
41	<p>S5: All right.</p>
42	<p>INT.:, good. I think that is the, the main topics I had on my, on my sheet, how well of known are you in the whole blockchain topics.</p>
43	<p>S5: Not too deeply into it. I mean, I know what blockchain is, what it does. Okay. Some use cases that have been tried out, but that is pretty much it. All right.</p>

44	<p>INT.: So maybe just, without giving you too much hints and, and, I mean, you know what this thesis is about, but, on top of that, maybe if you can, just from your mind, right off the head, speak and, tell us or tell me where you see, the advantages or so. Are there more in terms of, I do not know, security or more in terms of transparency? Where do you see the advantages and where do you see the use cases for, let us say, our world, the business world, M&A world in parentheses.</p>
45	<p>S5: Yes. I mean, I mean, it is not that simple, yes. Five years ago. Everything will be blockchain, but, yes, I think it is really the transparency on process. So, it is not really transparency on data, but transparency on process, because you can see who changed what and well, not why, but at least, I have a,. In German, it is "Revisionsicherheit" So, yes, it cannot be changed. So, you really know, even if somebody fucked up, you know who fucked up? Which is also already something that is good, so. So that is one thing. And. Yes, that. Probably the biggest thing. Yes. And you just see the changes and, you know, the, what has changed in the process. Yes, as I said, not too much of an expert. So that. Yes.</p>
46	<p>INT.: No, no, it is I mean, that is.</p>
47	<p>S5: Why I asked.</p>
48	<p>INT.: Right off the bat. Okay. Perfect, good, good. I have what I need for now. I have, six assumptions I am going to throw on the screen in a second, just basically, read their six. Yes, just read them 1 to 6, and, and comment on them if you can, if you cannot or, do not have</p>

	anything to say, yes. Do not. All right, all right. Just give me a second. So, you should see them on my screen now... when you can, please go ahead.
49	S5: As you like.
50	INT.: Can you read them, or should I make them bigger?
51	S5: No. That is fine. All right, yes. The first thing,. Honestly, I am not sure I mean it, honestly, the question definition, but I mean lengthy. All in all, yes. Probably yes. But I think by now the, specialists, are so good that they can do transactions over very quickly, actually. And in effect, if not sure. I mean, there are real specialists that are really good at that. Yes. Nothing else. So yes, I am not sure I would completely, agree to that. (..) And the second one. (4) I think that is even less so. Yes. I mean, I have seen due diligence is done in a month. I mean, like thirty people sitting all the days and nights, but still, that is what they paid for a lot.
52	INT.: A lot.
53	S5: Yes, yes. So, so it is I am not sure that it is really. It is work intensive, but not necessarily time consuming.
54	INT.: Okay. Still, thirty people would be relatively expensive, I am assuming, depending on where they.

55	S5: Absolutely, yes. I mean, the workload is huge, that is for sure, but you can parallelize it. You can cut it pretty short. Yes, it is getting expensive for sure, but the costly part I completely agree.
56	INT.: All right.
57	S5: but yes, for sure. I mean, if you if you buy a company based on wrong assumptions or that you can have, extremely high,.
58	INT.: Yes.
59	INT.: And?
60	S5: Let us look at.
61	S5: X for example.
62	S5.: Yes that is a perfect death. That took.

63	INT.: ...A moment.
64	S5: And I have no. ...
65	S5: ...Clue about the fourth one, okay.
66	INT.: Yes, yes. I mean, it is mostly big four oriented, just to see how the professional world is, because they are doing EY is doing a lot in blockchain, and I wanted to know how many professionals see or even notice that.
67	S5: Yes, I just do not.
68	INT.: Yes. No worries.
69	S5: Sure. And I agree with the fifth one. Yes, I think the more reliability you get, the more you, data is non. Adjustable. Non changeable.
70	S5 Yes.

71	INT.: un-tamperable.
72	S5: un-tamperable. Yes. Very nice. Yes. Exactly. I mean it is quite interesting that that is even accounting standards are going that way right. I mean in Austria we are allowed to keep only digital records of, checks for example. But only if you can prove that it, un-tamperable.
73	INT.: All right.
74	S5: Which is not simple because you need special systems for that. You cannot just put it in SharePoint because, yes, yes, we all know it.
75	INT.: But so, this is already done in Australia. Do you know how?
76	S5: There...
77	S5: ...are specialized systems that operate under quite expensive buy now we are actually thinking to do it for [Company Name], but we refrain from it so far, but it might actually change my mind when it gets more common and cheaper.
78	INT.: Do you have a name of a software for me just so I can read up on this?

79	S5: Not off the top of my head, but, if you check, search for that, definitely find something.
80	INT.: All right. I. Yes. All right.
81	INT.: , good. That is it, that was five and six, right?
82	S5: , that was five. I have not checked yet, to be honest, but might be one second.
83	INT.: I am trying to find it.
84	S5: Yes. I mean, for sure.
85	S5: Absolutely.
86	INT.: Yes. I mean, it sounds like a no brainer, but it is hard to, validate assumptions like these when you have never sat in due diligence and nobody's really willing to tell you what they do for 100K a year.

87	S5: Hahaha. Yes. No.
88	S5: It is true, 100?
89	S5: Well, yes.
90	INT.: Entry position let us say. Yes.
91	S5: Yes, exactly. No, you are right.
92	S5 No, but it is definitely one of the main jobs that you have to try to reduce the asymmetry for one side. And I mean transparency and this symmetry, the go hand in hand. But that is why you have to ask questions and, dig deep, and that takes time. And money.
93	INT.: Yes, usually it does. All right. Perfect. So that is it for the six statements. I have one last question that came to mind before I forget. so from what I, what I, what I heard now from our interview and from other interviews as well, and, and what my work has shown over the time is that I, I get the notion that the whole blockchain and tokenization topics are maybe even more important for the audit part than for the actual financial due diligence part, because the financial due diligence usually relies on already audited, consolidated, whatever reconciled data which is supposed to be true, whether it is true or not, does not matter. But, so what most of the professionals said so far is that they see more of a use for this technology within audit, not saying that there is no need for it in due diligence as well, but , that that

	they would argue the data validity and, and correctness is even more important there because it is a step that is before the actual sale or, acquisition of a company. yes. If you could comment on this, maybe.
94	S5: Yes, I mean, that sounds,. Sounds reasonable.. I could imagine that because, I mean, that is really the where the meat is, specifically the historical data, there no doubt. And the problem with assumptions is that often it is not encoded at all. It is just in some people said, so we are putting that on the blockchain is tricky, to say the least.
95	INT.: Ok, good to hear.
96	S5: Yes. So that sounds like a very reasonable assumption.
97	INT.: All right. Cool. Yes, if you do not have any questions for now, I would explain the, the next process steps. Just so you know, what is going on and where your answers are going, so. Yes. Do you have any questions for us?
98	S5: No. Okay.
99	INT.: So,. Thanks., yes, I am finishing my thesis, it just we just got a, extension for the for handing it in. It would have been the twelve, but it is now going to be the 24th, so it is in roughly a month. I have a couple of interviews left with techies, as I like to call them. and yes, this interview and all the others will be transcribed, the video will not be shown, and the MP3 will not be provided for the professor

	<p>university whatsoever. If they request it from me, which they should not. But if they do, I will ask you before providing them the data, general. Okay, nice. Perfect, generally, when the thesis is done, I would send you the full copy or just a shorter version, depending on if you are interested, if you want it. And. Yes, from my side. That is it for now.</p>
100	<p>S5: No. Of course.</p>
101	<p>S5:, send it to me, in a digital form would be good, and I can.</p>
102	<p>INT.: Yes. For sure. Yes, it'll be. It will be in a digital form.</p>
103	<p>INT.: We are not going to write the thesis about digitization and then come up with 100 printed pages.</p>
104	<p>S5: Okay.</p>
105	<p>INT.: That would be weird.</p>
106	<p>S5: Perfect.</p>

107	<p>INT.: All right. Cool. So last question. If I have any follow up questions, can I contact you? I mean, since we are relatively closely connected, this should be easy. Cool. Thanks. Well, then, thanks a lot. And, have a great evening. End of workday.</p>
108	<p>S5 Thanks. Yes, yes, yes.</p>
109	<p>S5: Me too. Yes. Good luck, it is, interesting topic. Yes. I am looking forward to the final results.</p>
110	<p>INT.: Yes. Me too. All right, all right. Thank you. Bye.</p>

Appendix G: Transcript Interview No. 6 (S6, 09.02.2024)

1	<p>INT.: Since this. (..) So. Okay, so it seems like the recording is up and running. So, once again for confirmation, are you okay with being recorded and that I use these contents for my master's thesis? Yes. That is fine. All right. Perfect. So welcome. Thanks again for making time. I know time is of the essence for most of us, so. Thanks., yes, I start maybe with a little introduction. I am Leo, I write my thesis on if and how blockchain technology can improve due diligence, especially financial due diligence in M&A context. So as far as I know, your blockchain expertise is more limited. So, you are here for the M&A side of things. Absolutely. Which is perfect, because it is really hard to get insights to the actual proceedings of M&A when you are not in one. So maybe to start off, you can, say a few sentences about you, what you are doing, what your experience in the M&A world is.</p>
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2	<p>S6: Yes.. Yes. My name is Finn Anderson. I am, Vice President in the [DAX-listed German Bank] Investment Banking team in [German City]. So, focusing on German clients broadly speaking, and I have been with the, with the bank for, roughly six, almost seven years. And I primarily focus on M&A, it is kind of broader coverage for, for the German speaking region, but it is mostly M&A, and also including some, exposure to ECM transactions. And it is, across all sectors. So, it is really a product focus, but it could be any client from industrials to health care, real estate, what have you. And, so we typically, yes, advise as the M&A advisor. So not in the financial due diligence itself, but our role is really to coordinate the process and, to advise on the overall transaction and coordinate the due diligence. I think that is how I would, put it.</p>
3	<p>INT.: All right. Thank you. So maybe we can start right there. So, with regard to the process, I mean, obviously depending on the type of transaction, the size and so on, multi control implications and so on. But generally speaking, can you detail out a generic due diligence process at least, yes. The basic steps, the big steps maybe, in what order they happen so that I just can. I do not know, compare this to what I have heard from the other experts.</p>
4	<p>S6: Yes. No, certainly. I mean, from a broader perspective of the M&A process, if you are I mean, it is mostly relevant probably for looking at buy side transactions, doing your own, due diligence and not the vendor due diligence on the sales side. So typically, I would say the first phase of the process, I mean, once you have signed NDAs with interested parties, then the outreach and so on, is really, sending out an information memorandum and giving, kind of a more limited number of parties, let us say 6 to 8 weeks could be for maybe, maybe 4 to 8 weeks, depending really on, how familiar these guys are, with the asset and how long it takes to digest, the, the information memorandum and you give them kind of, let us say, 6 to 8 weeks, before they submit, an indicative bid, which, contains mostly a value, brief description of who's actually, putting in the offer and, then some further details which are a bit more specific to the process, but , could , mostly also focus on, what is the strategy for the acquisition and, what actual due diligence requirements do you</p>

have? How long will you take to finalize your due diligence. So describing a bit what you actually need to get to a binding bid, in say 8 to 12 weeks' time and then, after a down selection, you would typically run a second phase of the process, which is, I would say the actual due diligence process, where then, ultimately with like 2 to 4, maybe five parties, I think It is hard to entertain more than, 4 or 5, because It is really intense for, for the company being sold, with those, you run the actual due diligence process until, binding bid. And from that point in time, it is, it is a bit fluid. How you proceed to signing, how long it takes, depends a bit on have parties actually finalized their due diligence ahead of the binding, but do they need some confirmatory due diligence, kind of super critical contracts, whatever that they have not been shown before submitting the binding bid. And then you proceed to signing and say anything between 1 or 2 days to, taking forever more or less. I mean, something like a month or two months, it could certainly drag on, depending on how. How good the competition is that the sell side has established in the process, and how keen actually the acquirers are, right? So, if it is not the most attractive assets, things can, can really take time, so that that is a bit the broader perspective of the M&A, process, where we would typically advise along all of these steps. And, I would say a typical due diligence process during the second phase, that consists of a number of more or less standard elements that you would expect to see, first thing is a management presentation, held by senior management focusing on what is the company do, what is their strategy for the company, how do they want to achieve their business plan? , so a bit less descriptive, but really what is the strategy going forward? Where do they want to go?, what is the opportunity in front of them?, and maybe what could they do together with the acquirer. Then the next element is, factbook or vendor due diligence reports. Sometimes you see extracts of these already distributed in phase one. If you want to educate people a bit more on the market, for example, you can have a commercial vendor due diligence that is typically prepared by someone like McKinsey, BCG, or any other kind of strategy consultant. And then you can have, either vendor due diligence report or effect book on financials, which is then typically prepared by someone like KPMG, PwC, one of these guys and also a tax, fact book, or legal, fact book, I think. Com It is quite common to have fact books in every process. Sometimes if it is a bit more. Complex, I would say. Then, it makes sense to have also vendor due diligences, which are a bit more like really taking a due diligence lens already, not just descriptive, but really, providing actual interested parties with an outside in view of due diligence, so it is, it is a bit broader or more. Yes, more. More comprehensive scope compared to a Factbook, and those are typically the key docents that you, get to review outside of the VDR, VDR is another really important point, where you

upload really all of the relevant documents along the company from the legal perspective, not just kind of the contracts with key customers and so on, but kind of every document on formation, incorporation and so on, then detailed financial data, which actually allows you to kind of build your own set of financial statements based on the actual trial balances of the company. So, kind of the most, more, or less most granular level, of information that is, that is available to the company. And, then it always depends a bit on what does the company do. But you could have a section on strategy, a section on commercial. You have a folder that covers HR, and I mean all of the functional areas that that you see in the company, that is typically how it is organized. And you would see all of the relevant documents, policies, employee lists. And this is really where, the due diligence advisors of the company dig in, review all of the documents, and. Kind of. Yes. I think the target is to really review every document to see if there is any finding that, could have a negative impact on, on the company going forward. Anything where you say, that reduces your, your price. But on the other hand, also obviously areas of synergies, so where you see opportunity to do something with, with the company, going forward and this is then done by the company itself, with people from typically across functions and then someone from or a team out of the strategy or M&A department of the respective company, those are involved in the VDR and that can actually be easily 50, 100 or even more kind of people that review all of these documents in the boardroom. And you should probably expect, depending on size of the company, that can easily be like ten thousands of pages of, documents, to, to review maybe even 100,000 pages or more, which is quite, quite a lot of kind of information to digest. And that is why you need advisors on, on all of the kind of different functions. And. Also, not only in I mean mostly it is international. So, you will need tax experts from various countries. You will need, accounting accountants from, from various countries that are actually able to review also the specific tax filings in each jurisdictions and, and so on. So, it is really a huge effort. And I think this is the most kind of time consuming, and painful, step of, of the due diligence because obviously you do not want to miss anything, but it is costly and takes really a lot of time. So, this is, this is really why it also takes that long to actually get, to signing in the end. And then to two more elements would be expert sessions, typically you have a basic set which is expert session on financials, one on tax, one on legal, commercial air IT strategy, business plan, you can to a certain extent, do that with advisors mostly. So those guys that were working on preparing the vendor due diligence materials or the fact books, they would typically run the first round of expert sessions, with interested parties. But sometimes it gets into such detail that they will obviously not be able to answer, all of the questions. And then you will need senior management to join, which

	would be the case in any strategy or business plan session, for example. But I think for a first session on, on legal tax, legal tax, and financials, typically the people who prepared all the fact books, they would be the first line of defense, so to say, to respond to these questions. And then lastly, there is Q&A and, and, in every process, every bidder is typically granted, certain restricted number of questions, on a weekly basis or overall, typically It is, it is a weekly limit or maybe even daily..
5	INT.: Welcome back.
6	S6: Sorry. That was the laptop that just died, can you hear me? Well, actually, yes. Yes, I hear perfectly fine. So, last, last thing I was just talking about is the, is the Q&A. So typically, I mean, you can have it multiple ways. It is either people sending Excel sheets, that is more the history. And, today It is more like, oh, it is so organized in the VDR that you, upload your questions and then, there is a process in the background where the other side is gathering answers across the team, and then place that back to you kind of once or twice a week, with a consolidated batch of answers. And typically, I would say people try to limit it at 25, 30 questions per week. But, depending on how long you plan for the actual second phase, probably without you would not get to assigning. I would say, without answering at least two, three hundred, separate questions. And if the question limit is tight, two hundred questions typically means 500 questions bundled to 200 questions. All right. So that that is a bit, the overall scope of, what is typically offered, from, from the sales side to, to a buyer in the due diligence process.
7	INT.: Thanks a lot. No, that was very helpful. I have a couple of follow ups, but I think I am going to push them back a little bit because the next topic I would like to talk about are pain points, time inefficient task and inefficient tasks in general. So maybe we can go straight into that for the VR. I have a couple of questions. Maybe for later, I'll note it, for myself and then go back to that, but yes, if you could, because I think it is quite fitting right now, if you could go in a little bit more on, yes. Pain points, challenges, tasks that are too, maybe

too analog, as you said, the ones that may, the questions that may be sent via Excel sheet or whatsoever. So, anything that comes to mind in terms of, potential bottlenecks, because the way I look at the whole thing is basically. And that is why it was interesting when you spoke of the docents to be checked, for example, on a blockchain, you do not necessarily need to check for authenticity and actuality of docents because it is proven by the computational system behind it. So, in that case, when I think of the docents in the VR, nobody would need to check for authenticity. But I do not know whether in the VR it is, granted that they are authentic, so it is hard for me to tell whether it would be an advantage. So, if you can find any. Yes. Pain points, especially time, time is of the essence. So especially tasks that take a long time that could be performed either automated or in a more efficient fashion. Anything that comes to mind in that with that regard?, yes. Regarding the process you just detailed out would be nice, obviously with a little focus on digital information, because that is the one I can use the best. I mean, it is really hard to visualize, HR relations tips for purely binary system.

8

S6: I think. I mean, I thought about it also a bit in advance on what might actually be the, the benefits. And I think for actually the acquirer it. All depends on what you are actually being delivered. Right? So, yes, I can imagine I am not an expert in blockchain, but I think if the target actually is very well advanced and having a digital strategy and, file management and, and so on, right. I think, while the review of the VDR is painful, I think the even more painful process is getting it all together. And obviously, we are already in a stage where you have a virtual data room, where you review all the docents, on screen. And there are still many colleagues around here who are used to physical data rooms. And I have also seen the physical data room, myself still, a few years ago for like, super critical docents. So I think we are actually already one step, further from, from kind of the era of actual physical docents being put in folders and then accountants, lawyers sitting in the same room for like 12 hours a day and reading physical docents and that that is how it used to be in the past, I am happy It is not like that anymore. But you can imagine that if we really decentralized organization like that is, operating in various countries and, does not really have a central management for legal contracts and, yes, I think especially on the contract side, imagine you have like, thousands of subsidiaries that are just companies that hold another company for tax efficiency reasons or whatever, because you have to have a subsidiary in each country where you operate. I mean, it is not entirely true, but larger organized nations tend to have

a lot of subsidiaries and having all of the kind of legal docents for these together, I think that is already a challenge. And, if you ask, one of the larger corporates in Germany, you will probably hear the answer. Look, I think for these set of companies, we would find what you are looking for. But they can tell you right away it will be impossible to have all the legal and incorporation docs for all of the subsidiaries where actually no one really remembers why they even exist, so I think that is, something where really also on the sell side.. Digitization and might be blockchain or whatever solution. But I think really a good strategy and implementation of centralizing data, which is otherwise only available kind of locally, or even physically, then I think that would help a lot. And. Then the question is really, how can you use that to give the right comfort?, that all of this is actually real, and I think that is that is one point, all of the docents being,. Being actually legit.. But the other, the other side is obviously what is in the docents. And this to a certain extent can probably be optimized if you, for example, look for certain keywords or, I think that this is all things that are right now are developing. Right. I review of, of docents that you can point people to. This looks actually critical. Maybe this is something to review, but I am quite sure no company would fully rely on that as of today, but rather want a lawyer to check all the docents. And I think the lawyers are also using tools, yes. For sure.

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INT.: And maybe just to clarify, I am not saying, that technology can replace advisors and legal clerks and so on. I am just saying that, maybe verifying that, a couple thousand docents are actually legit is not the best way to spend the salary of these people, that you usually are way more intelligent than checking docents. I mean, that is the approach, I mean, maybe I'll just share my screen for a second, so what I, what I like to say, or to show is that there are four dimensions in which I think it can help, and I think the most, the most obvious ones are the ones on the right side. So, data quality and accessibility, I think accessibility is what you meant with having the data centralized in one VDR. Okay. So that would, yes, that there is a lot of possibility to enhance, secure access to docents or to digital rooms in general with blockchain. Same goes for data quality by just the inherent nature of the blockchain. If you double book entry everything like an accounting, except It is not a human doing it, but a machine actually directly validating it. It gives you that higher level of security. Generally, the security aspect is there. But I am assuming I mean, I have never been in one that those VDRs, if they are not actually

	operating on a blockchain, which is happening, that they are pretty secure. I mean, it would surprise me to hear that, if one got hacked in your experience, but could be.
10	S6: I think there were actually cases of that, okay. That is one. So that really might be, one of one of the industry leading, data room providers. I think they had some, some issues with that. And I mean, obviously, I think they spent quite a lot of time and money on, on data security., but there is also like really, really critical data in there. Right, which would be of huge value to, to other parties. So, I can fully understand why, why this is actually becoming a target, and cybercrime or whatever. Yes for sure.
11	INT.: I mean, you can have very sensitive docents in there. And then for the efficiency part, I mean, I do not know how much into you are in the crypto world, but, basically this just stems from the, let us say, old hat argent that the new P2P network without the intermediary, obviously, I mean, kind of logically could be faster, more efficient in terms of transaction speed. To be honest, it is still less transactions per second as a bank could handle. So, we win some on the speed side per single transaction, where we lose some in the total transaction vole. So, the efficiency, part is, is more of a technical like the security aspect is more of a technical underlying thing. It does not necessarily need to be more efficient, but it allows for some processes that are more efficient, like smart contracts.
12	S6: , and probably less relevant from what I can tell in, in the due diligence process. Because once docents are actually gathered and verified, there is still a quite long period of reviewing them, and, I mean, in that regard, it is not really transactions happening, right? It is docents being uploaded to, to, let us say, shared drive. Right, with certain, ability to grant. Various level of access rights, but I think there is not much to do about really efficiency, and I mean, once you have the data, it just takes some time to upload it and to. Check that things are complete and so on. But it is not really a transactional yes thing.

13	<p>INT.: It is not a transaction in that sense. That is true. Yes. Okay. So those are basically the four key aspects. And I think the most interesting ones are the ones on the right. So basically, data quality how is data gathered and consolidated and also who can access it and how easily or how not easily. I mean yes. So, that is basically what I think you can do, yes. Then maybe to the towards the next topic, I have, one more and then the rest will be more or less an open discussion, what are, sensible tasks? So, for me, a sensible task is any task that has major influence on the output product. So, the Factbook or the report or whatsoever or tasks that, that allow for fraud does not necessarily mean that somebody does it deliberately. But the typical case of if somebody puts a zero here instead of the one, then maybe we will pay 20 million instead of five. The point that I am trying to find out here is, are there any tasks that are right now not either automated or being done digital? That could be because they are especially important. Or is this the reason why they are not done by computer or by machine? By code? Because they are that sensible.</p>
14	<p>S6: So. Yes. If you I think. (4) So maybe starting with what the actual output product is in the due diligence process. And that obviously depends on a bit company by company. And, if you are working with a strategic or with a financial investor, but generally everyone is preparing more or less a due diligence report, right?, which is an internal document that summarizes all of the findings, positive or negative?, and you would. I think what you see most often is that you organize it by a number of work streams. So, there is HR people from the company, and they write a report that could be anything from 2 to 50 pages, depending on how sophisticated companies, how large the target is. And then you see that across every kind of function, there is a report on it, there is a report on cybersecurity, on insurance, on intellectual property, sometimes these get grouped together because head of legal with his team does kind of everything. Or it is more kind of a broader organization where you have one guy for all of these also smaller topics, this is something that you internally.. And then typically you would have your accountant do a financial due diligence report, which is anything from 100 to 500 pages of summary of how do the financials look like, what did we find?, same on the legal side, same on the tech side. Often on the commercial side, I think if you are working with a strategic, I would do a lot of the commercial work themselves. But if you are working</p>

with a financial sponsors, they would typically work with one of the larger strategy consultants, so that is that is what they are after in the end. Right. The report that shows we have looked at everything, this is what we found. There is nothing that tells us, not to go ahead, with this. And then typically this is kind of summarized in, more. More crisp decision docent which is presented to the board, CEO, CFO, or the investment committee of a financial investor. Obviously, there is lots of stuff happening left and right, but this is kind of the key docents that you are actually working towards., so ultimately, it is all decided based on, beautified PowerPoint pages, that is what is happening?, and I think one critically. Thing with regards to value.. Obviously, you. Diligence. All of the past. Kind of bookings and the accounting system. And how do the historical numbers look like?, what contracts do we have in place, that you can all review and tick the boxes, that everything is there, and you did not find anything that seems to be wrong off, you might find. Let us say certain things you would want to deduct from your valuation., which is if there is kind of litigation is a classic example, if you think, tax authorities would see something differently than the seller has seen it the last few years, right, then, there is certain risk that you could find. And, then that becomes part of negotiations, and you typically deduct all of these findings from value, but it is. In most of the cases, it is rather like small things that add up to a certain amount. But every kind of little data point in itself is. Not peanuts., but, but I think in the grand scheme of things, all of these findings would not matter by themselves, but it can well be that you deduct, a decent amount, from, from the actual top line valuation based on the historic findings. But I think unless there is something that really kills the transaction.. Like, really huge legal risk, or you find out that there is one key customer that takes up 50% of the sales. And, I mean, that would scare everyone away right away, and you would typically see that before even going too deep into due diligence, but the actual. The actual value is something that,. Is more based on forward looking, let us say, data, and I think this is something that can less easily be verified or digitized, because it is just something that, if you want to be blunt, the management came up with. Yes. Yes, pretty much they are telling you, look, we are going to grow 10% next few years and margin is going to improve by x, y, z. And then, we take all, all this data on, on the bank side and together with the company, so our client work on the business plan and look what is actually the value. And this is really something that, yes, you look at historic data, but it is all more strategic, forward looking, can you verify the underlying assumptions?. For this business plan. Right. And do you believe, actually that they will be able to achieve what they project? And then I am really. Struggling to see how you can actually. Improve the due diligence, right? But because it is really something yes, you can verify each of

these assumptions in a sense, they tell you we are going to grow by 5% in Germany. And you look at the market report that tells you It is 5% for Germany. Okay. Tick the box. They grow in line with market. But I think it is just. It can get really, really granular. And there is no kind of easy cross check for all of the assumptions that management is making in the business plan. Right? So, you also have to apply a lot of a lot of judgment. And this is really, I think, the most critical task or value driver in the process, which is then less related to the pure financial due diligence on past numbers. But it is really understanding the strategy, challenging the management, and challenging all of the assumptions coming up with your own case, rebuilding it on your own, what would you asse for all of these kind of tiny data points that make up the entire business plan case? Because that is really where the valuation is, is based on. Right. And. Based on that, you derive a certain value or a range of values based on various methodologies, and probably that, we could discuss for hours, but , in the end, you would probably say this is the business plan, and this tells me we could pay a range from X to Y, for this asset. And. This is one element of what you are going to pay. And then there is another element, which is how much do you actually have to pay strategically? Do you want to pay up?, because you are actually, super keen to get the asset. Competition is tight. Or if that is not the case. And. All those things are really. It is part of the due diligence. But it is not actually checking ticking boxes, but it is really developing your own feeling for, for something. And. Finding. Yes. You have to really believe in what you see in front of you in terms of the business plan, because that is what you, what you actually pay for. You do not pay for what happened in the past, but you are paying for what you can do with the company in the future. And I think. Doing a mistake or believing in something that is unlikely to happen.. Maybe in hindsight, and you couldn't see it at the point where you actually do the transaction, but this is really where, where things,. Well, it really. The critical point is, are you actually overpaying or are you? Paying the right price. I think that is. (..) Yes. And that is the critical.

