Business Adaptive Strategies in Crisis: The Case of a Wood Processing Company

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Dissertation written under the supervision of