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INT.: Answer that you want at the end of the day. But maybe if we take us a little step back because, I agree, this is the this is what you want to get right in the end of the day, however, I think this is the last thing that will be done by a machine is I think it is very likely in our lifetime that it will stay human making that decision. Luckily, hopefully, at least in the next, let us say, five to 5 to 15 years, I do not know, I cannot see it happen earlier, but, to go a step back because all these assumption things really hard to do for machine and I would

	<p>not want it any way, but what are the maybe the steps before? I mean, we spoke a lot about, data gathering and data reconciliation so that, I mean, that plays into the decision in the end of the day, because based on how accurate your past details are. Yes, likely the more precise your future, will be. Yes. Are there any other, tasks with more regards to, let us say, digital?, yes. With, with some digital connections. So maybe I do not know who uploads the, the docents in the VDR. Is it a person. Is it, like a multi upload and somebody uploads just gigabytes of data or.</p>
16	<p>S6: It really depends on how the company is organized.. I think best case is that you have someone managing the project on the inside of the company, and that person knows where to go, to whom to speak, whom to speak to and, where to ask for certain data. And then that person actually just uploads it to the data room.. (..) I think often that is not the case. So, you have to, someone on the bank side who's advising has to find out, speaking to hundreds of people in the company. Not hundreds, but maybe like ten people., and check with them what is actually available. Where do you find these data? And obviously, for someone coming from the outside, it is really hard to tell somebody on the inside. What is the critical docents. Right. I have to be before the transaction, I typically have no clue what is the type of contracts. What is the critical docents really in this certain industry, of course, we have industry experts who can tell us, but every company is just slightly different to the other. And some companies do that very well from the inside. They know what they have done, other processes. So, they can already judge, look, this is critical. We need this set of docents, and then they gather it. But obviously it is a lot of discretion in selecting what is actually ultimately being uploaded to the VDR. And, then also It is one step to upload all of this, but then typically someone more senior would scroll through all of the docs, or at least the docent list to sign up, sign off on it, so it is a really, really painful process, and gathering it and reviewing it. And then one point, that that we have not talked about yet is redaction, yes.</p>
17	<p>INT.: That is fun.</p>

S6:, which is increasingly being optimized and I have to say It is starts working quite well in certain areas. So I think, for example, if you have a standardized contract, where the critical elements are always same spot on the page or it is always similar wording, then , I can actually help you a lot in Pre-defining where you have to take a look at and then you just confirm, okay, redact this, redact that. We like that next page, still a manual. Cross check, so to say. Right?, but you do not have to read every docent in full. I think that is again also on its most of these things I think are on the preparation side of things for the company being sold, where actually it can help to, to set up the VDR to, to review the docents to the redaction. And, being organized about your data internally, I think that that just helps.. Obviously, historical financials are critical. Element of the due diligence, and. One thing is validating the underlying data. And I think that is just, very challenging. And where you often see, I mean, not often, but I think if there is some kind of fraud, it is more because someone has been doing fancy stuff with historical financials, with things like Wirecard. But, I mean, that is, that is an example, but it could take similar ways also in an M&A transaction, like if CFO just, does some fancy bookings, which actually did not happen, financials look better. Okay. And I think it is really hard to identify such things if they are done by someone very, very senior in the organization because of course. You. You might look at the list of transactions, which probably is going to be uploaded to an Excel sheet and it tells you we have sold X to customer, whatever, for €100 and then €100 here and there. And it ss up. But. You cannot. And you are probably also not allowed to speak to all of these customers to check with them. Hey, did you actually buy this from them? Did this transaction actually happen? So, you somewhat have to believe in what you are being presented is accurate, right? So that no one I mean there might be smaller errors. I think that is not going to change the grand scheme of things. And all of these, let us call it smaller errors is, is, stuff that also the accountants, then deal with a lot, because their job is actually to see is there anything that we need to correct and presenting all of this underlying data? Right, is this booking whether something that happened in 2022 or is it actually right to be in 2023? And then you have all of these adjustments that tell you, look, maybe the reported numbers, if you just take everything from the system for granted, that looks like this, but we think it should actually look like this, because this belongs here and this belongs there. And, on a normalized basis, this would rather be that. And then you get kind of, a picture of the financials, there is a quality of earnings report that tells you, look, the reported, EBITDA result is ten, but we believe in 2023 it has been eleven. And then it is up to the buyer side to go all through

all of these. Yes. Bookings again and check. Yes. We believe also It is eleven maybe It is ten and a half and. Typically this is really also It is a process of judgment, right. There is no not really a right or wrong. There is a lot of accounting choices, which are technically possible, and some companies do things one way. Other companies would do it the other way. And there is a lot of debate on what is the actual underlying earnings, not so much on top line, but really what is what is the EBITDA?, what is the margin? And this can have an impact on, on valuation. Like if you say, look, you told us your margin has been 20% for the past few years, and your business plan also says 20%. But we believe the actual margin is 15% because you do some fancy accounting stuff, and actually, there is not that much cash being generated as you tell us, then it has an impact on value. And if you do not find it, you, you overpay, and obviously it would help massively, if there would be a way to, yes. To confirm that all of the underlying transactions and data is, is actually accurate, because and I can imagine this is actually something that a company could do, like bookings on blockchain probably, or something like that, to really prove that all of the bookings are. Legit.

19

INT.: It is being done.

20

S6: Already. Yes, probably at some companies. Probably. From what I can tell, accounting data often seems to be quite messy, so this could really help with the, with the underlying data quality and, take some burden from actually confirming those data. But on the other hand, I think some things are just taken not for granted right now. I mean, you still critically ask yourself, can this be true, but simply cannot check for every single book entry that it is actually accurate and legit?, so I think the more critical work that accountants do is really on the point of, analyzing the underlying data and looking into the presentation is. Is this really presented the right way? Would we look at this differently? And is the underlying earnings that are being shown to us. Is that actually. Real earnings? Or is that some fancy accounting trick that tells us this company is doing well, but it is actually not.. So. And I think there, technology can help you probably to pre filter certain keywords and, and bookings that you would see in many transactions.. But what it could really do, I think, is to give

	<p>you confidence that the underlying data is actually correct, accurate, has not been manipulated, and this is a comfort that I think it is actually quite hard to get today, or close to impossible.</p>
21	<p>INT.: Yes. This is, it is funny that you say that because it is in line with what I heard from the other experts so far. The more I talk to, let us say, the business side of things, the more the more it, seems like the whole blockchain thing would be even more useful, step before in the audit slash accounting world, because at the end of the day, this is. I mean, I did not know because I do not have the insights until now, but, what I from what I came from, I thought the FDD stream would also reconcile the data and, and double check the entries. So exactly what they do not do, so that is why I thought you could use that technology there. But then, as it seems, it makes more and more sense to utilize the technology a step before. So even before you speak about a M&A transaction to, yes. To guarantee in the first step that data is, let us say, as accurate as possible. This is what, yes. Sounds of more and more, it makes sense to me, what I, I as I did not know, it was hard for me to picture that. The only other question I have is what happens when? Because right now, I mean, Deutsche Bank usually, I am guessing, is handling transactions, that are mid-size or above. What happens if statements are not audited? Because I guess in your case, usually statements are audited or in LA times review. No.</p>
22	<p>S6: Well, because.</p>
23	<p>INT.: Before I let you, speak on this,.</p>
24	<p>INT.: I was thinking in the.</p>

25	<p>INT.: Case where statements are not audited. Then again, you would have you would have the benefit of the blockchain because you could use it to. Audit your statements without having to go check for yourself. I mean, we are assuming obviously the program, and the code is perfect and so on, but yes.</p>
26	<p>S6: Yes. So, I mean, it depends a bit. What is what is being on what is being sold. Right?, so if the transaction perimeter that you talk about is based on a certain set of legal entities. Yes. You will have audited financials for these legal entities and, the feed provider or the also the, the yes, the, the accountants on, on the buy side, they will actually take all of the numbers that are being kind of combined for the transaction perimeter and reconcile all of these to the audited financial statements. And then you will find the statement in the due diligence report that says we could reconcile all of the numbers to, the audited financial statements based on local, GAAP accounting. Or maybe there were some differences which could be explained by x, y, z. And this is something that is actually being done, if it comes to carve out transactions where you actually buy just. Not something that is more existing virtually, because it is part of, larger corporate, let us say, operating internationally. And they have subsidiaries in the US and, in France or whatever, but these legal entities, they do, they have different business lines. And you just want to carve out one of these business lines. So, you have to virtually. Set up a set of financials, which is really, really that is really, really challenging to set up in the first place because you have to define, does this belong to that business line or is it this business line? And everything is done in the same accounting bookkeeping system?, and what is the transfer pricing between those? Does this person belong to this business line or that business line. And that is basically virtually building a company in financial statements that is actually do not exist. And that is obviously really, really hard to reconcile to any audited financial statements. So, you probably audited financials. You will only get ones that. Construct is set up. And someone actually does the closing accounts, that you use to determine the final purchase price payment, and. Maybe. I mean, I think the better data quality at the company and the more they can give you. Information that this is actually accurate data I think the better.. But I think. Separating financials. And the legal entity into two different business lines will always remain a really. I think if you have really, really accurate data, that helps a</p>

	<p>lot. So, it tells you this is actually booked under Business line one. This is business line two. This is but it is not always clear cut. Right. Sometimes one person does 20% this 80% that. And no one can tell you because no system knows what that person is actually doing, so that is a really, really painful process, but I think it could also be improved, if there was like really granular data available that helps you to build this.</p>
27	<p>INT.: Yes, that makes sense, more generally, because this leads to it, all the M&A experts basically said in different nuances, but basically what they said was the more precise and valid and, verified data gets, the better the FDD output will in the end, because basically they are saying we are taking all the underlying numbers and information, the higher validity, authenticity also actuality we have, the better it will be for our performance. So generally, they it sounded a little bit like we do not care as long as data is getting better. Would you? How would you comment on this? Or by better I mean by accurate or. Yes.</p>
28	<p>S6: Yes. I mean, that is true. I think a financial due diligence report can only be as good as somewhat the underlying data. And I think one, one critical point right now, you just cannot make sure that all of the data that is going into your whatever model you set up, for, for the financials, that it is accurate. I think there is just no way to prove it. And anything that helps, verifying the underlying transactions. I mean that. That is a step change in. Your comfort that numbers are actually accurate because you just cannot do it today. Yes, it is impossible. It is just too much. And of course, the asset would also not want you to call off the customers and, and, they then find out, oh, there is transaction happening, for sure. It is just, it is,. Yes. You cannot even. Yes.</p>

29	<p>INT.: Cannot keep it hidden. Cannot, cannot double check without everybody finding out. So. Yes. All right. Yes. Good, so that is that much for the plan part. I have, six sentences on my screen right now. I do not know if they are. Can you read them, or should I put them bigger?</p>
30	<p>S6: I can read it.</p>
31	<p>INT.: I will just enhance it by a bit.</p>
32	<p>S6: Yes, yes.</p>
33	<p>INT.: All right. So maybe if you could just go through the sentences one through six and comment. It does not need to be agreeing, disagreeing. Just, just comment on whatever you feel to comment on.</p>
34	<p>S6: Okay. So, I think, for the first one, M&A transactions typically take longer than anticipated. Okay.. Because people are optimists and think you can get it done on time, but you ultimately do not. And of course, due diligence often brings stuff to light that you were not expecting, and that can already be in preparing the actual due diligence, right? If the sales side is setting up the data room and they find docents that seem to be critical, and then they wonder how to deal with it, I think all of this is just making the process longer than you anticipate in the beginning. Not sure if they are somewhat in effective.. I think all that you do, somehow is being done to give a person comfort, to take a decision. And yes, probably. People that are actually working on the day-to-day diligence, do more stuff to prove or to</p>

	<p>give some someone higher up the chain that comfort, so maybe. Yes. But in general, I think it is a really typically tight process.. (..) Yes. Not really sure if it is really ineffective, but.</p>
35	<p>INT.: Maybe I meant, inefficient. I change the slides today. Might be me. All right.</p>
36	<p>S6: Checking,. My battery. (..) Because maybe, switch off the camera. (4), because I only have 4% left, so. The second one.. Absolutely agree. (..) I think. No. No debate. It is more time consuming and also costly because you have a lot of advisors and people running the due diligence that could actually do day to day jobs in the business. Bed rushed or flawed financial decisions can lead to bad post-deal performance I partially agree, I think. That performance post deal is probably mostly a question of, your diligence on the business plan and, strategy and so on. Yes. If you miss something in the historical financials, it can be costly. But I think, the. Business plan is the more critical for the overall value and performance of your acquisition.</p>
37	<p>INT.: This this refers a bit more to like, like let us say, lighthouse cases. I do not know if you heard about the AOL Time Warner, merger. Yes. And they, they, they missed, inventory, I think inventory of, of assets that, like CDs were supposedly assets and not marketing expenses, even though the CDs would never come back, stuff like that. This is what this refers more to. So, yes, stuff that has been missed or. Yes. Missed. Hidden.</p>
38	<p>S6: No, I think that makes sense, and, and there are probably a few cases where it really went wrong.. But I think in the grand scheme of things, probably on aggregate, the business plan is the more critical thing, but of course, if you rush or if you do not look, at everything, then you will obviously be missing these things. But sometimes you just also overlook something because someone actually wants to do</p>

	the transaction, so, or you actually find it and, you still go ahead. Like. Like by Monsanto, for example, right? Yes. Yes. True. Knew this was coming and they still wanted to do the deal.
39	INT.: And they are still digesting it as well.
40	S6: So, number four institutions have regrouped is blockchain and use case. (...) I can hardly tell. I think that accountants would probably know better, I think from what I see in in due diligence processes, data is often quite decentralized and not having the best quality you would wish for, so I think there is a lot of room for improvement, some people are working on it,.
41	INT.: Within Deutsche Bank as well. Do you know? I mean, you do not need any specifics. Just do you know whether anybody is working on potential utilization of blockchain within your company?
42	S6: That that is certainly I think the I think every, every bank is, exploring on how they can leverage it, perfect. But I think more for, for the own bookings and, and transaction banking and so on. Not, not really in M&A because I mean, yes, we work for six months and then we send out one bill and, I think. That is. That is all we do, traditional accounting data can be tampered with, which in turn enables. Yes, I agree, people can play around with it, and it is hard to tell, or identify that actual bookings are, in existent or not, information asymmetry and lacking transparency can impact M&A deals negatively, yes. So, if I mean, you can review all, all of the data that you see in the VR and ask all the questions that you can think of, of the other side is hiding something, it will go down south for you. Yes.

43	<p>S4: All right. Good.</p>
44	<p>INT.: yes. This is all I had prepared for, our talk. We are a bit over the one hour, do you have any more questions? First.</p>
45	<p>S6: I would be excited to see the results, actually, to learn what other people may have, may have said, because it is actually a painful process. But, if you were working on a day to day, It is obviously for us, It is always hard to think about improvements if, It is already so time consuming that, you are focused on just getting things done, so really curious to see, where there are, opportunities going forward, and I think for me, the, the essence also reflecting on, on the discussions that we had, is. I think. (..) It can really help kind of in data quality and preparation and, kind of giving you confidence that the underlying data is all correct and complete, I think that is at least the most, the most critical near-t step that I would see for the technology. Yes. And I. Struggle a bit to see how it will actually. Also support the due diligence process, because I think there people will continue to be focused on actual. Menu. I would sell it review, like human review, and will not fully rely on, automated review or whatever, but I think, I mean, this is probably just going to take some time because before hands are being replaced in all of these functions. But I think the most. Useful. Near-t use of the technology is certainly in improving data availability, quality, centralization and with that, significantly reducing preparation time. And also, the due diligence will obviously benefit if there is data requests at a later stage, if that is just simply available and the company knows where to find it and does not have to manually gather data, across the organization. I think that is a bit from what, what I would take away from, from the discussion for myself.</p>
46	<p>INT.: Yes. That is, that is what, I would say too. I went back to the four dimensions I spoke about earlier, and obviously the data quality and accessibility are the main things. I think this is where you can see benefits really quick. The security aspects, I think, is for</p>

	<p>technologists to decide because I honestly cannot really assess how secure a VR is. I know some of them are already operating on blockchain and some are not, but apart from that, I have no IT knowledge deep enough to assess that. But yes, I would definitely agree. It is for sure going to be how valid is the data. How actual is it, can I make sure the person that uploaded the docent had the right to do so? Is this the newest version of the docent? So, in terms of, all these dimensions, I think it could be really useful. And as you said, the reviewing. And then at the end of the day, make taking a decision or, yes, acting on assumptions is always going to be done by human, at least in the very near future for some time.</p>
47	<p>S6: Yes. I am excited to see what comes next, probably will have to work for a few more years. So probably let us, let us see. Yes, but I think any improvement, at least for us also working on the sales side, would be, would be really, really good to see, and would help us a lot also in our daily, daily life.</p>
48	<p>INT.: All right.</p>
49	<p>INT.: Good, yes. As I said, I will send you, a bit before handing it in, the interview transcript so you can read through, what we spoke about today, I yes, I think that is about it, anything else?, I will let you know. I mean, when I hand in when the thesis has been defended and so on, yes. If you have any follow up questions, anything you want to change, let me know. And if you do not have any other questions, I would close here.</p>
50	<p>S6: No.</p>

51	S6: No questions for now, if you have any follow ups based on the conversation you have, just reach out, happy to get on the phone quickly any time, if there is anything,. You would like to know in addition.
52	INT.: All right.
53	INT.: Thanks a lot. Thanks for making time. And I have a great day.
54	S6: Thank you. You are too. Bye.
55	INT.: Thanks. Bye.
56	S6: Yes.
57	INT.: Bye.

Appendix H: Category Manual

Category Name	Content Description	Category Application
1. FDD Framework	All information regarding the procedure of FDD.	This category is coded if the following aspects are mentioned: FDD goals, participants, procedures, tasks, timeframe, scope, types etc.
2. FDD Challenges	All information regarding Challenges, challenges, time sensible and/or critical tasks during FDD.	This category is coded if the following aspects are mentioned: Bottlenecks, inefficiencies, margin for error and/or fraud, complexity, data, critical and/or sensible tasks (refers to tasks that massively influence the overall FDD outcome, e.g., because of deliberate or inadvertent fraud, human error etc.).
3. Blockchain Potential	All information on potential use cases for and/or benefits of utilizing blockchain technology in an M&A context.	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding data quality, validity, trust, immutability, actuality, security, transparency, traceability etc.
4. New Insights	All pieces of new/unknown information or new findings.	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight in more detail, adding to the contributions of this paper.
5. Testing Hypotheses	All information concerning the hypotheses established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses, e.g.,

		validation, contradiction, personal experience, enrichment, nuances etc.
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Appendix I: Codebook (1st Coding Round)

Code (No. of coded segment)	Content Description	Category Application	Examples of application
1. FDD Framework (72)	All information regarding the procedure of FDD.	This category is coded if the following aspects are mentioned: FDD goals, participants, procedures, tasks, timeframe, scope, types etc.	S1, Pos. 3; S2, Pos. 12, S3, Pos. 6; S4, Pos. 11; S6, Pos. 4
2. FDD Challenges (34)	All information regarding Challenges, challenges, time sensible and/or critical tasks during FDD.	This category is coded if the following aspects are mentioned: Bottlenecks, inefficiencies, margin for error and/or fraud, complexity, data, critical and/or sensible tasks etc. This category is coded if the following aspects are mentioned: sensible and/or critical tasks. This refers to tasks that massively influence the overall FDD outcome, e.g., because of deliberate or inadvertent fraud, human error etc.	S1, Pos. 32; S2, Pos. 8; S3, Pos. 12; S4, Pos. 20; S5, Pos. 22; S6, Pos. 16
3. Blockchain Potential (56)	All information on potential use cases for and/or benefits of	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding data	S2, Pos. 48; S3, Pos. 12; S4, Pos. 16; S5, Pos. 25-26; S6, Pos. 20

	utilizing blockchain technology in an M&A context.	quality, validity, trust, immutability, actuality, security, transparency, traceability etc.	
4. New Insights (44)	All pieces of new/unknown information or new findings.	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight in more detail, adding to the contributions of this paper.	S1, Pos. 44; S2, 60; S3, Pos. 10; S4, Pos. 57-58; S5, Pos. 6, S6, Pos. 10
5. Testing Hypotheses (73)	All information concerning the hypotheses established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses, e.g., validation, contradiction, personal experience, enrichment, nuances etc.	S1, Pos. 73; S2, Pos. 78; S3, Pos. 36; S4, Pos. 68; S5, Pos. 51; S6, Pos. 40-42

Appendix J: Sub-Category Manual

Parent Category (No. of Sub-Categories)	Child Categories	Content Description	Category Application
FDD Framework (6)	1. Goals	All information regarding underlying goal of performing due diligence.	This category is coded if the following aspects are mentioned: FDD goals/purpose.
	2. Types	All information regarding different types of financial due diligence.	This category is coded if they interviewees response entails a differentiation between types of FDD.
	3. Process	More detailed feedback regarding the FDD procedure.	This category is coded if they interviewees response detailed insights on the procedures of M&A. This could include main tasks, timeframe, output(s) etc.
	4. Main Tasks	Keywords or short passages revealing information about the main tasks within FDD according to the interviewees.	This category is coded if the following aspects are mentioned: typical tasks for M&A FDD experts e.g., different financial analyses.
	5. Timeframe	Information concerning the usual or average timeframe of M&A FDD from the experience of interviewed professionals.	This category is coded if the following aspects are mentioned: duration, time, personal experience w. regards to FDD timeframe.
	6. Output	Information describing the final output/ of FDD.	This category is coded if the following aspects are mentioned: output formats, presentation of results etc.
FDD Challenges (4)	7. Data	All information regarding Challenges with regards to data.	This category is coded if the following aspects are mentioned: data quality, gathering, -cleaning, -reconciliation, -review, etc.

	8. Manipulation/Error Risk	All information regarding Challenges with regards to the risk of fraud/error.	This category is coded if the following aspects are mentioned: accidents, fraud, tampered accounting, human error etc.
	9. International Transactions	All information regarding Challenges with regards to the complexity of international transactions	This category is coded if the following aspects are mentioned: tax, international transactions, cross-border M&A etc.
	10. Audited vs. Non-audited Financial Data	All information regarding Challenges with regards the difference in FDD with audited vs. non-audited data.	This category is coded if the following aspects are mentioned: differences between FDD with audited vs non-audited data.
Blockchain Potential (4)	11. Data Quality	All information on use cases for or advantages of blockchain technology that concern the topic of data quality. All information on use cases for or advantages of blockchain technology that concern the topic of data gathering.	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding data quality e.g., validity, reliability, integrity, actuality, traceability. This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding the gathering/collection of data, data exchange
	12. Audit/Accounting: Fraud Detection/Error Prevention	All information on use cases for or advantages of blockchain technology that concern the field of auditing and/or accounting, especially with regards to the mitigation of specific accounting/audit risks	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology specifically in the field of accounting and/or auditing. Especially if the following aspects are mentioned: fraud, human error, typos, double-checking etc.

	13. Automation	All information on use cases for or advantages of blockchain technology that concern areas with potential for automation	This category is coded if the following aspects are mentioned: tasks that could be automated e.g., to increase efficiency, quality, etc.
	14. Transparency	All information on use cases for or advantages of blockchain technology affecting transparency.	This category is coded if the following aspects are mentioned: transparency. E.g., on processes, on data alteration, on (data) access.
New Insights (5)	15. SMEs	All pieces of new/unknown information or new findings concerning SMEs	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight with regards to scenarios with SMEs involved in more detail, adding to the contributions of this paper.
	16. VDRs	All pieces of new/unknown information or new findings concerning VDRs	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight with regards to VDRs.
	17. Cases	All pieces of new/unknown information or new findings concerning real-life cases referred to or experienced by the interviewee.	This category is coded if experiences/anecdotes from notable real events are mentioned up that may be useful for further analysis or for examination of research questions or hypotheses.
	18. “Anything faster/more reliable”	All relevant information around the claim “anything faster/more reliable”	This category is coded if the notion, that anything making data accessible/available faster and the data more reliable will ultimately positively influence FDD, is advocated for by the interviewee.

	19. Outlook on Blockchain Adoption	All pieces of new/unknown information or new findings concerning the interview candidate's view on the future of blockchain adoption in a M&A/business context.	This category is coded if the following aspects are mentioned: outlook, future adoption, predictions, assessment of blockchain readiness etc.
Testing Hypotheses (6)	20. A1	All information concerning the hypothesis 1A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 1A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.
	21. A2	All information concerning the hypothesis 2A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 2A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.
	22. A3	All information concerning the hypothesis 3A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 3A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.
	23. A4	All information concerning the hypothesis 4A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 4A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.

	24. A5	All information concerning the hypothesis 5A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 5A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.
	25. A6	All information concerning the hypothesis 6A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 6A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.

Appendix K: Codebook (Sub-Codes, 2nd Coding Round)

Parent Category (No. of Sub-Categories)	Child Categories (No. of Coded Segments)	Content Description	Category Application	Examples of application
FDD Framework (6)	1. Goals (3)	All information regarding underlying goal of performing due diligence.	This category is coded if the following aspects are mentioned: FDD goals/purpose.	S1, Pos. 16; S4, Pos. 9, S6, Pos. 4
	2. Types (5)	All information regarding different types of financial due diligence.	This category is coded if they interviewees response entails a differentiation between types of FDD.	S2, Pos. 8; S3, Pos. 16; S4, Pos. 9
	3. Process (13)	More detailed feedback regarding the FDD procedure.	This category is coded if they interviewees response detailed insights on the procedures of M&A. This could include main tasks, timeframe, output(s) etc.	S1, Pos. 3; S2, Pos. 12; S3, Pos. 6; S4 Pos 11-14; S6, Pos 4-6
	4. Main Tasks (42)	Keywords or short passages revealing information about the main tasks within FDD according to the interviewees.	This category is coded if the following aspects are mentioned: typical tasks for M&A FDD experts e.g., different financial analyses.	S1, Pos. 3,5,16; S2, Pos. 38; S3, Pos. 24, S4, Pos. 9; S5, Pos. 34; S6, Pos. 14, 18

	5. Timeframe (8)	Information concerning the usual or average timeframe of M&A FDD from the experience of interviewed professionals.	This category is coded if the following aspects are mentioned: duration, time, personal experience w. regards to FDD timeframe.	S1, Pos. 8; S4, Pos. 9; S5, Pos. 8
	6. Output (1)	Information describing the final output/ of FDD.	This category is coded if the following aspects are mentioned: output formats, presentation of results etc.	S4, Pos. 14
FDD Challenges (4)	7. Data (21)	All information regarding Challenges with regards to data.	This category is coded if the following aspects are mentioned: data quality, gathering, -cleaning, -reconciliation, -review, etc.	S1, Pos. 60; S2, Pos. 14; S3, Pos. 12; S4, Pos. 16; S5, Pos 22; S6, Pos. 6
	8. Manipulation/Error Risk (5)	All information regarding Challenges with regards to the risk of fraud/error.	This category is coded if the following aspects are mentioned: accidents, fraud, tampered accounting, human error etc.	S1, Pos. 32; S2, Pos. 33-34; S3, Pos. 10; S5, Pos. 10; S6, Pos. 42
	9. International Transactions (3)	All information regarding Challenges with regards to the complexity of international transactions	This category is coded if the following aspects are mentioned: tax, international transactions, cross-border M&A etc.	S1, Pos. 3, 32; S3, Pos. 28

	10. Audited vs. Non-audited Financial Data (5)	All information regarding Challenges with regards the difference in FDD with audited vs. non-audited data.	This category is coded if the following aspects are mentioned: differences between FDD with audited vs non-audited data.	S2, Pos. 8; S4, Pos. 20
Blockchain Potential (4)	11. Data Quality (21)	All information on use cases for or advantages of blockchain technology that concern the topic of data quality. All information on use cases for or advantages of blockchain technology that concern the topic of data gathering.	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding data quality e.g., validity, reliability, integrity, actuality, traceability. This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology regarding the gathering/collection of data, data exchange	S1, Pos. 44, 46; S2, Pos. 50; S3, Pos. 12; S4, Pos. thirty-four; S5, Pos 25-26; S6, Pos. 45
	12. Audit/Accounting: Fraud Detection/Error Prevention (15)	All information on use cases for or advantages of blockchain technology that concern the field of	This category is coded if the following aspects are mentioned: perceived benefits and/or use cases of utilizing blockchain technology specifically in the field of accounting and/or auditing. Especially if the	S1, Pos. 32; S2, Pos. 107; S3, Pos. 8; S4, Pos. 64-66; S5, Pos. 93-94; S6, Pos. 26

		auditing and/or accounting, especially with regards to the mitigation of specific accounting/audit risks	following aspects are mentioned: fraud, human error, typos, double-checking etc.	
	13. Automation (14)	All information on use cases for or advantages of blockchain technology that concern areas with potential for automation	This category is coded if the following aspects are mentioned: tasks that could be automated e.g., to increase efficiency, quality, etc.	S1, Pos. 22; S2, Pos. 22; S3, Pos. 14; S4, Pos. 16, 34; S5, 9-10
	14. Transparency (6)	All information on use cases for or advantages of blockchain technology affecting transparency.	This category is coded if the following aspects are mentioned: transparency. E.g., on processes, on data alteration, on (data) access.	S3, Pos. 30, 32; S4, Pos. 34
New Insights (5)	15. SMEs (9)	All pieces of new/unknown information or new findings concerning SMEs	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight with regards to scenarios with SMEs involved in	S1, Pos. 18; S2, Pos. 8; S4, Pos. 48, 40

			more detail, adding to the contributions of this paper.	
	16. VDRs (8)	All pieces of new/unknown information or new findings concerning VDRs	This category is coded if aspects, findings, experiences are mentioned that reveal unknown or partially covered insight with regards to VDRs.	S3, Pos. 10; S4, Pos. 24; S5, Pos. 6; S6, Pos. 4
	17. Cases (9)	All pieces of new/unknown information or new findings concerning real-life cases referred to or experienced by the interviewee.	This category is coded if experiences/anecdotes from notable real events are mentioned up that may be useful for further analysis or for examination of research questions or hypotheses.	S1, Pos. 44; S3, Pos. 10, 56; S4, Pos. 57-58; S5, Pos. 22; S6, Pos. 18
	18. “Anything faster/more reliable” (8)	All relevant information around the claim “anything faster/more reliable”	This category is coded if the notion, that anything making data accessible/available faster and the data more reliable will ultimately positively influence FDD, is advocated for by the interviewee.	S2, Pos. 60; S4, Pos: twenty-eight; S6, Pos 27-28
	19. Outlook on Blockchain Adoption (10)	All pieces of new/unknown information or new findings concerning the interview candidate’s view on	This category is coded if the following aspects are mentioned: outlook, future adoption, predictions, assessment of blockchain readiness etc.	S1, Pos. 26; S3, Pos. 32, 44, 46, 48-50

		the future of blockchain adoption in a M&A/business context.		
Testing Hypotheses (6)	20. A1 (15)	All information concerning the hypothesis 1A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 1A, e.g., validation, contradiction, personal experience, enrichment, nuance etc.	S1, Pos. 71; S2, Pos. 74; S3, Pos. 36; S4, Pos. 52; S5, Pos. 51; S6, Pos. 34
	21. A2 (12)	All information concerning the hypothesis 2A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 2A, e.g., validation, contradiction, personal experience, enrichment, nuance etc.	S1, Pos. 73, 75; S2, Pos. 74, 78, 80; S3, Pos. 36-38; S4, Pos. 54; S5, Pos. 51-56; S6, Pos. 36
	22. A3 (11)	All information concerning the hypothesis 3A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 3A, e.g., validation, contradiction, personal experience, enrichment, nuance etc.	S1, Pos. 77; S2, Pos. 80, 82; S3, Pos. 40; S4, Pos. 54-56; S6, Pos. 36, 38
	23. A4 (8)	All information concerning the hypothesis 4A established in	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 4A, e.g., validation,	S1, Pos. 79; S2, Pos. 88,90; S3, Pos 44; S4, Pos. 60; S6, Ppos. 40-42

		earlier stages of this work.	contradiction, personal experience, enrichment, nuaciation etc.	
	24. A5 (14)	All information concerning the hypothesis 5A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 5A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.	S1, Pos. 83; S3, Pos. 52-54; S4, Pos. 64-68; S5, Pos. 23-24; S6, Pos. 42
	25. A6 (13)	All information concerning the hypothesis 6A established in earlier stages of this work.	This category is coded if aspects are mentioned that directly or indirectly impacts the hypotheses 6A, e.g., validation, contradiction, personal experience, enrichment, nuaciation etc.	S1, Pos. 20; S2, Pos. 97; S3, Pos. 56; S4, Pos. 68; S5, Pos. 84; S6, Pos. 42

1	<p>S1: Yes. My name is [Name]. I am a senior manager in the [German City] Deals office at [Big 4 Company] and I started off my career at other [Big 4 Company] and also worked for [major French Bank] both in M&A and predominantly these days I am doing financial support in terms in context of transactions especially financial due diligence and vendor assistance. So, what about some details around me? so we can start off, I guess.</p>
2	<p>INT.: Yes. Yes. Perfect. that is actually exactly what I envisioned with having you here. so just to refresh a bit the memory my master's thesis is exploring how the utilization of blockchain technology especially tokenization may alleviate some of the issues that may or may not be prevalent in M&A transactions with special regards to due diligence and even more focused on financial due diligence as this is somewhat the core of my work. So, I brought three main questions, and I allocated roughly ten minutes. If we are quicker than the better. maybe fitting to your background starting with the first one. so, I had troubles finding some type of a more generic framework for financial due diligence obviously depending on deal size and type of deal and so on there will be variations. But my first question would be if you could please comment out a little. yes, a more generic financial due diligence process so as to I can understand how it works for now and how the process is and what the steps are that you usually take. So yes, if you can comment on that maybe for the blueprint.</p>
3	<p>S1: Blueprints FDD [Financial Due Diligence] project would be there is an M&A process running an auction normally where there is a sell side advisor inviting other parties to a process. And as a bidder reaches a certain stage, he gets his advisors involved for the second phase of the M&A project after handing in the non-binding offer. And then you get access to the as the VDR advisor with your team you drop an info request list which lines out the parts of your required information in line with your scope of work. And that scope of work normally covers the elements that have to be addressed in the share purchase agreement especially the net the net debt part meaning also the part of the equity bridge that includes balance sheet liabilities off balance sheet liabilities all that kind of stuff. You need to produce a clear net working capital definition and make adjustments to net working capital to come up with a normalized number especially if</p>

	<p>you have an under or over funding towards closing. and the third aspect would be then the normalized EBITDA where you make your quality of earnings adjustments in order to arrive at the normalized level. you of course always have certain situations where you look at carve out financials or you look at GAAP to GAAP reconciliation from German GAAP to IFRS or that kind of stuff. But that is more work on the sell side where they build up the numbers before, they start the process. So yes, but that will be the normal course of action. Then you provide your client with the with the analysis and then it goes obviously back and forth based on your assessment and you eventually yes hopefully reach the final stage once you had the final or binding offer handed in based on your assessment as the client. And when it comes then to what signing you get your FDD expertise back in and support drafting the SPA or making the markup on the SPA. Yes, those are then the follow up steps which are more senior compared to the normal FDD approach. And along this FDD approach we as [Big Four Company] have obviously our lots of tools running and try to get more optimized and use GenAI for instance and use our global capacities to be more efficient.</p>
4	<p>INT.: So. Okay so thanks for that. So, if I understood correctly is more or less a three-phase process. Right. So, we start with the excuse me you start. With the requirements list and work your way from there going to the equity going to a normalized EBITDA. And then depending on tax authority or accounting measures I guess depending on that you take further action.</p>
5	<p>S1: I mean if you really look at it in a very simple way It is one phase where the FDD comes into place. And that is when you look at the M&A project Terme starting on the sale side they do their preparations with the client with the sellers. And at a certain stage they approach certain bidders. And if the bidder is invited to the to the process if he is happy with the NDA and also with the process letter etc. etc. and he hands in his non-binding offer and that is accepted he will normally get us involved to take a look at the financials. and. Our work is finished when we hand in the FDD report. That is the original part of the process. And our scope of work that we look at is coming up with a normalized EBITDA. So, if you take if you think about valuation you need to have when you do a multiple valuation for instance you need to have an EBITDA and that has to be on a recurring basis. So, it has to be the accounting or reported EBITDA. And then you</p>

	<p>have some adjustments that management made because they think in Covid they had extra costs, or I do not know certain stuff. Then we come up with our adjustments where we partly make adjustments to these assessments also come up with our own view. And then you have to have your enterprise value calculations but then you need to make your adjustments. And those are from coming from the enterprise value to the purchase price or the or the binding offer. And that includes a view on adjustments to or net debt. Yes. You have some liabilities or not. The entire cash is distributable. It is. For instance, trapped cash is included on. And then you have to take a look at your net working capital. Because when you have a normalized level of net working capital which is I do not know one hundred and at closing you only have 99 in your books you would have an adjustment of minus one from the purchase from the equity value from the enterprise value to the equity value. So, you also need to look at working capital. So normally It is these three pieces okay.</p>
6	<p>S1: quality of earnings which is EBITA. You have your network capital analysis, and you have your net debt view. So, these three are very important because they are included in the binding offer and also in the SPA.</p>
7	<p>INT.: All right all right. That clarified a lot. Okay. I think for the generic if the process that is. Fine. I have two follow up questions. Maybe first can you give a rough estimate on an average? I mean this is depending on deal size and all but maybe from your experience from your past projects and average financial due diligence time.</p>
8	<p>S1: time frame. I mean you normally see 3 to 5 weeks where we do our really our work. and then the entire DD phase runs a little longer because then you have some follow up time for management, but I would say 3 to 5 weeks on our end.</p>

9	<p>INT.: Three to five weeks. And because there are several types of due diligence would you say that financial due diligence is ranking rather amongst the shorter due diligence or the longer ones?</p>
10	<p>S1: It is the I would say most important. Yes.</p>
11	<p>INT.: That was I think we can all agree on this.</p>
12	<p>S1: It is the one that the client really wants to see compared to let us say it or tax. I would say financial and commercial are the most important ones. But the depends once again on your business if you look at infrastructure if you look at some heavy, I do not know really capital-intensive business infrastructure. You also have technical DD which is I would say then or operational DD which is then even more important and consumes less time or is expected to consume less time because it is more urgent.</p>
13	<p>INT.: Okay. But due to the let us say importance and nitty gritty ness of the financial due diligence it makes it long. I guess this is how I understood.</p>
14	<p>S1: It depends. It depends really. I mean It is a kind of It is a service when you have a client who is really well educated like the private equity fund that would normally, they would give you guidance what they need, and you do not have to do everything. And then you hopefully get well-prepared documents on the sell-side. So, it depends really on the on the size of the project. I would say if you had a well-organized site with a good investment bank and another big four company for instance preparing the sell side documentation you, I</p>

	<p>do not know it can take only 2 to 3 weeks. Yes, you can do if there is a vendor DD running. That is a financial due diligence prepared by the sellers. You would do a top up deed on the buyer side which incorporates less time. Yes. So, it really depends on the quality of financial information. If you have these really big deals that is all well prepared. And if you look at mid-cap deals where we are really active in it gives you sometimes a difficult time.</p>
15	<p>INT.: Yes. I heard Okay. Well, this leads very well to the second question so maybe let us just jump straight into this one so now that we looked a bit at the generic process my question is because it is hard to find with public information at least that was my experience. What are the pain points. So, what are the challenges? What are the most time? Also, the most time-consuming tasks you have to perform within your financial due diligence. Of course.</p>
16	<p>S1: Normally it is. And if you do it really properly this deriving the normalized income level. Okay. It is I mean what you would normally do or have to do is. And that goes well beyond the normal FDD scope is that you need to derive an EBITDA which really tries to get to the core of the of the income power. Yes. So, what you would normally say is that the quality of financials it has to be looked at other financials correct in first place. And that is normally not the turf of you know we expect that the persons at that company enter the financials correctly you know they get a receipt and enter it on their SAP ERP system. That is not what we look. But we look rather is the quality of financial information. is it giving you the true and fair view that you can do a valuation? And if you do really properly you do not only I do not know eliminate the extra costs of the last Christmas party but rather look at where would that business be today if COVID hadn't happened you know and those are really the nitty gritty parts and where you need to pull up or come up with the few times p meaning a quantity times price grid where you can really make assessment. Hey, they went down in that regard and that pricing is just because they give a one-off discount. And if you really go into that detail and do not only stop at the high-level view what is normally the case because you only have 3 to 5 weeks as I said that really gets into really nitty gritty parts and can also and as I said, that goes beyond the normal scope of FDD. That can also be the strategy consultants turf you know doing the CD. But normally where we</p>

	<p>see difficulties is deriving like a gross profit which is really thorough which is going to be there also going forward looking at quantity times price grids. Yes. In terms of revenues and costs. But then also what is s g and a that is personal expenses for instance admin in admin functions where you look at hey what kind of cost do I will I have going forward? Do I need do I need a new CEO who earns less or more? And really deriving that number is very crucial. That EBITDA figure I would say for what is also very difficult normally is deriving the net debt because you can take obviously what you see on balance and make distinguishment you can also make a revaluation of that. Yes. If it is debt which has been drawn five years ago. interest rates change. So, it will not be in line with what you would see today when you refinance yourself. Sure. So that would also be some kind of aspect but also these off-balance sheet items. Right. If you have a CapEx backlog for instance and as a company, you have a business plan with a really great EBITDA going forward. But to achieve that EBITDA you would first of all need to invest like a billion. Yes. And if you do not see that in the business plan you obviously need to deduct that from the enterprise value. And or the present value of these investments. So, you have the full package. So also, apart from the quality of earnings part looking at EBITDA the net debt schedule from my experience is one of the most crucial parts.</p>
17	<p>INT.: Okay. So, I have two questions now. first so what I understood is it you are not too much concerned about the validity of data but more about what value it has to you in terms of analysis. Is that correct? Yes.</p>
18	<p>S1: Normally the companies that we work with are not that tiny. They have they have an accounting department. And but sometimes we also get for instance startup businesses. Yes. That have a really high enterprise value compared to what you see in the books. Right. These growth companies. Yes. Yes. Where the financials are sometimes not that great. They have external advisors for the most part which is helpful but normally they lack this expertise because they focus on other areas. Yes. So, if you have a feeling on a deal that financials are. Yes. Not that. Quite all right. obviously, we also write that down our report in the basic preparation section.</p>

19	<p>INT.: Sure. And then and so we already spoke about data quality is that is not necessarily in your scope because you asse that data is audited and therefore, correct? Is data accessible generally or are there any issues with accessibility of data or how does the I mean I know there is VDRs and usually that is being used in M&A deals but is there any accessibility issues that you have encountered in the past regarding data or information more generally?</p>
20	<p>S1: I mean data is. are normally structured in the trial balance format which is in German "SuSa" ("Summen- & Saldenlisten"). And you get these from I do not know Datev or SAP downloads and those are normally prepared or provided to us. So that kind of data is not the real issue. And we also have tools on today which allow us to get those structured data and populate them in our system kind of easily. And also applying blueprint analysis let us say you have you get data and simply spoken. You take it the system runs over it and gives you a really structured flat file that incorporates the date the number the account name and etc. the periods everything you need. And then you can select from blueprints and say hey I want to do the network capital analysis. And that presents to you the net working capital analysis. But the data that we get in the first step we are getting to... We get the data to answer your question normally sometimes we need to make follow up questions. "Hey, we need to have it on a monthly basis.", "Hey, we need to have it for another period" etc. etc. but that is for FDD normally not the issue. If you go down the line and say hey, we want to take a more thorough look at data for the gross profit. that can be a sensible task especially if you work with strategic client who has a who is working as a competitor in the market. Yes. And the sellers are really reluctant to provide you with this data so. Yes, but I would not say that this is the normal case. You normally get a good set of data because the sellers also want to have a quick process and want you as a buyer to be involved. But yes, as always it depends.</p>
21	<p>INT.: Okay. Yes. Yes. This is the typical it depends. okay. One last question. Maybe before we move to the next topic are there any tasks or any, I mean we spoke about pain points and challenges. Are there any tasks that seem excruciatingly inefficient or too analog or is</p>

	<p>there anything where you say this could yes this could be for instance digitized or automated in some more efficient way that you can think of maybe of report writing?</p>
22	<p>S1: I mean I think FDD to be honest that will not be as we do it today, I have to say will not be the product in the next years. So, the idea that we follow as a company is that at least It is the idea you can have is, that you provide a tool some kind of tool access to the VDR, and the tool produces the FDD report for you. Yes. And text will be there, and the analysis will be in place on a very unstructured data also. So. Okay. That is where we will end up eventually, but we will always be relevant to say hey the data is correct.</p>
23	<p>INT.: Yes. No for sure.</p>
24	<p>S1: To build trust and that is that is where we are still going to be in place but that is at least what I strive for that we move towards that direction.</p>
25	<p>INT.: Okay. Yes. Just to clarify I am not trying in any way to say FDD needs to go, and all the professionals can be automated.</p>
26	<p>S1: If you if you do not say it others will say it. You really need to think about the whole practice per se. And we talk about it all day long. How are we going to change business? And it is very interesting. Right. that it is really, it is not only a threat but a big chance for us as a company.</p>

27	<p>INT.: Okay so. Because the. what you just spoke about is more GenAI I would say.</p>
28	<p>S1: Sure. Yes.</p>
29	<p>INT.: okay. So, I am just trying to figure out yes.</p>
30	<p>S1: That is. GenAI.</p>
31	<p>INT.: Yes. Okay so if you do not have any other pain points or inefficiencies I would move to the most sensible tasks. So for me just to clarify sensible task would be well like the three ones of the generic process you described that are essential to the outcome of the deal basically and that have that are somehow susceptible for fraud for example I do not know if somebody sends you the reports and they are not audited that would be for me a sensible task because it gives potential for fraud. But at the same time, it is really important for the deal outcome. So are there any task specific steps within FDD where you say this is this is like high level important even higher level important than others because it can massively influence the outcome.</p>
32	<p>S1: It is I have not had the situation where I came across fraud what I normally see is that people lack expertise. Okay. one example from my experience we supported a company to acquire another company. And the target company it was a software as a service company. where you in this special to those companies? You have a model where you generate income on a steady base or revenues. but you can only record these revenues once you rendered the service. Yes, just think about Spotify. They get €10 a month or so and they provide you</p>

with a service. Right. And they are only maybe you can pay up front €100 but these are 120 for a year. And you can only show €10 a month because it is distributed. And that company had shown the 120 in the very first month. You know they received the cash and said It is revenues. And then when the buyer the first time integrated consolidated the financials of the new target company, they found out hey where are these revenues gone? We would expect them to come in the next 12 months. No, they have been recorded already before the deal was closed and they had a big hole in the first month which they then had to recover from. Yes. And those are rather the tasks that we look at is accounting. we have our pain points now especially in the context of international transactions. That is revenue recognition and that is also leasing accounting. And those two are not really harmonized across territories and also done incorrectly. One further topic is the valuation of inventories. So, if you what companies normally do. So, per German GAAP when you buy inventory if you, I do not know you are a car producer and you need to have some seats for your car and you have not had you have not sold any cars so far. You do not you do not produce them, but you only have seats on your balance sheet, and you take cash. It is active in Germany. You buy something cash and it is there in your balance in the working capital. and what companies then sometimes do they already record expenses as material expenses in the PNL which is incorrect. You can also only show them once you take those seeds into production and build a card. And that is also some really lack of expertise. But I would not say that is fraud. It becomes fraud when a company does this. no. Willingly. Yes. To. Yes. Okay. And I do not I cannot say if the company when we asked them hey what are you doing there in your balance sheet, they always say oh sorry that was a mistake. Yes. If they do it intentionally it becomes sometimes you with your common sense. Why would they record extra expenses for car seats in the PNL? maybe for tax reasons. Yes. You have a too low tax income then the tax authority. But that is not our turf. I mean yes.

33

INT.: Sure. Yes.

34

S1: But I have not come across these fraud issues, but I know where to put my finger into the wound. How do you say in German. Okay.

35	<p>INT.: Yes, but maybe, I need I need to rephrase a bit. I mean fraud would be the worst case. I mean we are not assuming that everybody is doing Wirecard things or something like that but also that deliberate fraud let us call it or maybe accidents or just bad effects in under. I mean yes bottom line.</p>
36	<p>S1: We get information from the lawyers that say hey we read the legal investigations or disputes, and they say they have not declared something correctly for taxes or I do not know that kind of stuff. And then you really get interested and take a look at these accounts. And if you come and say well that is that is been fraud or that is been done intentionally you really need to take another look at it. Sure. Okay.</p>
37	<p>INT.: Yes, that makes sense. All right. So yes, so much for sensible tasks. okay. So, for the end or the last question is more of an open part. So, I do not know did you get a chance to look into the PDF?</p>
38	<p>S1: Into that file. Yes.</p>
39	<p>INT.: Okay. So, you know I am roughly the background story and you are familiar with the concept of blockchain or tokenization.</p>
40	<p>S1: Yes. At least I once read wrote a not a paper but a seminar in university.</p>

41	<p>INT.: Oh yes. Okay great.</p>
42	<p>S1: But that is kind of. A couple of years ago.</p>
43	<p>INT.: Yes. I mean I think the high-level understanding will be whether enough especially because for this interview I am looking to your FDD expertise which is even greater if you are on top of that have blockchain knowledge. So yes, basically as I said in the beginning of the interview, I am trying to explore how the utilization of blockchain technology and especially tokenization could improve some FDD aspects or inefficiencies whatever it may be. That is what we are trying to find out. And after hearing or having heard what you have said I would just like to ask you to comment a bit on what you think about the whole matter whether you think there is some potential if yes where or if not why? maybe with regard to the aspects of security data quality efficiency and accessibility mainly if you have anything in that regard and maybe also the prevention of, I had three case studies at the beginning of the slides. I think AOL/Time Warner, Bank of America and Countrywide and HP and Autonomy, all deals that did not go as well. yes. I mean so the.</p>
44	<p>S1: I cannot comment on these deals. It is interesting to see what kind of mess they made but what I find interesting, and I had the question earlier before I had to look at your docent here is I mean. Going back a couple of years ago I had a transaction with I do not know how many papers that had to be printed. And there were two parties aligning on annexes to the contract of really a thousand pages or so and or two thousand pages and there were 200 docents or so and we did not know. Is that always the last negotiated version of the docent? is that the final? Is that the final docent? And what we did we created these hashes. I do not know based on which software was not blockchain, but we created a hash code that that we aligned on earlier. And then before we printed each document, we open the document, or we took the docent uploaded it to get the hash. And it was always the same. So, both sides were happy. It is the docent that has to be</p>

	<p>printed and signed okay. Yes. And obviously this is something where blockchain comes into play where you can. As I understand the technology you can have a 100% or 99.9% security that it that it is the correct docent.</p>
45	<p>INT.: Exactly.</p>
46	<p>S1: And that would obviously be a use case very important to apply. And one further aspect that comes into my mind is giving all this AI stuff and being able to easily create new docents and pictures and stuff that you need to be sure. Is that an original docent? I mean this the dealing of... what is the name again? Where you can buy like pixels of a picture.</p>
47	<p>INT.: NFTs?</p>
48	<p>S1: Yes. So NFTs if you need to secure or be sure that this is really the owner of that NFT. So, I mean that is also something where you would have to use blockchain I guess and cause of a transaction. So really interested. That is why we I wanted also to talk with you also and get to know what kind of use cases you see. And especially these two would be the ones that come up to my mind.</p>
49	<p>INT.: Yes. I mean those are for sure. some I mean I have some other maybe if you are interested I that that go a bit further let us say than basic tokenization of things. Right. In the end It is all tokenization but you can do different things with it. Let me just open my document on my thesis to find the right use case. but I can start talking anyway. So Brøck is a platform that is currently being developed by the Norwegian government. that is fully It is a blockchain platform basically. It is hard to find because it has all sorts of letters that I have never seen but it basically what it does is shareholder management via blockchain. So, all the small and mid-caps in Norway that are not</p>

	<p>listed publicly had problems with cap table publication. So, the cap table is basically all the shareholders in one big table. And to update these they brought all the small and mid-caps to this platform. And they can perform some of the let us say shareholder management operations on there. So that is that would be like another use case maybe for me It is where you can manage shareholder information delete GDPR data if needed. you can record shares share ownership exchanges changes in total shares stuff like that really easily. on top of that you can also look into this platform and get almost. I am saying almost because of computational time but practically almost real time data on balance sheets which is basically based on the fact that they have their whole accounting on the blockchain. So therefore, you can extract or compute the real time number of any statement you are looking for that is on the chain obviously. so maybe that is another little advantage you would get because you can instantly compute like the value for the for this instant or for the next ten. So that would be another use case. I think there could be interesting. I am not going to do too many. I mean I am sure you have heard that you can already buy and sell fractional assets overseas.</p>
50	<p>S1: Yes.</p>
51	<p>INT.: Like NFTs but also real estate art all sorts of investments. So that I do not know how interesting that will be though.</p>
52	<p>S1: That brings that is another part I think of M&A rather commodity trading I would say or not a real commodity. But if you it becomes kind of a new investment class. Yes. M&A these days is really characterized by people and being involved in the transaction. Big teams and if you look at these fractions of business or buildings etc. that is something comparable to ETFs. Yes. Which you can trade on your own account. But then I guess blockchain comes into play to really make sure that that window of the building is yours.</p>

53	<p>INT.: Yes. Yes. Exactly. To yes. To how can I say verify or validate ownership. That is the main the main point. Yes. Okay. two more and I think then we are good. I do not want to go too hard on your time either. so first one is there is a centrifuge. I do not know if you have heard of it. It is one of the biggest credit and lending or financing platforms that is fully crypto based. So, they do a full-on chain know your customer. They give out from their liquidity pools and so on. So that is happening and that is also B2B. So that that is one of the bigger platforms that works in that field. And then I have one that is a bit challenging, but I would like to ask an expert because I would like to get the opinion on this. So, there is a website slash marketplace It is called Acquire Fi. And basically, they say to offer It is a pretty young platform, but they say to offer the first and I am going to quote this here now first of its kind M&A marketplace usually utilizing blockchain technology and tokenization to basically do the whole M&A online. And I mean this obviously is highly risky and I do not advise this to any bigger company but is this something you have thought about or what? What is your opinion on this? I this is not a gun to your [head].</p>
54	<p>S1: Head to really get to. I have not heard of this before I guess but there are several platforms. I mean one smaller approach is. I do not know if you heard about car finance in Berlin if you know those guys. I mean they recently sold their business. And I mean I have always said.</p>
55	<p>INT.: Sorry I cannot hear you anymore.</p>
56	<p>S1: Can you hear me? Hello?</p>

57	INT.: I mean I can hear you very quietly, maybe the microphone input...
58	S1: Is it better this way?
59	INT.: Yes. No. It is better.
60	S1: So, a car finance It is people always say we do stuff digitally. Yes. We do your M&A process end to end on an autonomous basis. But M&A at the end of the day. When you think about billion-dollar business is important because a lot of money involved. Smaller companies SMEs are very important because normally, it is owner based. It is the lifetime thing for them and you they always want to have people involved in a way you cannot do it really optimized. There is and I am really you know I would be the first one to apply blockchain in M&A because I think there is so much more to do in digitization M&A. But I came to the conclusion that at a certain point people do not only want to have some digitized solution you can always use it as a tool, right? For certain aspects. For instance, deal origination bringing parties together looking for long list short lists and also doing analysis these or building preparing the teaser or info memo these expert aspects creating you know working group list all that what we had done for years redacting docents where I spent nights before. Yes. That is all stuff we can get rid of with these technologies for the entire M&A process. And I am new to this Acquire.fi. I will give it a thought a look later on but. I have the feeling that it will at least for the next 10-15 years be a business where you want to have people involved. Maybe it changes the paradigm but difficult to say.
61	INT.: Yes. I mean just maybe to sound off on that too. I definitely think the same. I thought the same before our call as well. I do not think the professionals will disappear at some point. I just think it will be a shift of less tedious tasks going to the computer and let us say

	<p>more responsible tasks. going back to the to the professional so that for sure. I think we are. Yes. On the same on the same page regarding optimization. Yes. But it will never fully be there. Or if they are not within the next ten 15 years just seems to be a little far out yet.</p>
62	<p>S1: And if you if you have a Robo-advisor for instance. Yes. I do not know.</p>
63	<p>S1: Also estimate they do asset management here, I guess. And asset management. Yes. If you I do not know are a very wealth high net worth or ultra net worth. Ultra-high net worth person. Yes. You will not go to a platform like this but rather you want to have a person that takes care of everything for you. And if you do not want to spend a euro or only €10 a month you go to Acquire.fi because it gives you some more expertise than you have from reading the newspaper. So, it will change business but not entirely.</p>
64	<p>INT.: Yes, that so far is that is my summary or my conclusion as well. All right. So, I think I have all my questions. I have one little quick fire round prepared. I just wanted to ask you to maybe quickly comment on the assumptions that I had in the introduction. Just your opinion from 1 to 6. It does not need to be way long. I will just share my screen so you can see what I am talking about. One second. Okay there we go. You should be seeing my screen now.</p>
65	<p>S1: Yes.</p>
66	<p>INT.: All right. It will go sharp in a second. There we go. so. Yes, maybe I will just leave the floor to you. Or you can take whatever time you like. I have time I do not know.</p>

67	S1: I only need to say 1 to 6. Right. or is this. I know you need to have a qualitative answer, right?
68	INT.: Well, how do you mean in what sense?
69	S1: First of all, you have 1 to 6 questions and I understand that I need to give like a school mark from 1 to 6.
70	INT.: Oh no. I am just a general like to each of the six sentences just general comments whether I do not know you agree disagree additions anything to enrich I.
71	S1: I Will answer those questions... M&A transactions are notoriously... Yes. Yes, they are. if you have the wrong advisors on your end because an advisor is focused on his success he wants to do as much transactions as possible and that makes M&A a very intense. And. They are but often enough too long and ineffective. All right. I go further on with the. Yes.
72	INT.: Okay.
73	S1: So due diligence? I would not say so. due diligence has if you once again are a good advisor, you have a due date where you work towards. And based on that you are very effective. And it is not the most time-consuming part. Most time-consuming, I would say should always be the equity story behind the deal having the rational in place and convincing the decision makers that it is a good and thorough investment because you can I do not know Google thousand studies where they always say that that people pay too much and not based

	on the report or valuation report but rather because people just want to make the deal. So, DD is a is kind of a tool but it is not the most time consuming and it should not be the one. But just a little.
74	INT.: Second follow up, since there it says one of the most time consuming...
75	S1: But compared to the commercial part and producing the whole rationale for the deal I would say It is not that long, but it is certainly somewhere between the middle and the lengthier parts. Yes.
76	INT.: All right. Okay. Yes. Perfect thank you.
77	S1: And point three. Yes absolutely. people should really see the importance of financial due diligence especially the earnings impact for them. And the post deal performance. Yes. You need to really see who the decision maker in the company is. How will performance be secured in the next periods? But just from an accounting perspective the example I gave to you before where the sales just were gone that can lead to a very bad performance just from a technical perspective right now. But in a DD report we are always providing you with risks or emphasized risks that could lead to a decrease of sales in the future because you need to assure that key person ABC needs to remain with the business. Yes. Or we see that key customers have a change of control clause, or they will move to the next party because you will now be a company from shareholder ABC that they do not like etc. So. That is something that we also address in our reports. Okay. so, in point four. I am not really sure if I can answer that really thoroughly because I am not really aware of the blockchain movement. I understand that it is a very helpful technology that will become even more important with more data in the world now being available and also this technology that creates more data which needs to be checked for correctness but I am not aware. if institutions or

	investment banks or we do not work with blockchain technology at least in our department we do not. And I do not see investment bankers using that technology in the M&A world, but it will hopefully come one day.
78	INT.: Okay. But do you see maybe within the big four any efforts to tackle blockchain applications for enterprise context?
79	S1: Sure. But those are all more or less our advisory folks who are digging into that matter helping companies possibly with their data management cloud transition and that kind of stuff. But from the just from the from the technical set that we have in our departments and tools that we use we do not use it these days. but yes, it will come into play I guess but not presently.
80	INT.: Okay. I am asking and this is not to create any sense of urgency because one of the one of the Big Four's, EY namely, has relatively wide offer on blockchain applications for business operations supply chain accounting and so on and so forth. That is why I asked from what.
81	S1: I hope our folks have it two but I am not really here in our office we I guess we have them in supply chain management consultancy and that areas there should be a place elsewhere where we do some things but not in the normal deals practice. Yes, I do not see it.
82	INT.: Not necessarily. Yes sure. I mean this needs to be developed first but I am just trying to phase out whether the big four are actually looking at it at least.

83	<p>S1: Yes. But I have to ask Petra, our CEO... Point five. Yes. I mean they surely can. And they often use techniques that I know from our fraud investigation teams that are not part of the deals practice. They are part of our audit folks. But yes, they use some techniques, and they certainly can be altered if a person wants to change it, he can if he has discretion over manipulating the financials and in our transactions I first of all believe in that that the data is correct. And if it comes to my attention that there is something incorrect with the data, I normally only see that accounting as I said is incorrect because of lack of expertise. Okay? Okay. Information asymmetry. I mean this is a write living with information and making use of it and creating different views on information not incorrect information but playing around with information having more transparency than others. it can certainly make the M&A deal negative but it is always the view. Yes. If you are on the buy-side, I think it is more critical when you are on the sell side you sometimes favor one buyer one bidder and then give them more information. And there is certainly asymmetry between the parties. And that is something which is explicitly managed by the sell side. so certainly, yes negatively but also very positively.</p>
84	<p>INT.: Yes. Yes. It depends on whether you are selling or buying, I guess. Absolutely.</p>
85	<p>S1: Yes.</p>
86	<p>INT.: Okay. Okay. All right. So, from my side that is the content of this interview. for me it was super helpful.</p>
87	<p>S1: It was also very helpful for me. I mean okay cool. If you have something finished one day maybe you can send it over. I will take a look at it. Yes, for sure for sure.</p>

88	<p>INT.: I was about to say that the next the next steps would be. So, I will have a couple other interviews. There is another one today. there is also some planned with the blockchain experts to have a bit more tech side of things. And the most body of the work is done so I mean I will for sure let you give you a smary of the thesis before I hand it in. That was always my plan. And then when the whole. Book let us say is finished. If you want a full copy I can. I will gladly provide one to you. Yes just.</p>
89	<p>S1: I mean go ahead. You do not have to share it upfront with me. Just focus that you get a really good mark and. Yes. And then if you if you find the time send it over to me later on. And but first of all the best. and yes. Interesting topic. Thank you. And. Yes. How much time is there left when you have to end it?</p>
90	<p>INT.: well, there is not a final date. The next possible date would be the 12th of February.</p>
91	<p>S1: Okay. Well then.</p>
92	<p>INT.: Yes, it should be soon. I am aiming for that one.</p>
93	<p>S1: Then all the best. Good luck and talk to you then.</p>

94	INT.: Yes. Thanks for your time. if there is anything on second thought you want to have anonymized whatsoever let me know. I will gladly. Yes. Black out anything you do not want in there. So. Yes you.
95	S1: No. Sure. No worries.
96	INT.: So yes, thanks again for your time. I will let you know as soon as I have some output to present.
97	S1: Brilliant. All right. Thank you. Have a good day. Bye. Bye.

1	INT.: [Inaudible]
2	S2: [Inaudible]
3	INT.: I am going to switch to English now that we are recording. Of course. So, first, we just talked about it, so maybe, are you fine with recording? If yes, if you do not want the video to be shown, of course, I can only keep the audio file. But generally, are you consenting to me recording this session?

4	<p>S2: I am okay with the recording.</p>
5	<p>INT.: Perfect. So then, thanks for your time and for making time more specifically. so I have, I mean, I sent you a little introduction message, but I think it would be a good idea to make a little introduction now as well. I am Léo, I am writing my master's thesis, in UNIPD and with the company mm1, for which I am working right now. and the topic of my thesis is whether or how blockchain technology can alleviate some of the issues, if there are any, in M&A transactions. And I am looking specifically at the due diligence process, the financial due diligence. more exactly. So that is the key content of the thesis and of today. I have prepared since this is semi-structured, I have prepared some more open topics. Each is about. I planned about ten minutes, if that is fine. If we are quicker or you have less time than, perfect scent, we are good. All right, so the first, and I think, we should start with that. The first would be a little introduction. I spoke about my thesis. Now, maybe you can give a short summary on, who you are, what you do.</p>
6	<p>S2: Of course. So, my name is [Name]. I am from Italy, from [Italian City]. And I did the same university as your that you are doing right now. I have been studying with, Buttignon, and Campagnolo as well. I have been working in the M&A sector since 2016, before I was, business controller for an Italian company. And I have been working in the US for a year or so. so since 2016, I, I have been in the environment of M&A and my role is, manager of transaction services at [Big Four Company] right now. I have been working for price, [other Big Four Company] before in Italy. right now, I am in France. and precisely I am in [French City]. [French Subsidiary of Big Four Company]. So, since 2020, and I am a manager so far. So, I am specialized mostly on the infrastructure, business. So not tech. I have done probably one deal for in the tech industry so far. It was in 2020, 2021, probably. since then, I have been involved in more oil and gas and, mostly infrastructure deals. so probably that is it. My side.</p>

7	<p>INT.: Perfect. So, I think that is good for an introduction. So, maybe leading to my first topic, I am trying to find somewhat of a, of a blueprint for, let us say a more generic, financial due diligence process because this is somehow information is less public. obviously, I am not asking for any secrets of some sort, but if you could, comment out or detail a little, the typical approach, the step-by-step approach, I mean, I have talked to other experts. I speak a lot about valuations, about debt. so yes, maybe you can just detail out the, let us say, generic financial due diligence process for me.</p>
8	<p>S2: There is never a generic financial diligence in the sense that you have the market, that it depends on the size of the company and on the type of the process. So, if the process involves, a bank, that is leading the process, notably, Rothschild or Barclays or other, financial institution, that are in charge of, of the process. there is a VDR. So, it is more structure, the process. and in the VDR you can find out. So, let us start between the three different types of financial decisions that you can have. You can have a vendor diligence, vendor assistance or a financial due diligence. And then if you have, a buy side due diligence, you can have the vendor diligence in front of you that that was prepared by a competitor or not. So, I am [Big Four Company], [Other Big Four Company], can do the financial diligence on their side. So, the figures are already, let us say treated. So, the number have been, let us say adjusted and everything. And we are going to do a review on of the report on our buy side process.. So, we started with a bi site, due diligence with a vendor diligence in front of us. So, with the information that is clarified, and everything is adjusted and. With, with a team that already been working on that. For several weeks or months or maybe years. So, it happens sometimes., and then you have less structured deals, notably with, small size companies. And there is no financial adviser or sell side adviser, let us say so. No Rothschild. No, any bank or more, let us say a little bank and little institution that are leading the transaction. Taking the success fee.. so, you can or cannot have the VDR in this case. So, you need to write an email asking for, basically we have our, our customer, we need to deal with our customer and start processing by asking a series of information. Request list. This is the basically, the main, the main docents we are going to sell, as preliminary information request list, depending on the skills of the company, you can have the information within a couple of days. Even less than that sometimes or several</p>

weeks, depending on, how structure is the company that you are acquiring as a customer, client, or our client and how the, the these, target is, structure internally. So basically, that is it. So, we have been talking about the information request list. We are talking about the process with vendor diligence in front of you. But if the process is for small companies, you do not have the vendor diligence. So, you are going to do the work. You are going to do the work, meaning that you need to take the account and decide which is the account that is going to be used. Is there was there an audit of the company or not?, that is going to be different because you will have or not some confidence on the on the figures that you need to look at. Because if there was an audit, notably a 31st of December for 80% of the company in the world or, other, closing date. you are pretty confident, depending on the of course, the institution that did the audit because there is a declaration. The audit went well., we have the information. There is no opinion on the figures that were, reported. otherwise, you have some general ledger trial balances to trying to reconcile the trial balances with some more, specific figures that you can find, of the company, public figures or not. And these are the most dangerous, let us say cases in our, due diligence. Because if you do not have an audit, it is going to be difficult to understand which type of, information you are looking at. and this is why the most probably I remember some question about that that you sent me yesterday, the most inefficiencies, Pain points challenges is reconciliation, reconciliation with audited account and reconciliation with public financial figures. So that is a reliable in our case because, I want to stress the point that It is not an audit. We do not do audit. We do, due diligence. Yes. In our, in our work, meaning our analysis go beyond the audit figures. So we take the figures and we are going to analyze if there was, let us say window dressing of the, of the numbers that they are presenting, stretching of, payable during , yearend period or year end and half, half year period because of covenant that needs to be, to be respected for, for the financing.

9

INT.: [Inaudible]

10

S2: [Inaudible]

11	<p>INT.: Maybe one, one thing because we are moving into the, the second topic and, for now, I, I am still looking at, to, to find like, key elements of the more general FDD process. I mean, for sure, it varies from deal to deal and from size to size. But yes, there should be key, some key elements that you.</p>
12	<p>S2: Want out of the process. Yes, you want the process. So, information request list. Then the management is going to come back with the information they collected on all the topics. So PNL balance sheet and cash flow topics, notably, plus all the potential quality of earnings and quality of depth adjustment that they can find themselves, or we can help them to find some adjustments by analyzing the docent that we provided to us all, the docent must be reconciled with the audited figures. If there are audited figures, and this is internal work., then then you start with the normally there are some interviews with the management asking questions. So, you are going to provide them with an agenda a couple of hours, one hour, three hours, depending on the size of the company, the size of the deal and the time of the management. Of course. it can be done through, calls or through, email exchange. so, we are going to collect information. you can have one, two, three, four, depending on the timing of the due diligence that need to be done. and it can be like our client, if you are by side, it can be, present or not in the Q&A sessions that we are doing. depending on the private equity, notably, because I forgot, I forgot that, but you have both private equity and corporate due diligence. So. Sure, if there is like multinational company, of course, if it is a vendor diligence, you are working with the management that is providing the numbers., you can help the company to, to provide the numbers to the market. And you are not putting any reliance. This is more technical and more legal, let us say work. And if you are not doing that, you are doing a vendor assistance and the vendor due diligence. Some market, like Germany, are more vendor assistance and vendor diligence are really small part of the market, other market like the French market or the Italian market as well. It is mostly vendor diligence, let us say type of contract. there are assurances about, limited assurances, kept assurances about the job that we have done. it can be between, I do not know, three times the, the fees that, the, the client paid us or one million, €2 million, depending on the company, of course. . Any questions so far?</p>

13	<p>INT.: No. I think for the process. That is good. That was it was good to clarify in like a speedrun of it. That is good because I do not have that kind of insight privately. But it leads well to the second question with which you started earlier. So, now that we cleared up the process, looking at pain points, challenges and also the most time-consuming tasks. So maybe if you can elaborate on these factors.</p>
14	<p>S2: Time consuming task. I will start with time consuming tasks because actually, this is quiet. I want to stress this topic because when you need to prepare the numbers and the figures and collect all the figures, it depends on. So., it depends on the type of process where you are. Again, it depends if the company is audited. So, if the company is audited, you know that the management of the company has already done some, let us say, pre required job with the auditors. So, the figures that you are looking at are quite record are reconciling quite well. Or they can be like to easy to explain the reconciliation items between what is audited and the management reporting. Because of course there are different type of figures that we are we can look at.. In a due diligence., so the most time-consuming activities are. Reconciliation. Then. Cleaning of the data, because of course, there are many people inside an organization, normally large organization, that take, Excel files and you can have Excel files that actually everything is, exportable to, to, to an Excel file or CVS file or CSV file, notably ERP like SAP. do that. . And so that is a data collection. Probably this is the first one. So, like the several weeks that can take for a small company to collect all the data and you can have like paper data. And if you have paper data you have the crunching of the numbers inside an Excel. This is time consuming. Second one, reconciliation with the audited figures or the figures that are provided to the tax, organization in Italy, for example. number three data reconciling and then number four, data analysis, because you have different type of analysis that you are doing depending on the industry that you are working on. Of course, infrastructure industry is different from retail. That is different from bank and insurance industry different from television different from whatever technology. So, depending on the type of industry, you are going to do some type of analysis that can be less or more time consuming. and that can require more stuff or less stuff, depending on the insight that you want to have. of the company, normally private equity fund, are asking about precise type of analysis they want to do through us. So basically, they are, let us say, externalizing some analysis to us and they are doing other parts</p>

	<p>of the analysis themselves, or they want to check if they did right, or they want to check what is ours. Let us say point of view on that. So, we are at four. Five with the data analysis. What else? Basically, everything that is not, automatic. So, we have some tools, in the, in the Excel and the PowerPoint that are already helping us with the, let us say, connection between Excel and PowerPoint to prepare the, the report. Depending on the company you are working for. There are different tools, but basically this is what they do., otherwise,. (...) Let me think., so we will talk about that. And then you need to write the report. But this is just. I will say expertise, meaning that once you've been writing like several reports, it is going to be fairly automatic what you are going to say about the company, because I want to stress the fact that since we are in a context or in a basic context, we need to be. Let us say impartial. So, we are going to look at the figures. And our report are in particular in a context we are not, preparing like a quality. You know, what quality of earning is.</p>
15	<p>INT.: Sorry. Quality. What? Quality of earnings.</p>
16	<p>S2: Quality of earnings.</p>
17	<p>INT.: Yes. Yes.</p>
18	<p>S2: Okay. So, quality of earnings. Cannot have like only positive adjustment for our client if you are in DD if you if you know what I mean. So, it can be it should be. It is impartial because you are not taking part. you are not taking any success fee., our fees are not related to any success of the deal or. Or not., we are going far from the question, I guess, but.</p>

19	<p>INT.: No, no, I think that was that was a good comment to add because, I mean, I have heard a few things, but I do not know everything in that level of detail, so it is good for me.</p>
20	<p>S2: Please do not hesitate. Sure.</p>
21	<p>INT.:, okay. So is there. What struck me was you said, anything that is not automated. So, what is not automated?</p>
22	<p>S2: The,. Everything that our teams do., basically, the mapping of the trial balance to, to create what we call the balance sheet overview, PNL overview, cash flow overview. All the everything. There is nothing that is automated, actually meaning, the only thing that is automated is some formatting, probably, okay. in the Excel, otherwise, everything is done, on a, on an Excel spreadsheet. So, there is nothing that is automated. you can be you have like some tasks, for example, some pre, pre-compiled not sure pre-compiled information request list, for example.</p>
23	<p>INT.: Okay.</p>
24	<p>S2: Depending on the industry, but nothing specific. Meaning all the analysis that can be done and should be done depends strictly on the company and the history of the company and the industry., and every time you need to start from scratch. Okay.</p>

25	<p>INT.: But I heard them. Or what? Maybe. Let me rephrase. I have thought to have understood that you see some potential in the in the reporting in general. Is that correct? In the generation of reports. So, of the final due diligence report, for example.</p>
26	<p>S2: The standards, you mean.</p>
27	<p>INT.: The standards. I did the final, due diligence report that you hand in. the way I understood you is that there is some potential to automate parts of that, because that is basically just putting the info that is there together.</p>
28	<p>S2: Just there is just, a tool that enables us to, to link the table that we, we do in the Excel spreadsheet into the PowerPoint. And then if you are going to change the table in the Excel spreadsheet, but it is really limited, very limited. Okay. You can double click and update the table, but it depends on the formatting and several stuff. Meaning, there is. No analysis that can be done in an automatic way. Okay. It is not like, you can put, like, all the docents that you received from the, the customer. And there is a computer alone that can work on that, probably artificial intelligence.</p>
29	<p>INT.: All right. And so, the way I understood in the, in most of the cases you have audited numbers. So therefore, you just... Basically, take them as true and do not check for validity and verify them. But in the case of smaller companies, the way I understood it happens that you check for the numbers, and you do need to check it. You need to check. Okay. So, in that case there would be some benefits.</p>

30	<p>S2: On the, on the, on the threshold, on the threshold of the mistake. Meaning if you have a small company, the threshold, of the mistake is quite, quite high, meaning, that the, the, the small account, the accountant that is putting the number there is no, no audit of the number that you put in the roads. So, you are going to do that.</p>
31	<p>INT.: Okay, so you have to double check to avoid fraud and other like let us say accidents or risks. So, this kind of leads me to the second last topic, regarding sensible tasks. And for me, a sensible task is anything that either affects the deal performance or the deal outcome in a major way, or any task that can be susceptible to fraud in some sort, whether deliberate or by accident. But ...</p>
32	<p>S2: A deal-breaker?</p>
33	<p>INT.:, yes. Well, not necessarily. I mean, it does not need to be a deal breaker. I am just more worried about the task from a process side of things. So, what are like, essential figures, outputs that that, yes. Cannot go wrong or that can be manipulated in a way to maybe be misleading. Does anything come to mind in that regard?</p>
34	<p>S2: A many things. Inventory, for example.</p>
35	<p>INT.: Okay.</p>

36	<p>S2: This is the,. Or you have actually, since we are working on the EBITDA, all what is not cash in EBITDA should be really, looked, actually, you are asking me about my some sensitive, knowledge meaning of the.</p>
37	<p>INT.: Yes. Well.</p>
38	<p>S2: No, no, I understand, but actually, you have all the non-cash items in, within the, within EBITDA that you need to look at research and development and inventory is not non-cash is highly , let us say, you can work on the inventory, depending on what you want to the outcome to be, you can work on that. Let us see., and I saw some cases as well. or provision as well, depending on the provision, that provision policy that you are doing when, when I am talking about provision, I am talking about provision for risks and charges. or. Well, I already talk to you about the stretching of the DPO meaning a payable. (..) When I say a non-cash item with the EBITDA is going to, it is going to list all of that, plus all the, let us say,. Fraud can be done, at cash level.. That right now are more... Once you have done the bank reconciliation in a proper way, you are pretty sure that is going to be. Correct the cash that you are presenting in your report.</p>
39	<p>INT.: Okay, but sorry, I did not want to go to too deep in in in the secret. So, I think we leave it at that., the inventory part was something I actually heard somewhere else, already. So that was that was enough information for me there., okay. So that was.</p>
40	<p>S2: You have plenty, plenty, plenty of way to.</p>

41	<p>S2:to play with inventory.</p>
42	<p>S2: So, you, you can do like a thesis on, on the inventory, to be honest, because I saw many things and I saw many like one private equity fund that, was, let us say the EBITDA was too high and they bought like, too high EBITDA. with respect to what was the real value of the company. And there was a problem, to be honest, like the overstocking. And, I have been working as well with, with a partner in Italy that was doing like, cash EBITDA adjustment that I have never seen before, because of overstocking of material that was not sure to be sold right after, retail sector is going to be really interesting analysis that you can do on the retail sector, notably on the pre-sale and after sale, sales and revenues and margin on that.</p>
43	<p>INT.: Cool., so I have to stay within time. Sorry., so. What else we have left., more switching topics, maybe. how familiar are you with, blockchain and tokenization in general? Not at all.</p>
44	<p>S2: Not at all. I understand the concept, but I am not so familiar, to be honest.</p>
45	<p>INT.: Okay, that is the concept is well enough., I mean, from what I heard so far from. From you., It would be in more or. No, sorry. Yes. No, I am going to ask an open question. I think that is easier for me., so with regard to especially financial due diligence and, and the pain points we spoke about in the sensible task we spoke about, do you see any area of improvement through digital innovation? So, in my case, obviously that would be either blockchain utilization or tokenization of some assets or asset classes or liabilities.</p>

46	<p>S2: Yes, I mean to be honest with you, I, I do not know, I think that probably AI can, can help on the optimization of the process, to be honest, tokenization., I do not know. I saw an after you, you wrote me, I read an article of Bain and Company, about tokenization, but, but I do not know. I do not know, because to be honest, in our case, is really, let us say a case by case, job.</p>
47	<p>INT.: And but would you agree that let us say, information to have the, the certainty that I, the version of a docent is the newest or, for example, that a docent has been originated by a legitimate person., is that always given in your everyday business? Because from what I have heard from other experts, they say that they see they see some potential in some niche areas. Something like, as I said, version timestamping or identity verification, validity of docents, stuff like that.</p>
48	<p>S2: G do like the, let us say, the job of data validation, of an auditor, for example, in an automatic way. Yes, probably. This is the advantage that I can see on that.</p>
49	<p>INT.: Yes. The question is, would you, as a financial due diligence, professional benefit from that, or would you say it is more of a benefit for, let us say, the accountant or the external auditor?</p>
50	<p>S2: Everything that is going to be, that is going to put like,.. let us say a stamp of reliable data is going to be useful for us because we do not need to check on that again, it is going to save us some time of course, otherwise we need to check on that and reconcile on that.</p>

51	INT.: Yes. Yes, I mean...
52	S2: And reconciling the item with what is publicly available, for example. Yes, I do not know if my answer is...
53	INT.: No, it is I mean, the problem is, to be quite frank, I have a trouble asking the questions in a semi-structured way because I, I am not allowed to be too leading. And that is why I am looking for my words really carefully right now. But yes, the answers are helpful., so that is regarding, let us say, data validity because actually.
54	S2: What the blockchain, what the blockchain is going to. Is going to, let us say, bring to the M&A sector in your view..
55	INT.: In my view, it will enhance transaction by minimizing stuff that is time consuming. So, for example, checking that the version is the newest, checking that the version is really sent by verified person A to verified person B, also you do not if you have all. Imagine you have a VDR on a blockchain, and I am sure most of the VDRs are currently trying to do it or doing it. If you have everything on a blockchain, you do not need to give out credentials. People either have it or not. The system will know by itself whether you are entitled to see that data, and you will not be able to, or you will not even be needing to download data because everything is always online, on chain and at the same time secure and at the same time public. So, you could theoretically do lifetime, lifetime real time calculation of. Cash flow statements, for instance, I do not know. I mean, right now you are reporting on an annualized on a quarterly basis, I am guessing for most of the non-EU countries and.

56	<p>S2: Quarterly half year yearly depends on the company.</p>
57	<p>INT.: But not even close to weekly, I guess. And with a public blockchain you could do that. You could check out a number in real time frankly is quite impossible. But let us say within ten you would have the current number. And that is something where I would, for example, see a benefit. Obviously, this is not only M&A related, but also more of a general business application. But, yes, that is why I asked because I within my work see some development in this direction. And, yes, I am just curious to see whether the, the wind...</p>
58	<p>S2: Example, let us take, let us take like, (..), a financial department of a company as small size company or a mid-sized company, let us say, or even a large size company. Does not matter., you are going to have the accountant that is going to record the entry for the SAP system. that is going to create, let us say, data point on the blockchain. I am not really sure how to speak about the blockchain, but, whatever, like a docent for a blockchain. So, the docent has the, let us say the signing of the accountant that did the data. But the data need to be validated. So, so I guess that. How can you validate? Because actually there is a long process to validate the data. And then people go back and make changes. And notably, even the auditor goes back on some opinion that they did on previous year and make changes. What is going to be like the like the, the advantage of the blockchain on all of that.</p>
59	<p>INT.: For one, for example, it can do reconciliation by itself. Since every transaction is recorded on that blockchain, you could automatically see, prove, or disprove whether a transaction was a possible be. Lawful or non-fraudulent in a matter of seconds. You do not need audit because it instantly audits itself by computing all data that goes into. Yes, in an in and out the company. But that is maybe a bit off topic. I am not sure.</p>

60	<p>S2: No, everything that is going to provide information more quickly is going to be an advantage for us. So, if this blockchain technology can add value in terms of timing, is going to bring value to us because of course you have many start and stop the processes and you have the stuff that was planned to be in charge of this, this project. And then you do not have the stuff anymore because they are, so yes, everything that is going to work on the timing and reliability of the data is going to be some value. It is going to add some value to, to our companies.</p>
61	<p>INT.: So maybe just to give a like a little a little idea. e y so I am sure you are familiar with the UI., have launched their own blockchain based protocol is called nightfall. And nightfall is, is basically allowing them to handle any kind of business operations, but also transactions on their blockchain network. and I had read the Ethereum Business Readiness Report that came out in June just recently, and they say they can handle between 40 to 400 million transactions a day within their network and plan to scale it up to 4 billion transactions in a nearer time frame. Just to give an idea of how massive amount of operations this already is, when you when you.</p>
62	<p>S2: When you talk about transactions. Sorry just to forsake of clarity on my side. What do you mean?</p>
63	<p>INT.: In this case it can be payments but also, supply chain, goods movement. Because they are using this tool for several things. One use case is as a payment platform. So, imagine PayPal basically with extra technology. But it does the same thing. And another use case is for example traceability of supply chain. So, goods that are being traced or being placed in big warehouses and replaced and move to other warehouses and so on. So, to trace that you could also use blockchain. And basically, each of these things would be regarded a</p>

	transaction. When written on the chain. So that is why I said operation is maybe the better word. But yes, any transaction is an event, basically. Okay, okay.
64	S2: Understood., yes, I confirm what I just said. So, everything that is going to.
65	INT.: we are almost at the end. I have,. Two more little things. So,
66	INT.: Trying to rethink my phrase.
67	INT.: I mean, no, I think we are good. the last thing. The last thing, I would like to do with you, it is it should be fairly short. Is I have a few assumptions. I already sent them on my, on my pdf, the introduction pdf.
68	S2: Otherwise, I can open that on my side if you want.
69	INT.: Maybe I will make it easier. Yes. No, I got it.
70	S2: Okay.

71	<p>INT.: It is on page three, and it is, basically the core assumptions that I have made coming into our interview. Basically, this is before I spoke to any, any professionals. So, I am trying or looking to validate, enhance, enrich whatever is there. You should see my C screen in one second.</p>
72	<p>S2: I can see I have that in front of me. So, I am in a transactional, notoriously lengthy, and somewhat ineffective.</p>
73	<p>INT.: So, if you could just comment briefly on each of these, whether you disagree, agree, it does not matter. It is just, just checking, the opinions on professionals. I will say.</p>
74	<p>S2: Some M&A transaction are lengthy and somewhat ineffective because, most of the cases, M&A transaction when you have and this is why we do VD, you had a team that is already worked to prepare the numbers, and that cannot be, done by any, I am not sure that can be automated. This, this type of process. So, this is why we do VDD. We prepare the numbers, and then we can discuss the number with a selected team of people that are working on a diligence. So, I will say that probably., is small and mid-sized and, not organized [Companies]. Well, let us say that there are some M&A transactions that are lengthy and somewhat ineffective. I would not say all of that., due diligence is one of the most, time consuming and therefore costly phases of the whole process. So, the whole process, the whole process. is not the only one. again, it depends on, again, the type of process, if you have, private equity fund that is acquiring a company, you cannot like take it cannot take more than three weeks, four weeks because they have, non-binding offer to be submitted. For example, right now, they open the VDR today for six, 5 or 6 bidders of a process that I am, on, vendor diligence side. And the non-binding offer are expected by March the 1st. So, like less than two months and they need to review. Six diligences, I guess. Yes, six due diligences by</p>

	then and had all the Q&A session done in six weeks basically. Okay., so it depends on, on the actor that are employed in the M&A process.
75	INT.: But if, if maybe you could generalize on, okay, obviously if everything is prepared, but I do not know what is the most common case, assuming you have to do that. The most common process. Would you say due diligence is, for example.
76	S2: Just to, to, to be precise, due diligence. You have many types of due diligence. Are we talking about financial due diligence here or because you have environmental decisions. Labor.
77	INT.: We are talking mostly financial due diligence here. Yes.
78	S2: ... the most costly phases of the process. I am not sure this was the most costly one, because there are, like, the organization and the negotiation, process that is way more costly. And even the legal is more costly, time consuming. I cannot compare to, to, to or to the rest of the phases, to be honest, because.
79	INT.: Okay.
80	S2: I cannot compare., I am not I am not really sure it can apply. It can apply to some due diligence, but not to all of that., especially with rushed and flawed financially diligence can lead to bad post-deal performance... It is difficult to say that that was because of the due

	diligence, to be honest. Meaning some in some cases, in some cases, notably in the case of what was the name of the platform that, went bankrupt like some months ago, by the crypto,.
81	INT.: FTX.
82	S2: Exact., so that in that case, they did, really bad due diligence or probably not even a diligence. So, and that was a really bad mistake. And then I remember in your introduction here, you were talking about some cases of due diligence that went bad. But I will not say this is a normal, way of making the diligence. For example, for us, there is like an internal process, meaning people are preparing the data. Data are reviewed by a manager and then a senior manager and then a director. And then there is a partner that is saying the last word, and the partner has several, let us say, a project or stuff. So, and for the really big processes, there are many two parts. There are even two partners that are looking at this diligence. So the number and the expertise of the partner.
83	INT.: ...
84	S2: We can lead to a qualitative type of work and the possible performance. Well, all the due diligence that we did in 2019 and 2020 have the Covid. You cannot say it was because of the diligence that the performance was bad. To be honest, in some cases, like the case that I was talking to you about before the inventory. Well, that is difficult to spot, to be honest, because you need to work on the numbers. And if the management is not collaborative enough, you can erase some like some points and some disclaimer on the report saying we could not work on that because the docents have not been provided by the management and the others. It depends on, you know, people, if they are collaborative or not.. But on the sentence how is written in the case where the diligence financial diligence was done not correctly or

	<p>rushed?. (...) I am not sure It is going to lead to a bad performance for the private equity fund. Because the value was not the one that was included in the enterprise value. Or in the net, just in debt evaluation and the SPA agreement, but not the performance of the company. That was just.</p>
85	<p>INT.: Okay. Yes. I mean. That is maybe I did not phrase that correctly enough, but the way I understood you is in case It is not done, the let us say KPMG way, then it could affect ...</p>
86	<p>S2: Not It is not KPMG way. It is the standard way to do due diligence. price [PwC] is the same IT advisory is the same. EY is the same. And to be honest, Deloitte is the same. It is not It is not just a KPMG is like the specialized actor of the, the, the, the industry that are doing the diligence in a, in a formal way that is review., institution. Can I go to point number four? Okay. Institution. Never recognize blockchain technologies potentially implementing this case. (6) Well, I agree with that. If,. If that can help. As I said before, if it can help with the timing or the reliability of the data, it can of course help with the process. I agree with that.</p>
87	<p>INT.: Do you know of any blockchain or audit projects at KPMG that that you want to mention, or you have in mind?</p>
88	<p>S2: No, I do not have that in mind. But I know there is a department that is starting to develop right now since 2021 or 2022, probably, dedicated to, to all of that. But I cannot tell you more than that.</p>
89	<p>INT.: Yes. They are. They probably have their own office, I guess. Exactly.</p>

90	S2: Their own floor.
91	INT.:
92	S2: In traditional accounting, all the data records can be tampered with. (...) Westerns enable accounting fraud. (..) Yes, but the fraud should be verified by the auditor. (..), and.
93	INT.: Well, if again were to be, let us say a bad actor, he could still temper them. And nothing is making the data unchangeable. Or is it?
94	S2.: no. Nothing can make the data unchangeable. But the way that, for example, audit procedure to verify the,. Inventory valuation. There is a procedure that you are comparing to the previous year and to the industry of how the industry is doing for particular industry, doing semi component for a car company, I do not know, they are checking within the industry. So, let us say, have data point to, to compare the value of the inventory this particular year. another example can be, to check the, valorization, the valuation of, an internal developed software with, with the same type of software you can buy in the market, and then you can reevaluate or evaluate, evaluate that in you. Balance sheet because you were recording that at, not fair value, but value that was like your R&D costs that were capitalized during, you know, ten years. But actually, the value of the software you created was, was not, I do not know, ten million, but it was like 2 million or even 10,000, I do not know., so audit process is doing that in traditional accounting. what I can see, (...) Still if. (..), all the. (...) It depends on, what are the rules we are playing with, basically.

95	<p>INT.: Yes. I mean, this is, was more of a general question. I am just assuming that theoretically, you could even as an auditor, if you wanted to manipulate data to be to conduct fraudulent activities, whereas with., immutable systems such as blockchain technology. You cannot change the data. That is the that is the fact. So, you do not really need to double check and check with previous crises of a peer group.</p>
96	<p>Okay.</p>
97	<p>S2.: okay. Symmetry. Symmetry., this negative, that is for sure, but that is negotiation. So, M&A is negotiation like, purchase and sales and purchase process. So, does that. Yes. You have the SBA that is going to probably I agree, I tend to agree with the fact that that can help in the SBA process. So. Between the, on the leakage, for example. Well, there are some, some concept of leakages of, working capital, for example, that you can have in an SBA, and that can help to verify that during the six-month period, between the closing date and the, the signing date and the and the and the closing date. You are not losing any value in this transaction that you just, made. So yes, I agree with, with the sentence number. The sentence is a correct sentence.</p>
98	<p>INT.: Yes. Yes.</p>
99	<p>S2: Number. Right.</p>

100	<p>INT.: All right. So, thank you for this quick round., yes. I think for my side, that was mostly it., maybe if after the time we spoke now, you could give like a final comment on maybe what was interesting to you or where you see potential. What would even if something I did not say something that would be interesting to, you know.</p>
101	<p>S2: To be honest, to be honest, I am interested in, in seeing and in, so first of all, I want to I want to have a look at your thesis. One. One for sure. Yes.</p>
102	<p>INT.: You will be notified when it is handed in.</p>
103	<p>S2: Once you have done that. And I want to understand what are the implications in my in my industry. I know that is, to be honest, and I cannot see a really different way of working, so far, that is going to be more automated, as, due diligence process and due diligence report to be done. But if there is going to be like some saving in terms of times and reliability. So check to be done through the technology that I can see here I am, I would be really happy to, to, to see that and to work on that and to work with that because everything that is going to save us some time is going to be like free time that we can employ the otherwise, of course. Sure., that that was my comment, I guess. So I am really,.</p>
104	<p>INT.: Yes I mean.</p>

105	S2: Looking forward to seeing the, the result of that.
106	INT.: Yes. So, to maybe to just run this up, I agree with you. I think, it is not about, eliminating some type of professional whatever. It will only free up time of doing annoying stuff and do more important or more responsible stuff in or tasks in, in that time. So I think.
107	S2: You can apply that if you want to, more the audit sector. Yes. Because I think that in the audit sector you can find. (..) But you can. I do not know, because actually they are doing many, many tests that are like always the same type of tests. So but and.
108	INT.: I am glad you said it because, you are now the third person I speak with that is strictly like a financial due diligence professional. And the more I talk to you, the more I realize that since you do not need to necessarily need to validate the accounting data, validity is not as important to you as I would have thought in the first place. I thought the financial due diligence takes over when the decision comes in okay, and checks from A to Z, but as far as I understand you, you go more into the whys and how is and you asse or you just take the numbers that you get for granted and correct in some way. So, so the let us say benefit. The main benefits I see regarding data security, regarding transparency and all that stuff is probably more, more audit related, which is correct, good, and bad at the same time for me. But it is always good to learn that. (..) Yes, I.
109	S2.: I agree on that. To be honest, I, I do not know, they were from big four companies. the other, interviews.

110	<p>INT.: That one was, [German Subsidiary of Big Four Company] and the other one is in a smaller group. So, it is not big for us., I do not know, like, multinational German group. They are like, valantic is the group name, so I think they are more like, middle sized type of deal, but focus on M&A in Germany. So, I was more of a niche thing. So, yes, I do not know. I have two more coming and, we will see.</p>
111	<p>S2: Good luck. Good luck.</p>
112	<p>INT.: All right. So, if you do not have any other questions, as I said, if you have any, if you need anything, if you want anything anonymized, just tell me..</p>
113	<p>S2: Let us keep in touch, because I am really interested to see, to see how It is going to end up and, just say, hello to Buttignon and Campagnolo from myside all right.</p>
114	<p>INT.: Yes, I will.</p>
115	<p>S2: I hope they are good.</p>
116	<p>INT.: Yes, yes, I talked to Campagnolo yesterday or emailed him, so I think he is doing fine.</p>

117	S2: Great.
118	S2: Okay.
119	INT.: Thanks a lot. I will let you. Thank you so much for your time.
120	S2: Perfect. Have a good day.
121	INT.: You too. Bye.
122	S2: Bye.

1	<p>INT.: Okay, so I think we are good. Recording started just now. Transcription is starting as well. So, to be officially clear, are you okay with me recording this interview and using the contents for my master's thesis?</p>
2	<p>S3: Yes I am.</p>
3	<p>INT.: Perfect. So welcome. Hello, and thanks for making time. I know it is, stressy these days, but you help me out a lot with, this interview. So maybe to start off with, you could give a short introduction of yourself, what you are doing, your experiences, and so on.</p>
4	<p>S3: Yes. I will start with introducing myself. So, my name is Jalil. I am currently a technology and IT due diligence manager at WDP, which is part of the valantic group. And yes. Now I conducted multiple technology due diligence. I think now over forty were also led over 30 of those. So, yes, this is like my main turf, you could say., I have studied mechanical engineering and business administration and therefore have all have also some technical background and have written my thesis or my bachelor thesis, about smart contract platforms and morphology that, yes, in general really dissects the platform selection that users face. And, my master thesis I have written about, the implementation or an assassin model of digital, technologies in the field of M&A transactions, with a focus on private equity investments. So, this is actually my background. Also, the reason why I think we are having this interview today.</p>
5	<p>INT.: Yes, exactly, exactly. So, maybe to give a short introduction about my thesis now, so I am in the final phase of my double degree MBA. I am supposed to hand in the thesis by February 12th. So, we are on the last stretch. And within the thesis, I am trying to examine the potential impact that blockchain technology, especially tokenization on the blockchain, could have on M&A transactions with a focus on due diligence. So, we are, close buddies, I would say, yes, from a topic standpoint, the only but is I am focusing more of the financial</p>

due diligence, I think, you know, through the introduction paper. So, yes, maybe with, for, for the progress of this interview. if, if you can find similarities or something that abstracts to financial due diligence as well, please let me know. yes, I think I think that is good for an introduction. I have three main sections and an open discussion part. At the end, we are going to try to keep each section within ten, 10 to 12 minutes. And the last interviews have all been under an hour. So, I am positive we should be good., so let us jump in with, the general due diligence process. So, as I said, I am more focusing on the financial part, but maybe there are some similarities and maybe you can, detail out a little bit or comment out a little bit the, the most generic, process. I know it is not never the same. And where maybe some, some things are recurring.

6

S3: Yes, of course we will do. So, give me a second., so basically, like starting the process, there is like a deal sourcing, which is like reticent to the M&A process. And when the M&A process starts, starts, it usually begins with a scoping definition where you define the scoping items would like to examine during the yes due diligence phase. this also the part where usually the due diligence provider sends out request for information to ask for certain items or docents that are, yes, crucial for conducting technology or in this case, financial due diligence. Those docents are then subsequently uploaded, uploaded into a virtual data room where, yes, it serves like a data exchange, which is highly secure due to the fact that there are watermarks also, indicating who had been the person downloaded the docent and also at what time the docent was downloaded. So, this is like the main data interchange platform, you could say. And there are multiple analyses that are conducted usually, like from a financial point of view, of course, is setting the top level, down to the respective driving forces and also driving indicators for the top-level assessment. And in general, it is making sure that the company is both healthy in terms of previous development, but also projecting into the future, has the correct financial foundation to make sure there is like a projection for growth that is possible. So, this is in general like the indication would like to give your financial due diligence to make sure It is not had a company that is going to develop also healthily., usually there is also an interview-based approach where you clarify pending questions and also some things that are quite hard to grasp, rather intangible things. For example, the strategic, thoughts or like the rationale behind financial decisions. And then after having conduct those interviews usually on, yes, create a report and depending on the

	<p>provider, there is also a part where you, give an indication to the purchasing party to make sure if there are anything that needs to be considered in the like, share purchase agreement to make sure that, yes, some inconveniences or some risks are mitigated before signing or signing and then subsequently closing the deal. That would be roughly about it. There is also something that I know from my practice, in technology due diligence, and I think it applies to other streams. So usually I am rather more, leaning towards commercial and legal diligence because there is like a, yes, a close connection between the three., yes, approaches. But nonetheless, it should be the same for all due diligence approaches.</p>
7	<p>INT.: Sure. And, because you spoke, in terms of connection, I wanted to follow up. So are there or can you comment on,. Let us say intersections between financial due diligence and your job or your type of due diligence, which is a more technical because I am assuming, for instance, in in ERP or programs like that that are essential, there might be some cooperation between your due diligence and the financial one.</p>
8	<p>S2: Yes. Usually where financials would come in handy would be, in the context of licensing and also potential for distribution, because usually everybody knows the copyright, which is quite well known. But there is also the copyleft. Do you have, knowledge regarding copyleft? Do you know what it is, or should I give it some introduction? Okay. Actually, copyleft is the exact opposite of copyright, which means that when using certain libraries that have a license, given by like the developer, you need to incorporate that license into your code. And there are certain licenses, for example, the AGPL license that, forces you to expose the entire source code. If you distribute it in a certain format. And when going for financial possibilities and also risks, you also take a closer look at, yes, the potential for distribution and whether there are some amendments you could make to make sure, for example, to, yes, to balance those risks, for example, by using a distribution model that yields a certain revenue you are hoping for, or you are projecting without risking the software, especially in firms where software is a core asset and not only like does not have an auxiliary function, but rather more a core, the core</p>

	<p>asset, it makes sense to make sure that the financial possibilities you are ruling out during the diligence process are really applicable, not only theoretical.</p>
9	<p>INT.: Okay. Okay. So that that is for that. And then you said you talked a bit about VDRs. And so, I, I know more or less what it is or how it works. But, during my research this was, like one, one thing that flagged up where I thought this could be a handy use case for blockchain or tokenization in general. So, since you have good knowledge about blockchain and smart contracts and so on, can you maybe comment a bit on VDRs? Is there already implementation of newer technology or is it as old as the legacy system of banks or.</p>
10	<p>S3: Yes. It is actually... or contemplating on the development of VDRs... The previous process of due diligence, due diligence was conducted in person where the auditors, I would call them, had to go to or on site and assess docents on like an in-person basis. And the VDRs are like a development from that one. But still... very simple in terms of technological use. So, it is similar to like a Google Drive, you could say, or a SharePoint where the data is only provided. But you give a little bit more insight into this. There have been, especially in due diligence phase where of course there is like an. Yes. Asymmetric distribution of information regarding or between the seller and the buyer., the selling party, including the target company, of course.. Yes. Has., yes, it is I would not call it urge, but also sometimes It is attracted to changing docents, last minute to make sure It is, fitting their sales story. And for example, by using smart contracts or blockchain technology, it could be really beneficial to make sure if a docent has been changed or somehow modified. Because sometimes, of course, all vendors also have like the date it was changed to, but not really checking the integrability of the docent. And sometimes this has not happened to me, to be clear, but from other colleagues and other streams I have like gathered the notion that sometimes, docents are tampered with and there is not really a clear way, and especially in financial due diligence, there are a lot of docents when compared to other streams, and it is quite easy to miss something that has been tampered with.</p>

11	<p>INT.: Sure, that that was actually what I was thinking of as well, in terms of time stamping and validity slash verification, I see somewhat the potential to do interesting things, with this technology. Okay. maybe going a bit back to the to the process. what are the typical pain points for you when you first maybe in the, in the technical due diligence and then in general what you have heard or the other way around, whatever is easier for you. is there anything that is especially, I do not know, time consuming or too analog or. Yes, just anything that comes to mind. It can be positive as well. Yes.</p>
12	<p>S3: I think it can be generally said for due diligence that the like process of gathering documentation is quite tedious due to the fact that often companies do not have, especially if in the context of technology, due diligence do not have the docents available. So therefore, you need to, to really, like, have strong interview skills to make sure that you get the information you really require to conduct., yes, the audit in the end. But in the context of financial due diligence, as I said, I am not really familiar or not in depth familiar with financial due diligence. I think it can be said that usually companies do have the required information, at least on a rudimentary level, or like on a base level, where you could say that, of course, the financials are something that are usually tracked by companies and there is no need to create documentation. But in general, I am quite sure there are also docents and financial due diligence that first need to be created. And depending on the experience of the management team, which is also an indication we give to the investor if we think the management team is really, yes, you could say capable and also knowledgeable enough to drive the company further., depending on the, I would say savviness of the technology or. Yes, overall financial., yes. Financials. You could say, it is sometimes quite hard to get the docents in the quality you need. And, also making sure that there is like there are no missing values because especially data cleansing is quite or. Yes, tedious. Quite., yes. Quite challenging sometimes because you do not really know how or from where the data comes from. Sometimes it seems a little bit constructed, but for lack of better terms, a little bit constructed and just made up for the process. And it is quite hard to follow, like the history of, development and also the integrity of the overall, data provided.</p>

13	<p>INT.: Okay, but as far as I know, the process consists of a more. You ask for what you need, like in a more analog way. So, you communicate by email, video or whatever. You ask for what you need. You get a response, hoping that that response is exactly what you need. If it is not, you would need to go back in. Exactly. Okay, so yes, you do not have you would not have, for example, the possibility to compute the for whatever values yourself. Because if you had all data, for example, on a blockchain, you could theoretically ask all these questions to a system and then would not need the human interaction at that point. Not saying that human interaction is not needed in general in M&A, I think is really important, but maybe not to get docents. Exactly. So.</p>
14	<p>S3: Based on my research or previous research, and also my experience, the idea of introducing blockchain technology is to get rid of the intermediary. You could say, yes, and this is something that would really be helpful to make sure that there is like no bottleneck in terms of data collection and rather more an automated process to make sure you have all data you need. Because, as you said, the emphasis is on hoping that you receive docents you want. And as I said, sometimes they are really constructed and not very logical.</p>
15	<p>INT.: Exactly. I mean, there is always differences to be made. I mean if financial records are fully audited by a big four, for instance, obviously. And that is what I have heard from previous interviews, then the data is usually not doubted because why? Why would you? But that is not always the case as far as I know at least. All right., just maybe to wrap up the this, this time dimension, what would you say is the average time you spent on due diligence? I know it is not the same, same type, but if you could give it, like an average or a range that so highly.</p>
16	<p>S3: Dependent, whether It is like a buy or buy or sell side, of course usually sell side is usually get more time. Of course, to prepare, the docents.. Depending on the use case, it varies between 2 to 4 weeks I would say. Due to the fact that technology is often not the core or</p>

	<p>the driving force in the process, rather more confirmatory in a sense to make sure there is not anything that pops up. Because often this this is where financials come in. Often the results of financial due diligence are the deciding factors. You could say, due to the fact that a bad technological basis does not mean that the company is not necessarily successful, because often you could say the customer does not really, neither does he, or respectively. She, understand, the technological foundation and is not really exposed to technology. So, it is rather more important that the overall case works out. And financial and also commercial due diligence., this would be, I would say the driving forces that decide in favor or against an investment decision.</p>
17	<p>INT.: All right. And if you would somehow rank the different types of due diligences. Well, yes, maybe just going from there. What would you say takes longest and what is maybe done the quickest?</p>
18	<p>S3: I think that the financial due diligence... starting in general the financial due diligence is more automated than other due diligences. Due to the fact that often you know what you are looking for.</p>
19	<p>INT.: Yes, exactly.</p>
20	<p>S3: Not to simplify the problem, but it is still something that you are looking for. And it is quite easy to build those models because, according to my experience, also with other, streams, they often build their reports based on Excel sheets. Yes. Where you basically have to have a good sound model. And the reporting is a simpler part, you could say. Yes. And maybe rank like It is a lot of data. So, ranking maybe in one complexity, but also, yes. The time it takes to conduct the due diligence, I would say I would rank commercial due diligence on top. In second place, I would say financial due diligence, followed by tax., yes. And then I would go for tech and ESG. Yes. Yes.</p>

21	<p>INT.: Okay. All right. Good., I think, I mean, if anything comes to mind, please, just throw it in., I think for now, for the pain points, we are mostly good. I mean, especially since you are from a little bit of a different field, so I do not want to go too much., from the core topic., so then now that we spoke about pain points, this is a similar topic. Let us say, what are the most sensible tasks? And again, maybe now first for tech and then if you know anything for financial and with sensible, I mean, any task that is crucial for the outcome of the due diligence. So, I do not know, for example, reliable making sure that financial data is reliable would be a sensible task for financial due diligence, but it could also be tasks that are, that that have a potential for frauds, either on purpose or inadvertently. But that can be manipulated somehow so that this is like a risk point, let us say. So, if any of those tasks come to mind, yes shoot ahead.</p>
22	<p>S3: Made from a technology perspective. I think it also applies to other streams. It is or it is really crucial to understand the rationale behind respective decisions, because sometimes there are interdependencies that you do not know beforehand that justify a decision. This also applies, for example, to financials, because sometimes you need to invest, for example, to make sure you drive the product further. And, if you only had like a one-dimensional view on the company, it would be quite misleading sometimes. So definitely understanding the context and also the historic growth of the company has, in terms like are you referring to respective analysis or rather more tasks?</p>
23	<p>INT.: No, no, just tasks in general., parts of the, the whole process.</p>
24	<p>S3: Understood., then understanding the flow of data and information just to see where you could potentially gather missing data but also understand who the correct., yes. People are that you need to talk with to understand the firm better. Also, when looking for recommendations or optimization, potentials make sense in the sense how the firm operates, especially, from a financial point of view, because usually, having studied, as I said, business administration and kind of engineering myself, our accounting professors and also, every</p>

	<p>professor in a financial finance related field always said a good, for example, auditor or, yes, you can call it however you want. Understands how a firm operates only by assessing the financial statements. One general, for example, just getting the revenue, profitability financial statement and the respective cost centers for profit centers. You could say It is quite easy for them to understand how the firm operates. And this is also crucial. Crucial, as I said, to understand where the bottlenecks are., and also base your models on your understanding of the context, because usually, as I said, there are some, yes., yes, some asymmetric information that are quite hard to grasp. And you need to at least somehow, be able to trace the thought process of the management team. So, this is why understanding the flow is really important., just.</p>
25	<p>INT.: Just a little question. Maybe in between., so the data flow that refers also to how data is gathered, where from which system it comes from and so on.</p>
26	<p>S3: Like from a system point of view, but also from an organizational point of view. Okay. Yes. So, it is like two pronged you could say.</p>
27	<p>INT.: And this is.. so, on both ends. This is done through interviews and interpersonal communication. There is no way of doing well. There is not yet a way of doing this in a more digitized or automated manner.</p>
28	<p>S3: I think those are rather yes, intangible processes. You could say that is quite hard to optimize those processes. But in the term or in the context of financial due diligence, especially looking for legal compliance would also be something that where I would asse an interdependence to a certain extent. Okay. To also understand, for example, if you are expanding to a new market or if you are planning to expand to a new market, of course there are different, yes, assumptions you need to incorporate into your model to make sure that, yes,</p>

	<p>if everything is sensible and this is something that could be quite easily automated by having like a, yes, a transfer calculation for respective countries, for example, where you have, for example, different taxes and also different, yes, financial assumptions to be made in general. Okay.</p>
29	<p>INT.: All right. so now where we were at the sensible task, second ago, the way I understood it, most of these are analyses, parts that cannot really, I mean, in my opinion, should not even be really automated because you need the personal analysis of a humans, at least for now. but does anything come to mind in terms of the underlying what happens on a technical side of things? So, the systems you use, the, I do not know, the. The VDR or any anything that along these sensible tasks is used that that yes refers to tech that is somehow. That you want to comment on.</p>
30	<p>S3: Like. What I would consider also useful is making sure, especially in the field of compliance. Like by receiving current information on the system in general, because often you receive data that is either historic or outdated, especially if you have technology where you do not have the data you need or has already changed. Right. So, it is quite hard to like starting the process is quite hard to be sure that by the end of the process, the data is still valid. You could say, yes, and this would be something that I would say having more automation would really improve the process in general. Also, the validity of the results in the end. And. Yes, that would be about it. Of course, fraud detection would be something that could be quite easily implemented to make sure that. Use this app belonging. For example, if it is a private cloud, users are belonging to the group of shareholders and can potentially not be, interchanged. Also making sure that, it is clear who's holding what, what value you could say., but, other from that, I cannot name anything on the top of my head right now.</p>
31	<p>INT.: Sure. I mean, that is fine., all right, so this is mostly it regarding the sensible tasks., so my topics are mostly done for now. I have the open, discussion. And since you have a slightly different background than different candidates, I want to keep it as open as possible.</p>

So, yes, you know, the topic and, and, we have talked a bit now and obviously there is the, the fact that usually records or financial records are audited. So, validity is not as important as I initially thought., nonetheless, in the interview with previous, financial due diligence and M&A experts, it, it arose a bit the thought that,. That the implementation of blockchain and tokenization and so on and so on is would be more useful in an audit environment than in the in the financial due diligence per se because they just interpret the data mostly as far as I understood. And they are really assuming or yes, they are assuming that the data is correct. So maybe from what I have heard so far, you could comment a little bit on where you see most potential. I mean, obviously there is other I have not gone too much into commercial due diligence. Maybe we are going to leave this a bit aside, but from your perspective, knowing the tech behind it and seeing the work of my thesis and defining so far, maybe you have an opinion on that.

32

S3: Yes, I can definitely second that, due to the fact that usually in auditing you have to attest to the validity of the information. This is not something that is usually done in a due diligence environment. And also, often It is about speed. If you have like multiple people trying to invest, you need to have reliable information as fast as possible and you are not really concerned with being 100% correct, but rather more having the crucial information to have an indication or a reliable indication on., yes. On your assumption. Also, models.. Something that would still be quite useful for all due diligence processes would be security to make sure that access is really, yes, reduced to a certain group. Because I know from some firms they download the VDR and from that point on, it is quite hard to follow who has access to those docents and also who has deleted those docents. So, it would be quite helpful to make sure that there is no trace. Or if there is a trace, there is a trace it can really follow., regarding your circle of people having access to the data because it is quite, sensitive data and you would not like it to, to be distributed to, yes. Third parties, you could say. Maybe to give a little more insight on that. This is also something that is quite hard to implement, like from a technological point of view, because usually you have,. Yes. In Germany, Minister for Information Society, and they are quite. Sure, that some algorithms are applicable for at least a certain period of time. But you do not have the certainty that they are, for example, driven by cloud or. Quant computing could say those algorithms would become

	<p>unsecure. So, it is quite hard to implement a secure, yes, token-based system, like as a, like, should not forget system. So, you need to, to continuously update and make sure it remains secure.</p>
33	<p>INT.: All right. So. We had basically just to summarize, where we saw or from what I understood, where we saw the potential would be, auditing data access, I would say, yes, like, who can access what then?, version time stamping, I am going to call it. So, what is the most recent docent. And then, verification. So basically, is it really being created. Has it really been created by a representative of the firm that is, that has the power or the authority to do so? So, this, this is where, where we see the most potential, I mean. Maybe you can comment on this from the side of, of, technology., as far as I understand, the blockchain, if you were to really have all of your accounting or balance sheet, income statement and so on the chain, you could theoretically have a near real time computation of pretty much every value. Right? So, so theoretically, with regards of, our assumptions from the beginning. So correct. After four weeks, if you had blockchain accounting, let us say, you could have real, more, or less real time data. And no, real time is hard, hard to do, but, close enough., so that would benefit, I guess. I mean, I am assuming that everything that makes data transfer faster and more reliable is essentially doing any due diligence better is would you agree?</p>
34	<p>S3: Definitely. So, every time a system or a process is broken down due to transfer into another system, for example, those processes are quite prone to error. So, you would like to make sure It is like easily automated and also kept in one place. And of course, depending on the use case you do not necessarily need real time at all times. Yes, yes. And. Also, by implementing smart contracts. It is, for example, the development of certain financials do not or are bound to strict rules in terms of calculations. And for example, if you. Sell certain products or services or whatever, and your overall profit increases. It could be something could be easily documented on a blockchain. And yes, you still have the ability to have it. Yes. Transaction history to review the development and up to the current status. So, there is definitely something that could be applicable. And as I said, there are multiple providers now for smart contract platforms that you could use. And depending on the use case, it is not necessarily having to be necessarily had to be on one platform because you can also swap</p>

	<p>coins between platforms. Which would be a convenient issue I would say, because you would not like to have many coins that you need to somehow, manage. But I think depending on the respective use cases It is quite or it would be sensible to have one platform and even it does not support real time, accessibility. This is not like a yes or a critical issue that would lead to the platform not being chosen at all. So, it is depending really on the use case and what you would like to automate.</p>
35	<p>INT.: That makes sense. All right. Okay., so if nothing else comes to mind, I have the I mean, I as far as I can tell you, I have read the introduction PDF, so, I have on page three, but I can throw it on the screen if you want. I have some main assumptions., if you could maybe just comment on those where you can, just your general opinion on it does not need to confirm or negate or anything. It is just, just to get a, an assessment or. Yes.</p>
36	<p>S3: So, referring to the first statement that M&A transactions are notoriously lengthy and somewhat ineffective, I would definitely agree, due to the fact that there is also a time constraint, to accelerate the overall transaction. And usually M&A is known for long working hours, which is linked. To the issues or inconveniences we already addressed. So definitely support the first statement. The second one, regarding, due diligence being one of the most time consuming and therefore costly phases of the whole process.</p>
37	<p>INT.:</p>
38	<p>S3: I would not necessarily say that it is always the most costly phase. It is depending on whether all processes start at the same time. Because sometimes what investors also do, they start one process is the most critical one. And look, if there are any red flags, in case there aren't any, they proceed with having the other justices start the processes. So, but in general, I would still say that the overall I would</p>

	<p>say investment for due diligence is quite high. Okay. But also, in in comparison to the overall enterprise value. And at the end the purchase value of course is neglectable. Yes. But it is still quite high. So, I would definitely go for the first part regarding being time consuming, but I would not, sign off the second part, I would say.</p>
39	<p>INT.: Yes, okay. Also, the time consuming obviously depends as always depends, but depends on preparation of the sell side and so on and so forth. But this is just for a general idea. Okay, cool. Thank you.</p>
40	<p>S3: Referring to the third one. So. I think this statement applies to. All due diligence processes. Due to the fact that if you do not conduct a clear and concise due diligence, and do not inform the investor that there are potential issues that should be considered. For example, in, drafting the SBAs and making sure that you have some sort of, yes, insurance on certain topics, this would almost at all times lead to an issue afterwards, and the investor would invest quite a lot of more money to make sure that you negate the risks that could have been detected earlier in the process. So, this is definitely something I would go for also for the financial due diligence.</p>
41	<p>INT.: Ok.</p>
42	<p>S3: The fourth statement. I have, stopped, like, after having read the first four words due to the fact that the investors are also not really tech savvy, and I think it is quite,. Yes, it chasm between what you would like the investors to have in technological knowledge and what is really there. And often you could really point out that they know of the implications the technology would have, but they are nowhere near in or. Yes, or nowhere near to implementing anything Blockchain-related.</p>

43	<p>INT.: But, just maybe to detail this out a little, with institutions, I refer mostly to the, to the big auditing firms and the investment banks less to the actual buyers. Yes.</p>
44	<p>S3: So often or oftentimes the due diligence providers are, for example, the big four, which also have like consulting unit split in different departments. So, in general I would say they consult other companies by, for example, implementing blockchain technology due to given advantages. So, it would make sense for them to have also an internal projects. Or you have internal projects to implement those learnings they have already gained or gathered in other projects with customers or clients. You could say to, yes, back propagate those information or those findings into their own blockchain platform. So, referring to auditors, of course, this is definitely something I would go for. Okay. But still you when introducing or introducing sorry when introducing software and also technologies, you need to make sure that also all parties involved are familiar with the technology and also accepting the technology. And I think that that the based private equity investor, I would say,. (..) Need to be convinced of the advantages.</p>
45	<p>INT.: Okay.</p>
46	<p>S3: Okay. So, the first reaction would be okay, it is something new. It is blockchain is like a buzzword. I cannot really pinpoint what it really does, what it what I need to learn maybe. So, there is this. Yes. Certain inhibition I would say, but nothing that couldn't be., yes. It couldn't be removed by educating the investors and also all parties involved.</p>
47	<p>INT.:, to comment on that., as far as I have heard or the opinions of the other people I spoke to and the internet, vaguely speaking, is that this is, not something that is going to if it will be introduced. It is nothing. Not something that will be happening tomorrow or even in the</p>

	<p>next year, but rather in a 5-to-10-year time frame. At least that is what I think is realistic. And what other people have told me they think could be. Yes., if you could just comment a little bit on what, what your time horizon would be until we see, I mean, we already have some blockchain business adoption, but not in an M&A context. So maybe to focus on that with the asterisks of auditing maybe as well. Yes.</p>
48	<p>S3: So, I think. That you are proposed timeframe is not far off from my assumption, to be fair, so I think it is a quite reasonable assumption. And this is also something that I asked the private equity investors because I conducted a similar research, as I said, a maturity model of evaluating digital technologies from an investor's perspective. And regarding blockchain, they were all quite firm on the notion that they do not see it for the next three years.</p>
49	<p>INT.: All right.</p>
50	<p>S3: So, I think 5 to 10 years is a very reasonable assumption.</p>
51	<p>INT.: Okay. But still, I am still hoping or also a bit guessing that big four and investment banks are maybe a bit ahead of that wave and they are maybe trying the first things already. But yes, I think a couple of years for sure. Yes. all right. Okay then. I mean, yes, five and six, are the last ones open? I do not know.</p>

52	<p>S3: Check really quick. So, the fifth one is definitely also something I would go with or would support. But I would not asse that it is really out of malice or yes, intentional, but rather more prone to issues in the data collection process.</p>
53	<p>INT.: Ok.</p>
54	<p>S3: And having those steps automated, also validated would at least make sure that you. Do not have to asse the data is correct, but you could be sure that the data is correct. Yes, this is also something that investors would really, be satisfied with. To know that the data provided is nothing they have to think about. But of course, they know the due diligence is just like a confirmatory process and not really, not necessarily reflecting the truth or the ground truth. And this is something that they involve or incorporate into their models. So, you have different, sensitivities in there in or in the investment models where you say, for example, if this value ranges between, for example, 10 to 15%, what would be the outcome which is or what is the cut off percentage where we that we need to achieve at least. And so, this would lead to more. Accurate models from investors point of view. But also, this entails that, for example, the insurers and also the investment banks are or can give out. More accurate loans to make sure that the transaction is, subsidized.</p>
55	<p>INT.: Yes.</p>
56	<p>S3: And the last one, as I said, is something that is really, really usual in processes because you only, when spending more time, you could be sure that you have gained full insights and that you really understanding how the company works. But in a due diligence setting, that is, as I said, especially in auction settings where you have multiple buyers or multiple, interested parties, you need to be quite fast. And, you do not really have transparency if the provided information or data. Is not only valid, but has there been something that has</p>

	<p>been left out intentionally? Like from a strategic point of view. Also, having conducted multiple, society challenges, it is not about at least, we work, like this. I know from other stories, there are some black sheep you could say, but it is not about,. You are hiding information, but rather more moving., yes. Conflicting information. A little more in the background. But you still have the option at least to remove, yes. Information that is not supporting your equity story or your sales story. You could say so. Definitely also go with six one.</p>
57	<p>INT.: All right. Perfect., thanks for that., so for the plan part of the interview, we are done., the one thing that came to mind, and it is not a must, but if you have any story that comes to mind, anonymous or with names or without, I do not. For me, it is just for the knowledge part., do you have any case, any experience from your experience? Sorry., where? Well, obviously will be more tech, due diligence, but where you said, well, due diligence was bad or flawed or you did not get the information. Does not matter from which side., it was quote unquote bad. Yes., so if you have anything that you want to share, please. Yes.</p>
58	<p>S3: I was referring to tampered data earlier in the interview. Yes. I was actually referring to colleague of mine who's working at a big four company and, without, yes, without telling me the real specifics. You could say, he still told me that there was tampered data, but in the end, was discovered after closing the deal. And this is something that you as an investor, I think is the worst nightmare for you to have, like, certain issues on a financial level. So, this is definitely something. Well, of course. The trust was lost. And especially in such a setting, you try to establish trust as early as possible. Yes, even in the due diligence process, because often in an auction phase, sometimes you have much more invested you would like to work with. And sometimes the people conducting the due diligence are those that are decisive or decisive factor in the end that you say, okay, the experience with a team of said investor was really, yes, joyful. So, this is why I would like to yes. To, to keep on working with that investor. And when something comes up that really questions, the trust or the potential relationship and cooperation, that is quite devastating because it is also quite hard to, to, yes, to, to make sure that you are not contractually obliged to, to remain in that position. And this is why I also said making sure you conduct a good due diligence, due diligence, and also making sure that you incorporate information to the space that could be potential or potentially harmful to an investor</p>

	<p>is really crucial to make sure that everything goes on smoothly. Also, after the closing, because closing the deal and also like signing closing the deal does not mean that the work is over. This is where the investor really has to invest and also add value to the company. And all investors have a certain time frame in mind where they plan and exit and tampered data or unclear statements can really, yes, change the timeline to an extent where it is not really economical anymore.</p>
59	<p>INT.: Sure. Yes.</p>
60	<p>INT.: And two follow up questions on that. First, what kind of data was tampered with? Was this actually financial data or., yes.</p>
61	<p>S3: I do not as I said, I do not know the exact specifics, but okay. If I recall correctly, this is just out of memory. It was actually, profit from a newly introduced product, where they said we introduce a new product. It was well achieved or well received, sorry, well received, and had a lot of success in the market and we made profit. Of this amount. And the problem was that, of course, they, yes, talked to the commercial stream, but there was like a link between the data, which was also quite,. Yes. I would say, improved. So, in the end, it was. The question is. Would it be possible, or would it have been possible for them to see the issue beforehand? I think no because there has not been an automated process in terms of data collection. But they were diligent. They did the due diligence. But this is something that you couldn't have caught. Even if you paid more attention. And this is why I said automation would really improve. Or the implementation of, for example, a tokenized system really improve, making sure that everything, yes, is valid.</p>
62	<p>S2: Okay. Yes, that is a good example, actually. Thank you.</p>

63	<p>INT.: And what was the aftermath? So, I mean, as wide as you can go obviously. But did they get sued or did the person get fired or did anything happen at all?</p>
64	<p>S3: I do not know, how exactly it went down for the other parties. I only know that the person in question that conducted the financial due diligence, had some rough nights, I would say. All right, of course, of course., you do not want to be in the position where, your due diligence stream, missed something crucial., but other from that, we have not talked about any further specifics.</p>
65	<p>INT.: Makes sense.</p>
66	<p>INT.: Okay, cool. That was very helpful. Thank you. You are welcome., so, I am good for now.. Two things. If anything would come up, would you be okay if I send you an email or re contact you in any way? Perfect. And then, regarding the next steps. So, I told you I am going to hand in the thesis by the 12th of February. So, if you want, I can give you I can send you a copy or I can give you a summary., my approach would have been to send you the finished written version once it is done. And. Yes., I am Leslie. If you want anything to be anonymized, the video will not be shown., I still have to clear up whether they want the audio files that will be transcribed, but they will probably not be handed in as MP3 or whatever. So just so you know, and yes, if your mind changes on anything, obviously, just let me know.</p>
67	<p>S3: Great., one follow up question. Yes, sure. Will the thesis contain a transcript of the interviews, or is it rather be an aggregated summary across all interviews?</p>

68	<p>INT.: Well, I have to ask my professor for that one. For now, I have transcribed them word for word, except for the s and s and so on. So, it is, literal transcript., yes, but my professor has not told me yet whether he wants the full transcript or not. So, I can let you know as soon as I know. But as of now, every interview will be transcribed minus the arms, hours and so on.</p>
69	<p>S3: Understood. So, in case you get feedback, please let me know just to maybe have a second read over the transcript. But I think in general we should be good to go.</p>
70	<p>INT.: All right. Sure. I'll let you know.</p>
71	<p>INT.: Okay then. Thanks again for making the time., it helped a lot., it was very cool to talk to a colleague once, and. Yes. Have a good day and talk to you soon.</p>
72	<p>S3: Talk to you soon. If you need anything else. As I said, please just reach out.</p>
73	<p>INT.: Will do. Thanks.</p>
74	<p>S3: Thank you.</p>

75	INT.: Bye.
1	S4: [Inaudible]
2	INT.: Okay, so just for the record, once more., are you fine with being recorded for the purpose of the master's thesis?
3	S4: , yes. Yes, it is fine to me.
4	INT.: Perfect.
5	INT.: So, welcome. First of all, thanks for making the time. I know, time is really a constraint for most of us these days, so thanks a lot. It helps me out a lot., as far as I know, you've been at UNIPD as well, so you might actually know my professors., my thesis father is., Amadio. Amadio. Pugliese. And, yes, I had corporate finance with Buttignon and Campagnolo and M&A. So yes, you should know all these names I think. Yes. All right. So then, maybe we can start off with a little introduction. Maybe you can, speak about a bit what you do, maybe also touch, how much you know about blockchain. Blockchain technology. Just so I know where we can go, where you feel comfortable.

6	<p>S4: Yes. Okay, first of all, okay., nice to meet you again., my name is [Name]. I attended [University], the undergraduate program for the undergraduate program., 20, 18 years ago, the 206 and two, 209. So, it was a lifetime ago., now I, I am a senior manager in. I. So a brief introduction of my career. I started working in [Big Four Company] as an auditor. So, after I left Padua, I joined, I attended [University] and then I, I took a master in [University]. After that, I began as an auditor in [Big Four Company] for five years. After that, I joined to [Big Four Company], and I spent their two years where I, I covered financial due diligence matters. And then, after that experience, I joined to a boutique firm called [Name]. Where I covered, I mainly covered, restructuring, matters I. Yes, I added also financial due diligence., of course, for, smaller clients, smaller private equity clients and corporate clients. And after that I joined to e, from. To., 2022 if I remember well, and currently I cover. When I share due diligence matters with focus on TMT sector. So.</p>
7	<p>INT.: For clarification. The TMT sector. What is it?</p>
8	<p>INT.: The TMT sector. What is it?</p>
9	<p>S4: Is telecommunication, media, and technology. So, all the tech, media, digital sectors, telecommunication in Italy is quite, concentrated sector with few clients. So, my. (..), my expertise are. More on digital and media. Okay. Perfect. And I do not know, how do you how much do you do about, do you know about the financial due diligence? But my, my. Day by day activities regarding the analysis of statutory financial statements, trial balances and,.. okay. Let me let me do an example about my standard project when a client came to us and asked for a due diligence.. First of all, we prepare a scope of work with our activities as we plan to do on this target, because in this example you can. Sorry, step back. We can have two different, kind of work., sell side or buy side. So, if our clients wants to sell their company us, to us to prepare a vendor due diligence, vendor financial due diligence, where we prepare a data book and a report</p>

where we explain to the market and the potential buyers that our company, our company performed, well in the last three years. And we prepare in an EBITDA adjusted statement, a net financial position adjusted statement and working capital adjusted statement. So, these three analysts are the main the core analysis. And we, and we also do, ancillary analysis on the business overview. So, we prepared also analysis on, price vole mix analysis., pass through analysis where we, trying to understand if our client is capable to pass through their clients, eventually, increase in raw material prices and so on. So, our package help our clients to have less effort in a second step with the potential buyers. If, a target company do not want to prepare a vendor, due diligence might be incurred in a lot of effort. In the second step, when maybe they have 4 or 5 bidders that have to prepare by side diligence reports. And so, the target company should prepare five set of data for five different bidders. So, this is the why companies tend to prefer vendor diligence, report, when they want to be sold., the majority of due diligence are of course buying side. So, our clients, want to buy a target company. And so, we need to prepare this report with the, with the focus to help our clients to. To have the better understanding of the target company from a financial standpoint in order to have, the best information to prepare a fair valuation of the company. So,. (..) In the practice, I see that the client's private equity and corporate tends to, to think in terms of EBITDA adjusted., net debt. Adjusted net cash or net debt adjusted and working capital swing. So, the valuation of a company, tends to be made in terms of, EBITDA, multiple, plus or minus adjusted net debt, cash plus or minus the swing between the target working capital and the actual working capital at the closing. So, this, is the this is the reason why we prepare our analysis focused on these three statements, adjusting working capital, adjusted net debt and adjusted EBITDA and substantially ours. Our,. (..) Our work lasts for. (..) With an average of three four weeks., it depends by the complexity of the target, of course., and the. That will enable the management to prepare, data. We request, and so on. So, this is ours., average, project. But the if you have. Question about that, please.

10

INT.: Okay. Now, this is, more or less already going into this. The second topic, the next question would have been whether you can detail out, like, a generic financial due diligence process. I think that is more or less what you just did. So that is perfect for me., it was

	<p>this also in chronological order just for me to, to understand. So, it is, I have to go in the notes, so it is first EBITA adjusted, then the net cash and the working capital in that order as well. Right.</p>
11	<p>S4: yes. So. (..) There is not an order, but we tend to prepare to present it to our client, PNL as a first, so business overview, why the business increase or decrease during the analysis period? And, then we present the PNL, overview. So, we, go in details to the PNL in order to understand, again. So, in the business overview, we tend to describe the top line, and then we, we give to our client, an insight on the full PNL and then the quality of earnings where we analyze the adjustment on EBITDA. And then we start with the balance sheet section. So, balance sheet overview and then adjust the working capital and adjusted net debt. So this is the order of our standard project.</p>
12	<p>INT.: Right. And the final output, is...</p>
13	<p>S4: A PPT. PowerPoint.</p>
14	<p>INT.: I am sorry. We prepare a PowerPoint, and then we give to our client a PDF. Okay. Editable PDF, in order to be sure that, and sometimes the client can ask to have, the data book so in Excel file, with our analysis. But that is it. This is our output. And then we can help them in the second phase where they are going that where they negotiate with the counterpart, the SPA, the share, and purchase agreement. Yes. And in that phase we need to analyze the financial definition. So how the SPA define the EBITDA net financial position, what, the rep and warrants. So, the representation and warranties provided by the bidders and the sellers and then the indemnities, then the that the potential buyers ask to the seller and so on in order to cover potential liabilities that may arise in the future. So, this is our, our effort in an M&A process.</p>

15	<p>INT.: All right. All right. Perfect. This helps a lot., so now that we have the process, maybe you can comment a little bit on pain points. So maybe before I can clarify what pain points are within my work is, some type of challenge that is either just challenging by itself or, especially time consuming or, maybe done analog or not yet digitized or just plain inefficient, but it does not necessarily need to be bad. So, if you can comment on any. Yes, any task, any, any points, during the process that are. Yes, that are crucial, that are painful, that are challenging or positive depending on how you see them.</p>
16	<p>S4: So, if you are asking me which part of our standard project can be, time consuming or can create, inefficiencies, I, I must say that in Italy we have a problem with the,. We are obtaining the information from our client, from our from the target companies, because the majority of, company in Italy are small or mid-size. So, the financial department tend to be understaffed. And so, our request can be very extensive and very, very well, so very heavy in terms of effort that we request to the, the financial department. And so, it, it, it can, be very painful for our work in terms of budget and effort and the team management and so on. So, and the, the efficiency of the financial department of the target company can determine also, the limitations in, to our work, because at the end of the day, we need to present our project, our report, and in our report. So, we have a scope of work. We say we agree the scope of work with the client and say, okay, guys, we can do a, b, c, d, e, f, z. But if the target company do not provide BNC, we need to specify in our report that we present our report except BNC, because the target company did not provide us with the information that we need to, to cover the full scope of work. So. The. This can be a very, very, point of inefficiency. But what I am thinking about, in terms of your work, blockchain and tokenization, I do not know very well this word I, I invested years ago in, in some coins, in some token, but it is my, my, my knowledge of the, of the blockchain and token is quite limited. I know that in our, our world, in M&A world, the blockchain could help. I do not know maybe in us they started you for sure. You are, very well prepared than me, but, more prepared than me. But I think that, blockchain can helps , more in the, the in the execution of the SPA, the when the companies need to, execute the, the SPA, the blockchain could guarantee the, the two parties to be, at the closing that the contract, is executed in terms of payments and in terms of, warranties and in terms of the.</p>

This is what I know. So, my, my, my knowledge is very limited. I do not know, I am not aware about the implementation of blockchain in the financial due diligence process, but it is what I know.

17

INT.: Yes. I mean that is good. And the main reason we are here today is to mostly talk about the financial due diligence side of things. So maybe if I can give a short introduction., yes. Blockchain. So, what makes it special basically are, a set of things. The main thing is, is, decentralized, network. So, it is not running on one centralized database. It is consisting of multiple machines, computers, usually in a P2P, P2P network. And the fact is that every node within that network has a full copy of all records ever recorded. And in order to add a block to the chain. So basically, yes, to add another transaction or another record to the database, you need the confirmation of all the nodes. So, all the nodes are basically checking. Okay. Is, all the records the same. And is this new record written on a part of the database that is validated by all the other nodes? So basically, if you do not control the majority of the nodes, you cannot edit the chain, which virtually makes all the data and records on the chain, interoperable. That is what they call it. So, it is basically you cannot change anything. At the same time, depending on the type of blockchain, everybody can see the contents without knowing who is the person behind it, unless obviously It is disclosed and so on. But generally, it gives you a very secure way or a very verifiable way to see whether the data is valid and whether it has been originated by somebody with the authority to do so. So, in terms of, financial due diligence and, I am going to take some of the contents I had with the other interviews. Now, I think, and this is what I learned now through the work so far, I think that this would be even slightly more useful in audit than in due diligence, because as far as I understand, you are just, well, due diligence. Financial due diligence is just more or less assume the financial data they get is correct, especially if it is audited. I mean, there is I am sure there will be some cases with little firms that are not audited where you need to get the data yourself. But in general, I am assuming you just take the data for granted and just asse that working with this is fine. So, in terms of potential benefits of blockchain systems, I think it could be more from an audit side of things, because there is less analysis and more emphasis on data validity, actuality and so on. Yes. Another thing that has been, said now by three of the interviews I had so far, the other experts said that more generally,

	any innovation that makes data more reliable in terms of validity, actuality, originality, and all that that matters, would generally be helping or improving financial due diligence performance. Can you comment on this a little bit?
18	S4: , so our work has said before, based, substantially in,. Statutory financial statements information, management account information and trial balances. So,. Our work starts from an assumption that the data that we received are correct, are presented well and are reconciled with the statutory provisions. So, our first step is to verify that the trial balance we received are reconciled with the statutory financial statement approved by shareholders meeting. If it is not, if it is, if it is not true, we need to ask back to the target to receive the same set of data that allow us to reconcile the trial balance with the statutory financial statement. So, first step. If the trial balance, if the company is an in an audited company, we...So we specify to our client that our work is not an audit is.
19	We cannot perform audit procedure before starting our work. So, first of all, we clarify to our client that, due diligence is not an audit.
20	However, when we perform our analysis, we tend to verify. Also, I let me say, at least for if we if we encounter certain big error accounting error, of course, we raise at the end and say to our clients: “Hey guys, we have a problem, we tend to perform maybe in, in an audited company, cut off procedures to verify the sales. Or we ask for bank reconciliation to verify that the cash is, is correctly accounted for. But that is it. We do not perform analysis on the risk management. We do not perform analysis on the, all the account., so we based on information we received, and of course, if a company, if a target company is audited for us is a is better because of course, the data are correct, because at the end of the day, our clients want to buy the target. And if he they are seeing two numbers that are incorrect, they have a problem. And we have a problem in performing analysis. So of course, the basis of preparation of our work should be as more consistent as we as it possible. So.. (..) So of course, if, we, if we have, consistent data, if we have reconciled data, our work is very, very, helped. So, we It is very It is easier to analyze a reconciled data, audited data. And of course, especially for small and mid-companies,

	<p>there are also problems in reconcile management account to financial statement management account help us to understand better the business because of course management accounts are kept by the company in order to, to manage to manage the business, to see maybe to have the sales by business line to, be a sales by geography, by client. And these information are very helpful for our client. And we need to analyze that, the majority of time this statistics are not reconciled or reconciled with the financial statement. And this is an area that the auditor, that that the auditor does not matter the management account and, just, they look for, they look at the financial statement only and our work based on both. So, we are interested that the statutory financial statement are audited, and the data are consistent. But also, we need to reconcile management account with the financial statements. So, long, long story short, if the if we analyze the target company audited with management account reconcile with financial statement, our work is easy. Or at least sorry, not easy, but it is, we save a lot of time. A lot of time. If we have at the opposite, a company and only unaudited., with management account does not reconcile with the statutory financial statement. Our work can be very, very painful.</p>
21	<p>INT.: And in this case, you would... you would need to do it right?</p>
22	<p>S4: Yes. I need to do that. I need to reconcile. I need to provide at least,. If something is impossible, we cannot provide the impossible. But of course, our client ask for us for the best effort we can do in order to present consistent data. Because at the end of the day, they. They need to spend money to buy something that they understand. If they do not understand the company, they cannot, present an offer. And so, the pressure is very high, especially in the situation where we + find, an audited company with management account and reconcile with statutory financial statements. So, they are very low quality. And our and the output of our work, of offshore is, affected by that. But at the end of the day, we will say our client, hey, guys, our, scope of work and cannot be, covered because we have this limitation and reconcile data and, and so, but that can be a red flag. So, a deal breaker. So, it is very important to have a consistent data. And of course,</p>

	<p>maybe in this case, the blockchain, I do not know how this can help the, the audit procedure, but if it is something that, can help to have better quality information offshore, we will have we would have, a better, a better,. What a better situation where we work.</p>
23	<p>INT.: Okay, I have. two follow ups on that. So, the first one refers to, data collection. So, you said in the case that you have to get some data from management or whatever., do you do this? How do how is it done? Is it digitally or, via email or.</p>
24	<p>S4:, the situation can be varying a lot from company to company, but the standard situation is that we receive the, the access to a VDR public VDR. Yes. Like, I do not know, ideals, like, a lot of VDR that, even Google Drive can be treated VDR. But of course, the more professional VDR, are more reliable in terms of documentation., they provide the information about the app, upload data. If the data has been changed in the period, if the so. But at the end of the day, if you want to know about the exchange of files, it happens in the VDR. Okay. The target company upload the data in VDR, and we download from the VDR.</p>
25	<p>INT.: Okay. But as far as I understand correctly, it is, a room where data is pushed into and it is not, it does not work on a call basis. So, you as due diligence, performer you do not have the possibility to pull docents out of the system. It is just what has been uploaded there is there. And whatever else you need; you need to ask for it or write an email. Right?</p>
26	<p>S4: Yes., usually we prepare the, this this docent that is called information request list. No. Where we, we prepare a list of docents that we need to cover our scope of work agreed with the client. So, if our scope of work is that we need this information to cover it, and, and there is also a Q&A session, or expert session. So, a lot of sessions to clarify the context of, of the business, the context of certain</p>

	<p>situations. But the first, first step is to send to them the info request list. The target management prepared all the information we need, and then they upload batch by batch into VDR. And that can, yes, that is the standard process.</p>
27	<p>INT.: okay. That is good. I have one last question, and we can move to the next topic. Maybe,. So, in terms of, yes, in terms of data, actuality, how important is it that docents are up to date or let us say recent? I mean, in terms of financials, I am thinking depending on the company and the legislation, they have their earnings, quarterly or in Germany It is yearly. It depends., do you use those numbers? Do you get more, let us say, in between earnings numbers? Because what I am trying to get at is if you if you were to have your whole accounting on the blockchain, you would virtually not really need audit anymore because it audits itself. It can literally through computational trust, see whether a transaction can be like fruitful and valid or whether it is fraud. So, if you had that you could technically, pull out a balance sheet every day because all the transactions would always be there and always be automatically validated if they are valid. So, you would get a more, up to date or more close to real time, snapshot of financials in general. Is that something that would help, or are you saying, since we are, since it is like the time horizon, it is okay.</p>
28	<p>S4: Of course, it could be very, very, very, very helpful because the so, speaking with you can help me to understand what can be, useful, but, for you, but, yes, of course, our request, cover, usually the intra the intra annual, intra yearly, data. So of course, we, usually we ask for monthly or quarterly data, because it helps us to understand better the evolution of sales in terms of PNL, and, but also the information, monthly or quarterly can help us to understand any seasonality of working capital, which can reflect in a, in a, in a price impact. So, usually what we see,, including the, the, listed company, of course, but in the, in the majority of the company, see, they do not prepare intra annual, intra yearly, data. Of course, they have yearly data. And, for the majority of time, this is prepared, the statutory financial statements are prepared six months after the year end. So, we constantly work in the, in a, in a, in a delay situation.. And, of course, if the data, especially in the UK and the US, they tend to use also the, the, the daily information when available, of course, because the working capital can swing day by day and if they need to put the numbers in the adjustment of the price, they would be they want to be sure that</p>

	<p>the adjustment is more as more precise as they can. So, if, of course, if we have daily information is the best option, and then if we have monthly information, a second best, quarterly information, third best. And the worst situation is when they do not prepare, intra yearly information at all. And so, in that case, we need to work on the, Share information because if you work on the bank accounts, information that of course they can be, they can provide that in a monthly basis because, they can download by the home banking, the, the bank statement. And then we, we, we start from the bank account situation to reflect the working capital situation. But it is, it is not the best option to analyze the working capital. So of course, if blockchain can help in having a, a daily or monthly information, as more accurate as possible, it would be very helpful for our work.</p>
29	<p>INT.: Okay. So. Thank you for now.. I am going to. I do not know if, if you had the time to have a look at it. I am going to share the slides. I also sent you, just to summarize the advantages that I see within blockchain., you should see a slide now.</p>
30	<p>S4: Yes.</p>
31	<p>INT.: All right, let me just enhance the size a bit. Okay. So, as you can see here, my work so far and the interviews. Oops. Can you read this? Because it is gotten all blurry on my side.</p>
32	<p>S4: I can read the. Okay. No. It is okay. Yes.</p>

33	<p>INT.:, so there are four main., so far I have identified four main areas where I think that that the innovation could actually be beneficial., they are mainly security. I explained a little bit earlier that due to decentralization, it is really hard to change data on the network. So that is the security aspect. Also, data quality., we spoke a little bit about, blockchain is generally making sure or allowing to make sure that data is original valid., has been presented by an authority that is allowed to do so and so on. So that is the whole data quality aspect as well, with, the real time analytics that could potentially be, I mean, it does not only because you have a blockchain, you necessarily have real time analytics, but it could lead to that. So that is another, advantage in terms of data quality., accessibility, is another one because, as far as I am concerned, I feel that the information asymmetry and M&A is fairly big, especially depending, on the buyer as well. So, if the buyer or the seller, sorry, if the seller wants to sell, he or she has multiple ways to create their sell story, let us say. And that might not necessarily represent all the information in a fair way. I mean, make sense? And with blockchain, you can somehow counter that a little bit because it is generally more transparent. I mean, we are assuming this is a disclosed public blockchain and so on., another thing in terms of accessibility is that blockchain allows for fractional ownership. But I do not think that is necessarily important in a due diligence scenario. And lastly, the efficiency aspect, I mean, to be fully honest, you do not need a blockchain for automation, but the security aspects of a blockchain paired with automation might make it more reliable and more safe than other so far existing automation tools. So, in terms of these four aspects, maybe if you could comment a little bit on, which ones are maybe important to your work, where you are saying, well, we already have this, whatever comes to mind in terms of these, these four dimensions, would be great.</p>
34	<p>S4: Of course.. I will say that for sure. Real time analytics could be very, very helpful. As per what we said before, and of course, all the security section, because is the is the core of the blockchain, function. So of course, if the data are, immutable, if the data are, correct and consistent throughout the time, and if we have the possibility to have real time data, it would be very, very helpful for, for the due diligence process and also the, the, the two parties, the seller and the bidders, in order to have a consistent data set to analyze and, of course, the diligence, Is more. Through, I do not know. Yes. Fair and true. Okay. And in terms of efficiency in the accessibility... I cannot see, maybe</p>

	<p>in the in the second step, when the SPA should be executed, the when the at the closing, there is, there is the exchange of the shares., against the cash and of course, maybe the smart contracts can be very useful in this situation. And, I think, and the fractional ownership, what is the fractional ownership. So....</p>
35	<p>INT.: Well.</p>
36	<p>INT.: So, this is more of a subpart, to making a real-life example. I do not know if you have heard of Block Square. It is real estate platform. So, they, they buy and sell real estate. And what they basically do is, they take House A and they put House A on the blockchain, but instead of, making one coin for House A that is worth 1 million, they make 100 coins that are all a part of House A, and that allows for, to buy a part of House A for not 1 million, but maybe only three coins. So, you so you do not have to buy the, the full million. And therefore, you can have investors that are usually more retail investors or let us say smaller money can suddenly invest in investments or investment opportunities, investment classes that they couldn't before because of their investment threshold. So, the idea between fractional ownership is that through fractionalizing assets, on a blockchain, you can make sure that. You have your part of the value of the asset and it is, yes, it is just a more secure way of splitting, basically, ownership. And that is proven and recorded on the blockchain. So that is, I think it is more interesting maybe in terms of when assets are sold, maybe in terms of, I do not know if in M&A there is also, asset purchases for that. It could be maybe a use case, but this, this is more, this was more a note for me depending on depending on the person I sit with. But yes, in general, as far as I can tell, the, the huge or the, the possible benefits you, you see, are clearly in data quality and the security aspects, the whole transparency thing might be an addition, but as far as I know, when both sides are honest and want to go through with the deal is generally not a major problem to get the information or to have, to have the information exchanged. Right?</p>

37	<p>INT.: Okay. So, I think that is it for that., I have another small topic, but I think we already touched it, but still going to touch it., are there any sensible tasks that come to mind during the financial due diligence for me?, just to clarify, sensible task can be two things. It can be either a task that, has a crucial impact on the overall due diligence or, some type of tasks that, if performed badly on purpose or by accident, can somehow, yes, bear risk for fraud or for, let us say things you do not want. does anything come to mind in terms of yes, sensible task or critical tasks? , and if yes, how are they performed. Can you comment a little bit on them.</p>
38	<p>S4: Quite difficult because our work is not regulated as the audit. So, it is quite difficult to encounter a fraud risk in our work, unless we decide to agree with the, the seller and we present to our client, that is the bidder, false data, but.</p>
39	<p>INT.: But could this technically happen?</p>
40	<p>S4: No, no, no, it cannot be because we are responsible for the output of our work. So, the engagement letter, the engagement contract, specify that we are responsible for a lot of things. And so, we are bound to our client. We cannot speak about the project within, our firm, with our with other colleagues who accept, the team and the engagement team, of course. And so, we have a sort of, China walls that, avoid to, especially for the listed companies when we work for listed company or on listed company, there are a lot of China walls that, avoid to, data leaks. And, yes, we are responsible for a lot, a lot of things because, of course, we manage the sensible data. But.... Of course, we use the professional diligence in order to perform our work, but can happen that, we cannot perform.. (..) I did not see any situation like that. But theoretically, if we do not, prepare a good job because, of negligence or something else, we can be, sued by our clients.</p>

41	<p>INT.: Makes sense because at the end of the day, you do not. This is heavily trusting based business, I would say. And if you if you lose your trust with a client, especially with the name that you have, yes, that might not be the idea to go with.</p>
42	<p>S4: Exactly.</p>
43	<p>S4: And consider that our work is based on the on the reputation mainly. So, if we do a bad job,. Apart the, the eastern problem for a suit, maybe from our client. Our reputation is damaged, and we lose a lot of, business. Yes. So, the damage is huge in our work. So, every company have, I speak about this for the before. So, in our work, the name is essential. And if you, do bad jobs, the market is very, very, very small. And the client speak, and you risk doing not work with the important clients in the future because your name is, damaged. So, we try to do our best effort every time in order to be sure that the name, is not damaged and critically.</p>
44	<p>INT.: Okay. So yes, I mean, it makes sense. I was just, trying to figure out whether there are any, any steps where you say, mm, for example, I do not know, assuming you have an SME and you do not have prepared, due diligence nor audited records, so you kind of have to go into the Excel sheets and get all that together. And for example, for me that would have been a sensible task because it could be that you mistype a number and I do not know, miss a zero in the Excel, which then turns out to be a major problem. So maybe more thinking in terms of. Systems and data collection, and less in terms of, how you perform the analysis. Because in the end of the day, I think we can both agree that the professional will not be rationalized away from all this. I think the real benefit in this technology lies more in taking away annoying, tedious tasks like data collection, like verification, making sure everything's original, making sure the right persons have access, but it will never perform the analysis for you, at least not in a five 5 to 15 next years I think.</p>

45	<p>S4: Maybe with the artificial intelligence plus blockchain. Okay</p>
46	<p>INT.: One day maybe. Okay. All right., so much for the sensible task. I do not have much more., maybe before we go into the last part, I have one little question. I have gotten the notion from our talk. Now and now thinking about the other interviews as well, that., the non-enterprise clients. So, the because the enterprise ones are usually all audited and usually all audited by big four. So, there is a little margin for error within the financial data. But as far as I understood now the s let us say S and M companies that. More rarely are audited and usually have smaller financial departments. So, I take it is harder. Your job is harder in this realm, so maybe the whole innovation would be more useful for smaller and mid companies where the data quality and just the data availability in general is worse. I mean, did I get this right? Or can you comment on where you see the biggest potential?</p>
47	<p>S4: Yes...</p>
48	<p>S4: I think so, especially in the analytic company, because as big as the company is if they want to perform. In a good way. They need to have all data in order. So especially if it is a multinational company with a lot of divisions, with a lot of, complexity to manage the data, they tend to have a good ERP, a good BI and a structured the financial department and the controlling department and so on. So, the information tend to be more accurate than when you need to speak with the SME company. They tend to be understaffed. Not every time. But, as small as the company is, as high. The problem is in terms of data quality, this is not a golden rule, but it is something that we observe., of course, there is some exceptions of, well-kept company also for very small company, with a structured department and so on. But usually we, we tend to see that, the smaller the company is, as much as higher. The problem is in terms of data quality.</p>

49	<p>INT.: All right, I have, one little, quick fire round about the assumptions I made in the pdf I showed you. And after that, I think we are through. I would ask you, maybe you can already think of that., if you have any case in mind, I do not need to name anything, but, any example you could give with the financial due diligence did not go well. Or if you have heard of one, I mean, does not need to be from your experience, but, you can maybe think about that for a second., in between, I have you should see them on my screen., six assumptions that I, Yes, derived from my work so far. And then, try to validate, try to negate, depending on whatever it is., so if you could maybe comment on each of the sentences from 1 to 6, does not, does not need to be good nor bad. Just whatever comes to mind., does it resonate? Does it not resonate and so on.</p>
50	<p>S4: Okay. Very quick, I sorry, but I have a hard stop at 12.</p>
51	<p>INT.: Yes. No problem.</p>
52	<p>S4.: so M&A transaction. Lengthy, lengthy, and somewhat ineffective.. (...) It depends. It is not., Full. True</p>
53	<p>INT.: Okay.</p>
54	<p>S4.: this is one of the most time consuming, therefore costly phases of the whole process. Yes. (.), I agree with this. Sentence. Especially bad, rushed or flawed financial decisions can lead to bad positive performance... Can my lead... Yes.</p>

55	S4: But obviously.
56	S4: It is not. It is hard to tell whether it will be the only reason. So that is why I say it can., but it has the potential to influence, let us say maybe that is a bit.
57	S4: Yes, maybe I know about this due diligence performed by one of the big four for one, one of, one of quite big, healthcare company, Italian, Italian, French healthcare company. And, the financial due diligence, showed, a better situation of what the, the, the, the buyer found when they enter and that it quite it was, it was, yes.. .
58	S4: It was a big thing.
59	S4: In the news, difficult.
60	S4: To manage this situation because they have financing to buy them. So, the bank asks for clarification. And so, it could be yes, institutions have recognized blockchain technology's potential and start implementing use cases to address. No. (..) I do not know., I do not know. I know that we have a blockchain department in UI, I think at the global level, but I do not know, about what they are doing or what their work can impact our day to. Day-by-day activities.

61	INT.: Do you know from the other, from the big four, whether they have developments or at least, like your bureau or. If not, it is not.
62	S4: I do not know. I am sorry.
63	INT.: No worries, no worries.
64	S4: In traditional accounting, auditing data and records can be tampered with. The. Which in turn enables accounting fraud. (..), yes.
65	S4: Yes.
66	S4: I do not think I am not thinking only in terms of fraud, but also in terms of negligence or, simple mistakes.
67	S1: Yes, it does not necessarily be. Yes, on purpose in.
68	S4: Active fraud maybe. Yes. But it is something that can be translated into a very big problem for the board of directors because they are responsible for the numbers. And of course, even a simple mistakes can be translated into, some, fraud accusations. Allegations. And I am thinking about also in terms of, tax, because also the tax authority can rely on right number if the blockchain validator nodes and all

	<p>data. So, it is something that can help. Also, the tax authority information asymmetry and lacking transparency can impact M&A deals negatively. Yes of course this is 100% true.</p>
69	<p>S4: All right. Good.</p>
70	<p>INT.: That is it for my side. I got the notion you have to go quickly. So, please feel free.</p>
71	<p>S4: Sorry.</p>
72	<p>INT.: No worries, no worries., just, two final questions. Maybe, they are not content wise., first of all, would you be fine if I have any follow up question that I write you an email or on LinkedIn or something like that?</p>
73	<p>S4: Yes.</p>
74	<p>INT.: Okay. And the second one is, if you have anything that wants, that needs to be anonymized, the video will not be shown to any professors. It is just a transcript. But if there is anything you want me to take out or anything, anything you want to comment on, let me know. I am planning to hand in the thesis on February 12th, and I would send you a copy on February 12th. if you do not want the full copy, I can, try to make a key insight, summary, but, yes, that is my next steps.</p>

75	S4: Very interesting. I would like to read the. Sure. Very interesting.
76	INT.: I'll provide you a copy.
77	S4: Thank you very much.
78	S4: All right. Thanks to.
79	INT.: You. You took the time, and it helped me a lot. So, thanks again. And. Yes. Have a good day.
80	S4: Good luck with your thesis. And catch up later if you need more clarification about something that I said.
81	INT: Of course. Thank you.
82	INT.: Thank you. I'll let you know. Bye.
83	S4: Bye.

1	<p>INT.: I do not know. Okay, so now we are back, I started the record. So, for the record, are you still okay with being recorded for the purpose of this master thesis interview?</p>
2	<p>S5: All right. Perfect.</p>
3	<p>INT.: Okay. So welcome, thanks for making the time. I know time is the essence for most of us these days, maybe to start off, we can try with a little introduction. Maybe you can provide some information about you, what you do, how your connection is to M&A and due diligence, what you've covered, some general experience, maybe to start with.</p>
4	<p>S5: Sure. No worries. Yes. So, happy to be here., I started, as a student in, economics and business administration, in the CEMs program and Indiana, after that, I have been a strategy consultant, for around ten years, I would say. And out of those, definitely spent like 3 or 4, in, telecom project. And many of those projects were actually related to or actual due diligence projects, mostly covering the commercial diligence part, which partly had a financial diligence part included in it. So really, building the business cases and then validating the numbers and all that that we got from the client. (..), right. And yes, at mm1, I am no longer doing the topic. My experience is a bit older. (..) Coming up. All right. Perfect, perfect.</p>
5	<p>INT.:, okay, then maybe to start off with, regarding the due diligence projects that had, some connection to financial due diligence, can you explain in a bit more detail and a bit more generic way what you had to do, where the data came from? Just comment out the process a little bit.</p>

6	<p>S5: Right. So. So back when we did it, the data rooms were quite new. I know that by now, it is normally a data room where, all the input data really comes from. Before that, it was just folders, emails, all that stuff, so once we had the data, we normally build our own business case. I mean, we had some templates that we could use, and then, adjust to the client where we kind of try to replicate the data we got from the client, to see whether we understand what they are trying to do. Also, to see where the bell path, might come from, to really be the, the tricks they might have used, in preparing business cases in, specifically, forecasting numbers, obviously. So, it would be more or less, hopefully, Okay. Not always, but most of the time, and then the main task really was to find alternative sources outside of the company, then to, to validate, forecast market figures through,. Assumptions, think like that and really build your own view on that and give you an example, if when the client views or the target, I would say I use assumptions of, we want to increase our market share by 10%. And, but in the last ten years they've only been like shifts by 1 or 2% in the telco sector. That that was more the case. Because, yes, competition is tough and pretty much locked in. Everybody has a contract, so there is no new market to tap into almost, so, yes, those were the key jobs to find out what the assumptions are and then to challenge them.</p>
7	<p>INT.: Okay, regarding this, I have two follow up questions. First, the data where you said you have to somehow get it. It is nowadays usually in a data room. Did I get it right that this happens more in a push and pull basis. So basically, you have a list of requirements. You ask the requirements to your client in case they provide everything. You have no further questions in case they do not provide everything you have to go back and forth to get the data you need. And this is usually done in a let us say, manual way. Or how does the communication happen?</p>
8	<p>S5: I would say it depends to a certain degree. I mean, the more professional the whole thing is, specifically, if the buyer has the expertise, but also other partners like investment bank, etc. but sometimes they have like ready-made lists of things they need and the client required them to just put everything in, which never happens, obviously. So, there is always a back and forth at some point, and to varying degree</p>

	<p>depending on the client really and both in terms of data itself. I think that the one thing is to list complete is It is like a check mark everywhere that the one topic, but also It is a data provided consistent that even though the bigger problem in the end , because sometimes you get like 2X2 sheets, but the numbers do not add up, or different views and data, things like that. Typically, when it is bigger you have consolidated company and all those things. Then then it gets really complicated. Yes. So, I mean It is never finished. You always have a follow up question. That is for sure.</p>
9	<p>INT.: Okay. And, so sorry, I, I lost my train of thought one second, okay. So, the way I get it, the data is more or less there, but it is still somehow a hassle. It is, it is always involving some form of communication. Did you ever have the possibility to pull any data by yourself, or is there are there have you experienced any other cases where data was, available in self-service style?</p>
10	<p>S5: not really. I mean. No, and I have not heard of it. I think it is really I mean, yes, okay. Everybody is secretive even there, they want to adjust the data before they send it to you, that is at least the experience that I had very often, yes. And he never gets, access to, like, SAP systems and things like that.</p>
11	<p>INT.: okay. Okay, great. And. The other question I had is this data is there or for now, let us stick to the financial data. Is it being this has this always been data that was audited and consolidated, or is it depends?, I mean, obviously it depends on the project. But just from your experience, does it how I have to be careful because I need to leave the questions formulated open. So, I have to rethink. I am sorry, how would you assess the, the level of, let us say trustworthiness of the data you get. Okay.</p>

12	<p>S5: so when you said audited, you mean, by an external auditor or somebody within the company had a look at it? Okay. Yes. No. I think normally the, the data request features audited data, that is for sure, and the thing on the top level, it is almost always audited. Yes, I mean, normally companies have the requirement anyways to audit and then you get the data. I think once you start drilling down, then the trustworthiness and also the reliability of the data decreases. Because when you say, okay, could you give us the set of data or the data from some shops, and things like that, then this deteriorates. And, what I said before this, matching those data points to the audited data point It is a huge hassle.</p>
13	<p>INT.: Okay, so the way I am making.</p>
14	<p>S5: Sure, it is good and.</p>
15	<p>INT.: The way I get it is, it is, it is, usually you can asse the data is correct or more or less correct on the on the highest level, but the more you drill down, the more potential there is for, let us say, divergences between the actual and the story that is told by accounting. Okay.</p>
16	<p>S5: Exactly.</p>
17	<p>INT.: All right, good, good. So much for the for the general process I.</p>

18	<p>S5: Like it is not necessarily just to put that in perspective. I mean, it is not that somebody tries to screw you. It just is very then often and,. Yes. And it is difficult to match them. Somebody did that once in the past, but you never know, at the same time frame or how you can adjust it in between, to match the, the overall progress. Yes. Yes. I do not think It is really a bad faith, just.</p>
19	<p>INT.: Yes, yes, I wasn't, I wasn't, insinuating that that it was necessarily bad intentions, but still it gives, margin for error, even if it is not on purpose, that data could be tampered with or not consolidated. At that point, we would have issues, let us say.</p>
20	<p>S5: Yes, even not necessarily that, but just different systems, look at data from different perspectives and bringing them together. Again, it is just a completely simple and very many times. Yes I agree.</p>
21	<p>INT.: All right. So, going from this process we just spoke about, from your experience, what were the, well, it does not have to be good or bad, but to give an example, like pain points or, excruciating, time consuming tasks, maybe to analog tasks, but also what went really well? Where is the high degree of automation? If you could comment a little bit on your pain points, bottlenecks and also the positives, during this process, that would be helpful.</p>
22	<p>S5: I think experience is definitely one of those things where once you have the tools in place, I mean, we worked with Excel a lot back then, and from what I hear, it has not changed that much. But definitely been some improvements since then, which I do not know, but being prepared, really having your structure, your intention intended structure ready, ready when you start and help them up, obviously. Because then you can just, and you know, where to look for, and which, questions to ask. And you already have your data request ready, that is definitely best practice to be prepared. And, I mean, yes, use, experience consultants and, tools. That is definitely helping, the issues</p>

	<p>is. Well, we already had it, so I hope I do not... The biggest challenges. Yes, really matching data, really matching different sources, finding the right people as well to ask questions, specifically drill down questions. I think that is one of the biggest issues, so that people can have the right people to really answer the right questions. That is not simple, because, yes, then many are not prepared, for that. If you have. Good question. All right, what else? And I mean, human error is still,. On a big topic. I think I even wrote an account of one of the banks that were involved with made a mistake and, that accounted for like 200 million or something, and nobody realized. And that is because, I had a question about something else, and we were like, hey, this can work somehow. Something does not fit. And we checked and found it. Yes, but if we did not have this question by chance, it might have been the final result, actually. So that is it sounds crazy, but it was the case. Yes. All right.</p>
23	<p>INT.: So, any kind of, mechanism that could, let us say, double check in a way, is this sensible and make this does it make sense to, in this case, spend 200 million on something, that that would also be helpful. I, I kind of get.</p>
24	<p>S5: Absolutely. Yes.</p>
25	<p>INT.: Okay. I have a follow up, in terms of, matching the data. So, from, from what I hear from previous interviews, and, like, fully financial due diligence experts is, basically what they say is anything that can improve the data accuracy, the validity or the, like the originality, so, so to speak, are we sure this is the newest docent? What? So and so on and so forth, or everything that in that case somehow improved these dimensions, ultimately also improves due diligence. And then in the latest step, financial due diligence as well, can you comment on this? Do you would you agree from a maybe more outsider perspective or, what is your experience in this?</p>

26	<p>S5: Absolutely, for sure. I mean, the example I just said goes into the same direction. Yes. Yes, really double checking, making sure that the data is valid, and you use the newest available data or. Maybe not even news available, but the news confirmed it. Yes. That is better. . . That is really something that that helps. And really the,. (.o this mix. And matching, I think is super important that anything that helps you, bring data together, make sure It is the same level we are talking about. It is the same, even currency, for example, or that. You know, that is the real example. I mean, you always have to take care. And are we talking about millions or thousands and things like that?, the. It is important that if you have something in the background, checking, for that I think helps a lot.</p>
27	<p>INT.: Yes, I agree. I mean, it just makes sense, I think from a less professional point of view, let us say, that the more real time, the more precise your data is, more reliable your data is. And if you are sure that the data comes from somebody who's actually allowed to create it, that should help business processes in general. I mean, that is my take this, how I see things, but I am glad that, business professionals are somehow, also seeing this.</p>
28	<p>S5: Yes.</p>
29	<p>INT.: All right, sorry.</p>
30	<p>S5: I think I lost you for a minute. Yes. I think the tunnel it just after. Yes. My point was that I am not sure that real time is actually the best, in the due diligence, it might be the best to make a business decision, but not necessarily in due diligence, because you cannot really</p>

	<p>match. You never have real time data on everything. Yes. And so, it is better to do that before is to have the latest data but reliable one. And that can be correlated to everything else in the company.</p>
31	<p>INT.: I mean, yes, I mean, for real time is, at least as of now, really hard to do, but you, I mean, with different systems, you could get, like, within a minute, real time data, supposedly, if everything would be.</p>
32	<p>S5: But not on everything. Yes, not on everything. Exactly.. It will never be a comprehensive data set, and I think that is really the point I was trying to make before as well, a lot that it is really about the comprehensive data and not the, the new, and that is why It is really tricky with your plan. I mean, obviously it would be the perfect thing in the future for sure, but I think we are still quite far off that.</p>
33	<p>INT.: Yes. Yes. I think, before quant computing, we are not there yet. All right, good. So now that we spoke about, let us say ineffective or effectiveness, I would like to move to tasks, that are crucial in a way. So, to explain this, maybe crucial for me, would be any task that is either affecting the total due diligence output, massively so, I do not know, 200 million in the wrong row. That would be done in a crucial task, in my opinion, but it can also be any, any task that is a bit susceptible for fraud. As we said before, it does not necessarily need to be fraud on purpose, but in any way accident or on purpose, a fraudulent activity. So, if you have any tasks in mind where you say, I do not know, for any example, maybe a stupid one, the calculating the EBITDA, if that is done wrong, that would be terrible, to give an example. So, if any tasks or steps come to mind for this, dimension, please let me know.</p>

34	<p>S5: yes, I think it is I mean, that is obvious. I mean, that those quality checks within whatever tool you use to validate the data, that is for sure that that is one of those. I think the second one, which is even harder to tackle is assumptions. Whenever you for forecasting things like that, you have to do assumptions. And this is obviously always a big... [connection broke down]</p>
35	<p>What did you hear? It is always a big...</p>
36	<p>INT.: It is always a big and then nothing.</p>
37	<p>S5: Okay. Yes, it is always a big, topic on how you make the assumptions. Because you can make them just like, you know, ten maybe., or you have a huge, little business case behind it that really, tries to, get to more to have validity. Let us put it that way. It will never be 100%.. Right. Yes. We would all be millionaires, but that is really a big question. And it is very important that assumptions are taken seriously and diligently, and there is huge room for very bad, assumptions to very good assumptions. Everything in between. And obviously It is also a time frame. I mean, you have months you can do better assumptions if you have a few weeks or days. So yes, but this is definitely something that, make can make or break a business case and the validation or the validation basically, I mean, 1% in market value or market share, can make a huge difference. Okay.</p>
38	<p>INT.: And these assumptions, I mean, they basically depend mostly on the data, I asse. So, data validity again becomes pretty important. But the generally It is done by a person. Right? I mean It is a person using It is his or her brain and then interpreting whatever number she or he sees. All right.</p>

39	<p>S5: Exactly. And obviously you have forecasting tools and there is a lot of algorithms that are trying to forecast stuff, but it is also based on other stuff. Yes, sure. I mean, you can make, when you just expect extrapolating is one thing, but really making bigger assumptions, specifically when you say, okay, we want our strategy is doing that and that and that by this strategy we think we will get to x, y that is always, an assumption. It is not extrapolated because it brings in new, completely new drivers. And those drivers are then based on other assumptions. Mm. Yes.</p>
40	<p>INT.: As usual.</p>
41	<p>S5: All right.</p>
42	<p>INT.:, good. I think that is the, the main topics I had on my, on my sheet, how well of known are you in the whole blockchain topics.</p>
43	<p>S5: Not too deeply into it. I mean, I know what blockchain is, what it does. Okay. Some use cases that have been tried out, but that is pretty much it. All right.</p>
44	<p>INT.: So maybe just, without giving you too much hints and, and, I mean, you know what this thesis is about, but, on top of that, maybe if you can, just from your mind, right off the head, speak and, tell us or tell me where you see, the advantages or so. Are there more in</p>

	terms of, I do not know, security or more in terms of transparency? Where do you see the advantages and where do you see the use cases for, let us say, our world, the business world, M&A world in parentheses.
45	S5: Yes. I mean, I mean, it is not that simple, yes. Five years ago. Everything will be blockchain, but, yes, I think it is really the transparency on process. So, it is not really transparency on data, but transparency on process, because you can see who changed what and well, not why, but at least, I have a,. In German, it is "Revisionsicherheit" So, yes, it cannot be changed. So, do you really know, even if somebody fucked up, you know who fucked up? Which is also already something that is good, so. So that is one thing. And. Yes, that. Probably the biggest thing. Yes. And you just see the changes and, you know, the, what has changed in the process. Yes, as I said, not too much of an expert. So that. Yes.
46	INT.: No, no, it is I mean, that is.
47	S5: Why I asked.
48	INT.: Right off the bat. Okay. Perfect, good, good. I think I have what I need for now. I have, six assumptions I am going to throw on the screen in a second, just basically, read their six. Yes, just read them 1 to 6, and, and comment on them if you can, if you cannot or, do not have anything to say, yes. Do not. All right, all right. Just give me a second. So, you should see them on my screen now... when you can, ülease go ahead.

49	S5: As you like.
50	INT.: Can you read them, or should I make them bigger?
51	S5: No. That is fine. All right, yes. The first thing,. Honestly, I am not sure I mean it, honestly, the question definition, but I mean lengthy. All in all, yes. Probably yes. But I think by now the, specialists, are so good that they can do transactions over very quickly, actually. And in effect, if not sure. I mean, there are real specialists that are really good at that. Yes. Nothing else. So yes, I am not sure I would completely, agree to that. (..) And the second one. (4) I think that is even less so. Yes. I mean, I have seen due diligence is done in a month. I mean, like thirty people sitting all the days and nights, but still, that is what they paid for a lot.
52	INT.: A lot.
53	S5: Yes, yes. So, so it is I am not sure that it is really. It is work intensive, but not necessarily time consuming.
54	INT.: Okay. Still, thirty people would be relatively expensive, I am assuming, depending on where they.
55	S5: Absolutely, yes. I mean, the workload is huge, that is for sure, but you can parallelize it. You can cut it pretty short. Yes, it is getting expensive for sure, but the costly part I completely agree.

56	INT.: All right.
57	S5: but yes, for sure. I mean, if you if you buy a company based on wrong assumptions or that you can have, extremely high,.
58	INT.: Yes.
59	INT.: And?
60	S5: Let us look at.
61	S5: X for example.
62	S5.: Yes that is a perfect death. That took.
63	INT.: ...A moment.
64	S5: And I have no. ..

65	S5: ...Clue about the fourth one, okay.
66	INT.: Yes, yes. I mean, it is mostly big four oriented, just to see how the professional world is, because they are doing EY is doing a lot in blockchain, and I wanted to know how many professionals see or even notice that.
67	S5: Yes, I just do not.
68	INT.: Yes. No worries.
69	S5: Sure. And I agree with the fifth one. Yes, I think the more reliability you get, the more you, data is non. Adjustable. Non changeable.
70	S5: Yes.
71	INT.: un-tamperable.
72	S5: un-tamperable. Yes. Very nice. Yes. Exactly. I mean it is quite interesting that that is even accounting standards are going that way right. I mean in Austria we are allowed to keep only digital records of, checks for example. But only if you can prove that it, un-tamperable.

73	INT.: All right.
74	S5: Which is not simple because you need special systems for that. You cannot just put it in SharePoint because, yes, yes, we all know it.
75	INT.: But so, this is already done in Australia. Do you know how?
76	S5: There...
77	S5: ...are specialized systems that operate under quite expensive buy now we are actually thinking to do it for [Company Name], but we refrain from it so far, but it might actually change my mind when it gets more common and cheaper.
78	INT.: Do you have a name of a software for me just so I can read up on this?
79	S5: Not off the top of my head, but, if you check, search for that, definitely find something.
80	INT.: All right. I. Yes. All right.

81	INT.: good. I think that is it, that was five and six, right?
82	S5: that was five. I have not checked yet, to be honest, but might be one second.
83	INT.: I am trying to find it.
84	S5: Yes. I mean, for sure.
85	S5: Absolutely.
86	INT.: Yes. I mean, it sounds like a no brainer, but it is hard to, validate assumptions like these when you've never sat in due diligence and nobody's really willing to tell you what they do for 100K a year.
87	S5: Hahaha. Yes. No.
88	S5: It is true, 100?

89	S5: Well, yes.
90	INT.: Entry position let us say. Yes.
91	S5: Yes, exactly. No, you are right.
92	S5 No, but it is definitely one of the main jobs that you have to try to reduce the asymmetry for one side. And I mean transparency and this symmetry, the go hand in hand. But that is why you have to ask questions and, dig deep, and that takes time. And money.
93	INT.: Yes, usually it does. All right. Perfect. So that is it for the six statements. I have one last question that came to mind before I forget. so from what I, what I, what I heard now from our interview and from other interviews as well, and, and what my work has shown over the time is that I, I get the notion that the whole blockchain and tokenization topics are maybe even more important for the audit part than for the actual financial due diligence part, because the financial due diligence usually relies on already audited, consolidated, whatever reconciled data which is supposed to be true, whether it is true or not, does not matter. But, so what most of the professionals said so far is that they see more of a use for this technology within audit, not saying that there is no need for it in due diligence as well, but , that that they would argue the data validity and, and correctness is even more important there because it is a step that is before the actual sale or, acquisition of a company. yes. If you could comment on this, maybe.

94	<p>S5: Yes, I mean, that sounds,. Sounds reasonable.. I could imagine that because, I mean, that is really the where the meat is, specifically the historical data, there no doubt. And the problem with assumptions is that often it is not encoded at all. It is just in some people said, so we are putting that on the blockchain is tricky, to say the least.</p>
95	<p>INT.: Ok, good to hear.</p>
96	<p>S5: Yes. So that sounds like a very reasonable assumption.</p>
97	<p>INT.: All right. Cool. Yes, if you do not have any questions for now, I would explain the, the next process steps. Just so you know, what is going on and where your answers are going, so. Yes. Do you have any questions for us?</p>
98	<p>S5: No. Okay.</p>
99	<p>INT.: So,. Thanks., yes, I am finishing my thesis, it just we just got a, extension for the for handing it in. It would have been the twelve, but it is now going to be the 24th, so it is in roughly a month. I have a couple of interviews left with techies, as I like to call them. and yes, this interview and all the others will be transcribed, the video will not be shown, and the MP3 will not be provided for the professor university whatsoever. If they request it from me, which they should not. But if they do, I will ask you before providing them the data,</p>

	general. Okay, nice. Perfect, generally, when the thesis is done, I would send you the full copy or just a shorter version, depending on if you are interested, if you want it. And. Yes, from my side. That is it for now.
100	S5: No. Of course.
101	S5: , send it to me, in a digital form would be good, and I can.
102	INT.: Yes. For sure. Yes, it'll be. It will be in a digital form.
103	INT.: We are not going to write the thesis about digitization and then come up with 100 printed pages.
104	S5: Okay.
105	INT.: That would be weird.
106	S5: Perfect.

107	<p>INT.: All right. Cool. So last question. If I have any follow up questions, can I contact you? I mean, since we are relatively closely connected, this should be easy. Cool. Thanks. Well, then, thanks a lot. And, have a great evening. End of workday.</p>
108	<p>S5 Thanks. Yes, yes, yes.</p>
109	<p>S5: Me too. Yes. Good luck, it is, interesting topic. Yes. I am looking forward to the final results.</p>
110	<p>INT.: Yes. Me too. All right, all right. Thank you. Bye.</p>

1	<p>INT.: Since this. (..) So. Okay, so it seems like the recording is up and running. So, once again for confirmation, are you okay with being recorded and that I use these contents for my master's thesis? Yes. That is fine. All right. Perfect. So welcome. Thanks again for making time. I know time is of the essence for most of us, so. Thanks., yes, I start maybe with a little introduction. I am Leo, I write my thesis on if and how blockchain technology can improve due diligence, especially financial due diligence in M&A context. So as far as I know, your blockchain expertise is more limited. So, you are here for the M&A side of things. Absolutely. Which is perfect, because it is really hard to get insights to the actual proceedings of M&A when you are not in one. So maybe to start off, you can, say a few sentences about you, what you are doing, what your experience in the M&A world is.</p>
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2	<p>S6: Yes.. Yes. My name is Finn Anderson. I am, Vice President in the [DAX-listed German Bank] Investment Banking team in [German City]. So, focusing on German clients broadly speaking, and I have been with the, with the bank for, roughly six, almost seven years. And I primarily focus on M&A, it is kind of broader coverage for, for the German speaking region, but it is mostly M&A, and also including some, exposure to ECM transactions. And it is, across all sectors. So, it is really a product focus, but it could be any client from industrials to health care, real estate, what have you. And, so we typically, yes, advise as the M&A advisor. So not in the financial due diligence itself, but our role is really to coordinate the process and, to advise on the overall transaction and coordinate the due diligence. I think that is how I would, put it.</p>
3	<p>INT.: All right. Thank you. So maybe we can start right there. So, with regard to the process, I mean, obviously depending on the type of transaction, the size and so on, multi control implications and so on. But generally speaking, can you detail out a generic due diligence process at least, yes. The basic steps, the big steps maybe, in what order they happen so that I just can. I do not know, compare this to what I have heard from the other experts.</p>
4	<p>S6: Yes. No, certainly. I mean, from a broader perspective of the M&A process, if you are I mean, it is mostly relevant probably for looking at buy side transactions, doing your own, due diligence and not the vendor due diligence on the sales side. So typically, I would say the first phase of the process, I mean, once you have signed NDAs with interested parties, then the outreach and so on, is really, sending out an information memorandum and giving, kind of a more limited number of parties, let us say 6 to 8 weeks could be for maybe, maybe 4 to 8 weeks, depending really on, how familiar these guys are, with the asset and how long it takes to digest, the, the information memorandum and you give them kind of, let us say, 6 to 8 weeks, before they submit, an indicative bid, which, contains mostly a value, brief description of who's actually, putting in the offer and, then some further details which are a bit more specific to the process, but , could , mostly also focus on, what is the strategy for the acquisition and, what actual due diligence requirements do you</p>

have? How long will you take to finalize your due diligence. So describing a bit what you actually need to get to a binding bid, in say 8 to 12 weeks' time and then, after a down selection, you would typically run a second phase of the process, which is, I would say the actual due diligence process, where then, ultimately with like 2 to 4, maybe five parties, I think It is hard to entertain more than, 4 or 5, because It is really intense for, for the company being sold, with those, you run the actual due diligence process until, binding bid. And from that point in time, it is, it is a bit fluid. How you proceed to signing, how long it takes, depends a bit on have parties actually finalized their due diligence ahead of the binding, but do they need some confirmatory due diligence, kind of super critical contracts, whatever that they have not been shown before submitting the binding bid. And then you proceed to signing and say anything between 1 or 2 days to, taking forever more or less. I mean, something like a month or two months, it could certainly drag on, depending on how. How good the competition is that the sell side has established in the process, and how keen actually the acquirers are, right? So, if it is not the most attractive assets, things can, can really take time, so that that is a bit the broader perspective of the M&A, process, where we would typically advise along all of these steps. And, I would say a typical due diligence process during the second phase, that consists of a number of more or less standard elements that you would expect to see, first thing is a management presentation, held by senior management focusing on what is the company do, what is their strategy for the company, how do they want to achieve their business plan? , so a bit less descriptive, but really what is the strategy going forward? Where do they want to go?, what is the opportunity in front of them?, and maybe what could they do together with the acquirer. Then the next element is, factbook or vendor due diligence reports. Sometimes you see extracts of these already distributed in phase one. If you want to educate people a bit more on the market, for example, you can have a commercial vendor due diligence that is typically prepared by someone like McKinsey, BCG, or any other kind of strategy consultant. And then you can have, either vendor due diligence report or effect book on financials, which is then typically prepared by someone like KPMG, PwC, one of these guys and also a tax, fact book, or legal, fact book, I think it is quite common to have fact books in every process. Sometimes if it is a bit more. Complex, I would say. Then, it makes sense to have also vendor due diligences, which are a bit more like really taking a due diligence lens already, not just descriptive, but really, providing actual interested parties with an outside in view of due diligence, so it is, it is a bit broader or more. Yes, more. More comprehensive scope compared to a Factbook, and those are typically the key docents that you, get to review outside of the VDR, VDR is another really important point, where you upload really

all of the relevant documents along the company from the legal perspective, not just kind of the contracts with key customers and so on, but kind of every document on formation, incorporation and so on, then detailed financial data, which actually allows you to kind of build your own set of financial statements based on the actual trial balances of the company. So, kind of the most, more, or less most granular level, of information that is, that is available to the company. And, then it always depends a bit on what does the company do. But you could have a section on strategy, a section on commercial. You have a folder that covers HR, and I mean all of the functional areas that that you see in the company, that is typically how it is organized. And you would see all of the relevant documents, policies, employee lists. And this is really where, the due diligence advisors of the company dig in, review all of the documents, and. Kind of. Yes. I think the target is to really review every document to see if there is any finding that, could have a negative impact on, on the company going forward. Anything where you say, that reduces your, your price. But on the other hand, also obviously areas of synergies, so where you see opportunity to do something with, with the company, going forward and this is then done by the company itself, with people from typically across functions and then someone from or a team out of the strategy or M&A department of the respective company, those are involved in the VDR and that can actually be easily 50, 100 or even more kind of people that review all of these documents in the boardroom. And you should probably expect, depending on size of the company, that can easily be like ten thousands of pages of, documents, to, to review maybe even 100,000 pages or more, which is quite, quite a lot of kind of information to digest. And that is why you need advisors on, on all of the kind of different functions. And. Also, not only in I mean mostly it is international. So, you will need tax experts from various countries. You will need, accounting accountants from, from various countries that are actually able to review also the specific tax filings in each jurisdictions and, and so on. So, it is really a huge effort. And I think this is the most kind of time consuming, and painful, step of, of the due diligence because obviously you do not want to miss anything, but it is costly and takes really a lot of time. So, this is, this is really why it also takes that long to actually get, to signing in the end. And then to two more elements would be expert sessions, typically you have a basic set which is expert session on financials, one on tax, one on legal, commercial air IT strategy, business plan, you can to a certain extent, do that with advisors mostly. So those guys that were working on preparing the vendor due diligence materials or the fact books, they would typically run the first round of expert sessions, with interested parties. But sometimes it gets into such detail that they will obviously not be able to answer, all of the questions. And then you will need senior management to join, which would be the

	<p>case in any strategy or business plan session, for example. But I think for a first session on, on legal tax, legal tax, and financials, typically the people who prepared all the fact books, they would be the first line of defense, so to say, to respond to these questions. And then lastly, there is Q&A and, and, in every process, every bidder is typically granted, certain restricted number of questions, on a weekly basis or overall, typically it is, it is a weekly limit or maybe even daily..</p>
5	<p>INT.: Welcome back.</p>
6	<p>S6: Sorry. That was the laptop that just died, can you hear me? Well, actually, yes. Yes, I hear perfectly fine. So, last, last thing I was just talking about is the, is the Q&A. So typically, I mean, you can have it multiple ways. It is either people sending Excel sheets, that is more the history. And, today it is more like, oh, it is so organized in the VDR that you, upload your questions and then, there is a process in the background where the other side is gathering answers across the team, and then place that back to you kind of once or twice a week, with a consolidated batch of answers. And typically, I would say people try to limit it at 25, 30 questions per week. But, depending on how long you plan for the actual second phase, probably without you would not get to assigning. I would say, without answering at least two, three hundred, separate questions. And if the question limit is tight, two hundred questions typically means 500 questions bundled to 200 questions. All right. So that that is a bit, the overall scope of, what is typically offered, from, from the sales side to, to a buyer in the due diligence process.</p>
7	<p>INT.: Thanks a lot. No, that was very helpful. I have a couple of follow ups, but I think I am going to push them back a little bit because the next topic I would like to talk about are pain points, time inefficient task and inefficient tasks in general. So maybe we can go straight into that for the VR. I have a couple of questions. Maybe for later, I will note it, for myself and then go back to that, but yes, if you could, because I think it is quite fitting right now, if you could go in a little bit more on, yes. Pain points, challenges, tasks that are too, maybe</p>

too analog, as you said, the ones that may, the questions that may be sent via Excel sheet or whatsoever. So, anything that comes to mind in terms of, potential bottlenecks, because the way I look at the whole thing is basically. And that is why it was interesting when you spoke of the docents to be checked, for example, on a blockchain, you do not necessarily need to check for authenticity and actuality of docents because it is proven by the computational system behind it. So, in that case, when I think of the docents in the VR, nobody would need to check for authenticity. But I do not know whether in the VR it is, granted that they are authentic, so it is hard for me to tell whether it would be an advantage. So, if you can find any. Yes. Pain points, especially time, time is of the essence. So especially tasks that take a long time that could be performed either automated or in a more efficient fashion. Anything that comes to mind in that with that regard?, yes. Regarding the process you just detailed out would be nice, obviously with a little focus on digital information, because that is the one I can use the best. I mean, it is really hard to visualize, HR relations tips for purely binary system.

8

S6: I think. I mean, I thought about it also a bit in advance on what might actually be the, the benefits. And I think for actually the acquirer it. All depends on what you are actually being delivered. Right? So, yes, I can imagine I am not an expert in blockchain, but I think if the target actually is very well advanced and having a digital strategy and, file management and, and so on, right. I think, while the review of the VDR is painful, I think the even more painful process is getting it all together. And obviously, we are already in a stage where you have a virtual data room, where you review all the docents, on screen. And there are still many colleagues around here who are used to physical data rooms. And I have also seen the physical data room, myself still, a few years ago for like, super critical docents. So I think we are actually already one step, further from, from kind of the era of actual physical docents being put in folders and then accountants, lawyers sitting in the same room for like 12 hours a day and reading physical docents and that that is how it used to be in the past, I am happy It is not like that anymore. But you can imagine that if we really decentralized organization like that is, operating in various countries and, does not really have a central management for legal contracts and, yes, I think especially on the contract side, imagine you have like, thousands of subsidiaries that are just companies that hold another company for tax efficiency reasons or whatever, because you have to have a subsidiary in each country where you operate. I mean, it is not entirely true, but larger organized nations tend to have

a lot of subsidiaries and having all of the kind of legal docents for these together, I think that is already a challenge. And, if you ask, one of the larger corporates in Germany, you will probably hear the answer. Look, I think for these set of companies, we would find what you are looking for. But they can tell you right away it will be impossible to have all the legal and incorporation docs for all of the subsidiaries where actually no one really remembers why they even exist, so I think that is, something where really also on the sell side.. Digitization and might be blockchain or whatever solution. But I think really a good strategy and implementation of centralizing data, which is otherwise only available kind of locally, or even physically, then I think that would help a lot. And. Then the question is really, how can you use that to give the right comfort?, that all of this is actually real, and I think that is that is one point, all of the docents being,. Being actually legit.. But the other, the other side is obviously what is in the docents. And this to a certain extent can probably be optimized if you, for example, look for certain keywords or, I think that this is all things that are right now are developing. Right. I review of, of docents that you can point people to. This looks actually critical. Maybe this is something to review, but I am quite sure no company would fully rely on that as of today, but rather want a lawyer to check all the docents. And I think the lawyers are also using tools, yes. For sure.

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INT.: And maybe just to clarify, I am not saying, that technology can replace advisors and legal clerks and so on. I am just saying that, maybe verifying that, a couple thousand docents are actually legit is not the best way to spend the salary of these people, that you usually are way more intelligent than checking docents. I mean, that is the approach, I mean, maybe I'll just share my screen for a second, so what I, what I like to say, or to show is that there are four dimensions in which I think it can help, and I think the most, the most obvious ones are the ones on the right side. So, data quality and accessibility, I think accessibility is what you meant with having the data centralized in one VDR. Okay. So that would, yes, that there is a lot of possibility to enhance, secure access to docents or to digital rooms in general with blockchain. Same goes for data quality by just the inherent nature of the blockchain. If you double book entry everything like an accounting, except it is not a human doing it, but a machine actually directly validating it. It gives you that higher level of security. Generally, the security aspect is there. But I am assuming I mean, I have never been in one that those VDRs, if they are not actually

	operating on a blockchain, which is happening, that they are pretty secure. I mean, it would surprise me to hear that, if one got hacked in your experience, but could be.
10	S6: I think there were actually cases of that, okay. That is one. So that really might be, one of one of the industry leading, data room providers. I think they had some, some issues with that. And I mean, obviously, I think they spent quite a lot of time and money on, on data security., but there is also like really, really critical data in there. Right, which would be of huge value to, to other parties. So, I can fully understand why, why this is actually becoming a target, and cybercrime or whatever. Yes for sure.
11	INT.: I mean, you can have very sensitive docents in there. And then for the efficiency part, I mean, I do not know how much into you are in the crypto world, but, basically this just stems from the, let us say, old hat argent that the new P2P network without the intermediary, obviously, I mean, kind of logically could be faster, more efficient in terms of transaction speed. To be honest, it is still less transactions per second as a bank could handle. So, we win some on the speed side per single transaction, where we lose some in the total transaction vole. So, the efficiency, part is, is more of a technical like the security aspect is more of a technical underlying thing. It does not necessarily need to be more efficient, but it allows for some processes that are more efficient, like smart contracts.
12	S6: , and probably less relevant from what I can tell in, in the due diligence process. Because once docents are actually gathered and verified, there is still a quite long period of reviewing them, and, I mean, in that regard, it is not really transactions happening, right? It is docents being uploaded to, to, let us say, shared drive. Right, with certain, ability to grant. Various level of access rights, but I think there is not much to do about really efficiency, and I mean, once you have the data, it just takes some time to upload it and to. Check that things are complete and so on. But it is not really a transactional yes thing.

13	<p>INT.: It is not a transaction in that sense. That is true. Yes. Okay. So those are basically the four key aspects. And I think the most interesting ones are the ones on the right. So basically, data quality how is data gathered and consolidated and also who can access it and how easily or how not easily. I mean yes. So, that is basically what I think you can do, yes. Then maybe to the towards the next topic, I have, one more and then the rest will be more or less an open discussion, what are, sensible tasks? So, for me, a sensible task is any task that has major influence on the output product. So, the Factbook or the report or whatsoever or tasks that, that allow for fraud does not necessarily mean that somebody does it deliberately. But the typical case of if somebody puts a zero here instead of the one, then maybe we will pay 20 million instead of five. The point that I am trying to find out here is, are there any tasks that are right now not either automated or being done digital? That could be because they are especially important. Or is this the reason they are not done by computer or by machine? By code? Because they are that sensible.</p>
14	<p>S6: So. Yes. If you I think. (4) So maybe starting with what the actual output product is in the due diligence process. And that obviously depends on a bit company by company. And, if you are working with a strategic or with a financial investor, but generally everyone is preparing more or less a due diligence report, right?, which is an internal document that summarizes all of the findings, positive or negative?, and you would. I think what you see most often is that you organize it by a number of work streams. So, there is HR people from the company, and they write a report that could be anything from 2 to 50 pages, depending on how sophisticated companies, how large the target is. And then you see that across every kind of function, there is a report on it, there is a report on cybersecurity, on insurance, on intellectual property, sometimes these get grouped together because head of legal with his team does kind of everything. Or it is more kind of a broader organization where you have one guy for all of these also smaller topics, this is something that you internally.. And then typically you would have your accountant do a financial due diligence report, which is anything from 100 to 500 pages of summary of how do the financials look like, what did we find?, same on the legal side, same on the tech side. Often on the commercial side, I think if you are working with a strategic, I would do a lot of the commercial work themselves. But if you are working</p>

with a financial sponsors, they would typically work with one of the larger strategy consultants, so that is that is what they are after in the end. Right. The report that shows we have looked at everything, this is what we found. There is nothing that tells us, not to go ahead, with this. And then typically this is kind of summarized in, more. More crisp decision docent which is presented to the board, CEO, CFO, or the investment committee of a financial investor. Obviously, there is lots of stuff happening left and right, but this is kind of the key docents that you are actually working towards., so ultimately, it is all decided based on, beautified PowerPoint pages, that is what is happening?, and I think one critically. Thing with regards to value.. Obviously, you. Diligence. All of the past. Kind of bookings and the accounting system. And how do the historical numbers look like?, what contracts do we have in place, that you can all review and tick the boxes, that everything is there, and you did not find anything that seems to be wrong off, you might find. Let us say certain things you would want to deduct from your valuation., which is if there is kind of litigation is a classic example, if you think, tax authorities would see something differently than the seller has seen it the last few years, right, then, there is certain risk that you could find. And, then that becomes part of negotiations, and you typically deduct all of these findings from value, but it is. In most of the cases, it is rather like small things that add up to a certain amount. But every kind of little data point in itself is. Not peanuts., but, but I think in the grand scheme of things, all of these findings would not matter by themselves, but it can well be that you deduct, a decent amount, from, from the actual top line valuation based on the historic findings. But I think unless there is something that really kills the transaction.. Like, really huge legal risk, or you find out that there is one key customer that takes up 50% of the sales. And, I mean, that would scare everyone away right away, and you would typically see that before even going too deep into due diligence, but the actual. The actual value is something that,. Is more based on forward looking, let us say, data, and I think this is something that can less easily be verified or digitized, because it is just something that, if you want to be blunt, the management came up with. Yes. Yes, pretty much they are telling you, look, we are going to grow 10% next few years and margin is going to improve by x, y, z. And then, we take all, all this data on, on the bank side and together with the company, so our client work on the business plan and look what is actually the value. And this is really something that, yes, you look at historic data, but it is all more strategic, forward looking, can you verify the underlying assumptions?. For this business plan. Right. And do you believe, actually that they will be able to achieve what they project? And then I am really. Struggling to see how you can actually. Improve the due diligence, right? But because it is really something yes, you can verify each of

these assumptions in a sense, they tell you we are going to grow by 5% in Germany. And you look at the market report that tells you it is 5% for Germany. Okay. Tick the box. They grow in line with market. But I think it is just. It can get really, really granular. And there is no kind of easy cross check for all of the assumptions that management is making in the business plan. Right? So, you also have to apply a lot of a lot of judgment. And this is really, I think, the most critical task or value driver in the process, which is then less related to the pure financial due diligence on past numbers. But it is really understanding the strategy, challenging the management, and challenging all of the assumptions coming up with your own case, rebuilding it on your own, what would you asse for all of these kind of tiny data points that make up the entire business plan case? Because that is really where the valuation is, is based on. Right. And. Based on that, you derive a certain value or a range of values based on various methodologies, and probably that, we could discuss for hours, but , in the end, you would probably say this is the business plan, and this tells me we could pay a range from X to Y, for this asset. And. This is one element of what you are going to pay. And then there is another element, which is how much do you actually have to pay strategically? Do you want to pay up?, because you are actually, super keen to get the asset. Competition is tight. Or if that is not the case. And. All those things are really. It is part of the due diligence. But it is not actually checking ticking boxes, but it is really developing your own feeling for, for something. And. Finding. Yes. You have to really believe in what you see in front of you in terms of the business plan, because that is what you, what you actually pay for. You do not pay for what happened in the past, but you are paying for what you can do with the company in the future. And I think. Doing a mistake or believing in something that is unlikely to happen.. Maybe in hindsight, and you could not see it at the point where you actually do the transaction, but this is really where, where things,. Well, it really. The critical point is, are you actually overpaying or are you? Paying the right price. I think that is. (..) Yes. And that is the critical.

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INT.: Answer that you want at the end of the day. But maybe if we take us a little step back because, I agree, this is the this is what you want to get right in the end of the day, however, I think this is the last thing that will be done by a machine is I think it is very likely in our lifetime that it will stay human making that decision. Luckily, hopefully, at least in the next, let us say, five to 5 to 15 years, I do not know, I cannot see it happen earlier, but, to go a step back because all these assumption things really hard to do for machine and I would

	<p>not want it any way, but what are the maybe the steps before? I mean, we spoke a lot about, data gathering and data reconciliation so that, I mean, that plays into the decision in the end of the day, because based on how accurate your past details are. Yes, likely the more precise your future, will be. Yes. Are there any other, tasks with more regards to, let us say, digital?, yes. With, with some digital connections. So maybe I do not know who uploads the, the docents in the VDR. Is it a person. Is it, like a multi upload and somebody uploads just gigabytes of data or.</p>
16	<p>S6: It really depends on how the company is organized.. I think best case is that you have someone managing the project on the inside of the company, and that person knows where to go, to whom to speak, whom to speak to and, where to ask for certain data. And then that person actually just uploads it to the data room.. (..) I think often that is not the case. So, you have to, someone on the bank side who's advising has to find out, speaking to hundreds of people in the company. Not hundreds, but maybe like ten people., and check with them what is actually available. Where do you find these data? And obviously, for someone coming from the outside, it is really hard to tell somebody on the inside. What is the critical docents. Right. I have to be before the transaction, I typically have no clue what is the type of contracts. What is the critical docents really in this certain industry, of course, we have industry experts who can tell us, but every company is just slightly different to the other. And some companies do that very well from the inside. They know what they have done, other processes. So, they can already judge, look, this is critical. We need this set of docents, and then they gather it. But obviously it is a lot of discretion in selecting what is actually ultimately being uploaded to the VDR. And, then also it is one step to upload all of this, but then typically someone more senior would scroll through all of the docs, or at least the docent list to sign up, sign off on it, so it is a really, really painful process, and gathering it and reviewing it. And then one point, that that we have not talked about yet is redaction, yes.</p>
17	<p>INT.: That is fun.</p>

S6:, which is increasingly being optimized and I have to say it starts working quite well in certain areas. So I think, for example, if you have a standardized contract, where the critical elements are always same spot on the page or it is always similar wording, then , I can actually help you a lot in Pre-defining where you have to take a look at and then you just confirm, okay, redact this, redact that. We like that next page, still a manual. Cross check, so to say. Right?, but you do not have to read every docent in full. I think that is again also on its most of these things I think are on the preparation side of things for the company being sold, where actually it can help to, to set up the VDR to, to review the docents to the redaction. And, being organized about your data internally, I think that that just helps.. Obviously, historical financials are critical. Element of the due diligence, and. One thing is validating the underlying data. And I think that is just, very challenging. And where you often see, I mean, not often, but I think if there is some kind of fraud, it is more because someone has been doing fancy stuff with historical financials, with things like Wirecard. But, I mean, that is, that is an example, but it could take similar ways also in an M&A transaction, like if CFO just, does some fancy bookings, which actually did not happen, financials look better. Okay. And I think it is really hard to identify such things if they are done by someone very, very senior in the organization because of course. You. You might look at the list of transactions, which probably is going to be uploaded to an Excel sheet and it tells you we have sold X to customer, whatever, for €100 and then €100 here and there. And it ss up. But. You cannot. And you are probably also not allowed to speak to all of these customers to check with them. Hey, did you actually buy this from them? Did this transaction actually happen? So, you somewhat have to believe in what you are being presented is accurate, right? So that no one I mean there might be smaller errors. I think that is not going to change the grand scheme of things. And all of these, let us call it smaller errors is, is, stuff that also the accountants, then deal with a lot, because their job is actually to see is there anything that we need to correct and presenting all of this underlying data? Right, is this booking whether something that happened in 2022 or is it actually right to be in 2023? And then you have all of these adjustments that tell you, look, maybe the reported numbers, if you just take everything from the system for granted, that looks like this, but we think it should actually look like this, because this belongs here and this belongs there. And, on a normalized basis, this would rather be that. And then you get kind of, a picture of the financials, there is a quality of earnings report that tells you, look, the reported, EBITDA result is ten, but we believe in 2023 it has been eleven. And then it is up to the buyer side to go all through

	<p>all of these. Yes. Bookings again and check. Yes. We believe also it is eleven maybe It is ten and a half and. Typically this is really also It is a process of judgment, right. There is no not really a right or wrong. There is a lot of accounting choices, which are technically possible, and some companies do things one way. Other companies would do it the other way. And there is a lot of debate on what is the actual underlying earnings, not so much on top line, but really what is what is the EBITDA?, what is the margin? And this can have an impact on, on valuation. Like if you say, look, you told us your margin has been 20% for the past few years, and your business plan also says 20%. But we believe the actual margin is 15% because you do some fancy accounting stuff, and actually, there is not that much cash being generated as you tell us, then it has an impact on value. And if you do not find it, you, you overpay, and obviously it would help massively, if there would be a way to, yes. To confirm that all of the underlying transactions and data is, is actually accurate, because and I can imagine this is actually something that a company could do, like bookings on blockchain probably, or something like that, to really prove that all of the bookings are. Legit.</p>
19	<p>INT.: It is being done.</p>
20	<p>S6: Already. Yes, probably at some companies. Probably. From what I can tell, accounting data often seems to be quite messy, so this could really help with the, with the underlying data quality and, take some burden from actually confirming those data. But on the other hand, I think some things are just taken not for granted right now. I mean, you still critically ask yourself, can this be true, but simply cannot check for every single book entry that it is actually accurate and legit?, so I think the more critical work that accountants do is really on the point of, analyzing the underlying data and looking into the presentation is. Is this really presented the right way? Would we look at this differently? And is the underlying earnings that are being shown to us. Is that actually. Real earnings? Or is that some fancy accounting trick that tells us this company is doing well, but it is actually not.. So. And I think there, technology can help you probably to pre filter certain keywords and, and bookings that you would see in many transactions.. But what it could really do, I think, is to give</p>

	<p>you confidence that the underlying data is actually correct, accurate, has not been manipulated, and this is a comfort that I think it is actually quite hard to get today, or close to impossible.</p>
21	<p>INT.: Yes. This is, it is funny that you say that because it is in line with what I heard from the other experts so far. The more I talk to, let us say, the business side of things, the more the more it, seems like the whole blockchain thing would be even more useful, step before in the audit slash accounting world, because at the end of the day, this is. I mean, I did not know because I do not have the insights until now, but, what I from what I came from, I thought the FDD stream would also reconcile the data and, and double check the entries. So exactly what they do not do, so that is why I thought you could use that technology there. But then, as it seems, it makes more and more sense to utilize the technology a step before. So even before you speak about a M&A transaction to, yes. To guarantee in the first step that data is, let us say, as accurate as possible. This is what, yes. Sounds of more and more, it makes sense to me, what I, I as I did not know, it was hard for me to picture that. The only other question I have is what happens when? Because right now, I mean, Deutsche Bank usually, I am guessing, is handling transactions, that are mid-size or above. What happens if statements are not audited? Because I guess in your case, usually statements are audited or in LA times review. No.</p>
22	<p>S6: Well, because.</p>
23	<p>INT.: Before I let you, speak on this,.</p>
24	<p>INT.: I was thinking in the.</p>

25	<p>INT.: Case where statements are not audited. Then again, you would have you would have the benefit of the blockchain because you could use it to. Audit your statements without having to go check for yourself. I mean, we are assuming obviously the program, and the code is perfect and so on, but yes.</p>
26	<p>S6: Yes. So, I mean, it depends a bit. What is what is being on what is being sold. Right?, so if the transaction perimeter that you talk about is based on a certain set of legal entities. Yes. You will have audited financials for these legal entities and, the feed provider or the also the, the yes, the, the accountants on, on the buy side, they will actually take all of the numbers that are being kind of combined for the transaction perimeter and reconcile all of these to the audited financial statements. And then you will find the statement in the due diligence report that says we could reconcile all of the numbers to, the audited financial statements based on local, GAAP accounting. Or maybe there were some differences which could be explained by x, y, z. And this is something that is actually being done, if it comes to carve out transactions where you actually buy just. Not something that is more existing virtually, because it is part of, larger corporate, let us say, operating internationally. And they have subsidiaries in the US and, in France or whatever, but these legal entities, they do, they have different business lines. And you just want to carve out one of these business lines. So, you have to virtually. Set up a set of financials, which is really, really that is really, really challenging to set up in the first place because you have to define, does this belong to that business line or is it this business line? And everything is done in the same accounting bookkeeping system?, and what is the transfer pricing between those? Does this person belong to this business line or that business line. And that is basically virtually building a company in financial statements that is actually do not exist. And that is obviously really, really hard to reconcile to any audited financial statements. So, you probably audited financials. You will only get ones that. Construct is set up. And someone actually does the closing accounts, that you use to determine the final purchase price payment, and. Maybe. I mean, I think the better data quality at the company and the more they can give you. Information that this is actually accurate data I think the better.. But I think. Separating financials. And the legal entity into two different business lines will always remain a really. I think if you have really, really accurate data, that helps a</p>

	<p>lot. So, it tells you this is actually booked under Business line one. This is business line two. This is but it is not always clear cut. Right. Sometimes one person does 20% this 80% that. And no one can tell you because no system knows what that person is actually doing, so that is a really, really painful process, but I think it could also be improved, if there was like really granular data available that helps you to build this.</p>
27	<p>INT.: Yes, that makes sense, more generally, because this leads to it, all the M&A experts basically said in different nuances, but basically what they said was the more precise and valid and, verified data gets, the better the FDD output will in the end, because basically they are saying we are taking all the underlying numbers and information, the higher validity, authenticity also actuality we have, the better it will be for our performance. So generally, they it sounded a little bit like we do not care as long as data is getting better. Would you? How would you comment on this? Or by better I mean by accurate or. Yes.</p>
28	<p>S6: Yes. I mean, that is true. I think a financial due diligence report can only be as good as somewhat the underlying data. And I think one, one critical point right now, you just cannot make sure that all of the data that is going into your whatever model you set up, for, for the financials, that it is accurate. I think there is just no way to prove it. And anything that helps, verifying the underlying transactions. I mean that. That is a step change in. Your comfort that numbers are actually accurate because you just cannot do it today. Yes, it is impossible. It is just too much. And of course, the asset would also not want you to call off the customers and, and, they then find out, oh, there is transaction happening, for sure. It is just, it is,. Yes. You cannot even. Yes.</p>

29	<p>INT.: Cannot keep it hidden. Cannot, cannot double check without everybody finding out. So. Yes. All right. Yes. Good, so that is that much for the plan part. I have, six sentences on my screen right now. I do not know if they are. Can you read them, or should I put them bigger?</p>
30	<p>S6: I can read it.</p>
31	<p>INT.: I will just enhance it by a bit.</p>
32	<p>S6: Yes, yes.</p>
33	<p>INT.: All right. So maybe if you could just go through the sentences one through six and comment. It does not need to be agreeing, disagreeing. Just, just comment on whatever you feel to comment on.</p>
34	<p>S6: Okay. So, I think, for the first one, M&A transactions typically take longer than anticipated. Okay.. Because people are optimists and think you can get it done on time, but you ultimately do not. And of course, due diligence often brings stuff to light that you were not expecting, and that can already be in preparing the actual due diligence, right? If the sales side is setting up the data room and they find docents that seem to be critical, and then they wonder how to deal with it, I think all of this is just making the process longer than you anticipate in the beginning. Not sure if they are somewhat in effective.. I think all that you do, somehow is being done to give a person comfort, to take a decision. And yes, probably. People that are actually working on the day-to-day diligence, do more stuff to prove or to</p>

	<p>give some someone higher up the chain that comfort, so maybe. Yes. But in general, I think it is a really typically tight process.. (..) Yes. Not really sure if it is really ineffective, but.</p>
35	<p>INT.: Maybe I meant, inefficient. I change the slides today. Might be me. All right.</p>
36	<p>S6: Checking,. My battery. (..) Because maybe, switch off the camera. (4), because I only have 4% left, so. The second one.. Absolutely agree. (..) I think. No. No debate. It is more time consuming and also costly because you have a lot of advisors and people running the due diligence that could actually do day to day jobs in the business. Bed rushed or flawed financial decisions can lead to bad post-deal performance I partially agree, I think. That performance post deal is probably mostly a question of, your diligence on the business plan and, strategy and so on. Yes. If you miss something in the historical financials, it can be costly. But I think, the. Business plan is the more critical for the overall value and performance of your acquisition.</p>
37	<p>INT.: This this refers a bit more to like, like let us say, lighthouse cases. I do not know if you heard about the AOL Time Warner, merger. Yes. And they, they, they missed, inventory, I think inventory of, of assets that, like CDs were supposedly assets and not marketing expenses, even though the CDs would never come back, stuff like that. This is what this refers more to. So, yes, stuff that has been missed or. Yes. Missed. Hidden.</p>
38	<p>S6: No, I think that makes sense, and, and there are probably a few cases where it really went wrong.. But I think in the grand scheme of things, probably on aggregate, the business plan is the more critical thing, but of course, if you rush or if you do not look, at everything, then you will obviously be missing these things. But sometimes you just also overlook something because someone actually wants to do</p>

	the transaction, so, or you actually find it and, you still go ahead. Like. Like by Monsanto, for example, right? Yes. Yes. True. Knew this was coming and they still wanted to do the deal.
39	INT.: And they are still digesting it as well.
40	S6: So, number four institutions have regrouped is blockchain and use case. (...) I can hardly tell. I think that accountants would probably know better, I think from what I see in in due diligence processes, data is often quite decentralized and not having the best quality you would wish for, so I think there is a lot of room for improvement, some people are working on it,.
41	INT.: Within Deutsche Bank as well. Do you know? I mean, you do not need any specifics. Just do you know whether anybody is working on potential utilization of blockchain within your company?
42	S6: That that is certainly I think the I think every, every bank is, exploring on how they can leverage it, perfect. But I think more for, for the own bookings and, and transaction banking and so on. Not, not really in M&A because I mean, yes, we work for six months and then we send out one bill and, I think. That is. That is all we do, traditional accounting data can be tampered with, which in turn enables. Yes, I agree, people can play around with it, and it is hard to tell, or identify that actual bookings are, in existent or not, information asymmetry and lacking transparency can impact M&A deals negatively, yes. So, if I mean, you can review all, all of the data that you see in the VR and ask all the questions that you can think of, of the other side is hiding something, it will go down south for you. Yes.

43	S4: All right. Good.
44	INT.: , yes. This is all I had prepared for, our talk. We are a bit over the one hour, do you have any more questions? First.
45	S6: I would be excited to see the results, actually, to learn what other people may have, may have said, because it is actually a painful process. But, if you were working on a day to day, It is obviously for us, It is always hard to think about improvements if, It is already so time consuming that, you are focused on just getting things done, so really curious to see, where there are, opportunities going forward, and I think for me, the, the essence also reflecting on, on the discussions that we had, is. I think. (..) It can really help kind of in data quality and preparation and, kind of giving you confidence that the underlying data is all correct and complete, I think that is at least the most, the most critical near-t step that I would see for the technology. Yes. And I. Struggle a bit to see how it will actually. Also support the due diligence process, because I think there people will continue to be focused on actual. Menu. I would sell it review, like human review, and will not fully rely on, automated review or whatever, but I think, I mean, this is probably just going to take some time because before hands are being replaced in all of these functions. But I think the most. Useful. Near-t use of the technology is certainly in improving data availability, quality, centralization and with that, significantly reducing preparation time. And also, the due diligence will obviously benefit if there is data requests at a later stage, if that is just simply available and the company knows where to find it and does not have to manually gather data, across the organization. I think that is a bit from what, what I would take away from, from the discussion for myself.
46	INT.: Yes. That is, that is what, I would say too. I went back to the four dimensions I spoke about earlier, and obviously the data quality and accessibility are the main things. I think this is where you can see benefits really quick. The security aspects, I think, is for

	<p>technologists to decide because I honestly cannot really assess how secure a VR is. I know some of them are already operating on blockchain and some are not, but apart from that, I have no IT knowledge deep enough to assess that. But yes, I would definitely agree. It is for sure going to be how valid is the data. How actual is it, can I make sure the person that uploaded the docent had the right to do so? Is this the newest version of the docent? So, in terms of, all these dimensions, I think it could be really useful. And as you said, the reviewing. And then at the end of the day, make taking a decision or, yes, acting on assumptions is always going to be done by human, at least in the very near future for some time.</p>
47	<p>S6: Yes. I am excited to see what comes next, probably will have to work for a few more years. So probably let us, let us see. Yes, but I think any improvement, at least for us also working on the sales side, would be, would be really, really good to see, and would help us a lot also in our daily, daily life.</p>
48	<p>INT.: All right.</p>
49	<p>INT.: Good, yes. As I said, I will send you, a bit before handing it in, the interview transcript so you can read, what we spoke about today, I yes, I think that is about it, anything else?, I will let you know. I mean, when I hand in when the thesis has been defended and so on, yes. If you have any follow up questions, anything you want to change, let me know. And if you do not have any other questions, I would close here.</p>
50	<p>S6: No.</p>

51	S6: No questions for now, if you have any follow ups based on the conversation you have, just reach out, happy to get on the phone quickly any time, if there is anything,. You would like to know in addition.
52	INT.: All right.
53	INT.: Thanks a lot. Thanks for making time. And I have a great day.
54	S6: Thank you. You are too. Bye.
55	INT.: Thanks. Bye.
56	S6: Yes.
57	INT.: Bye.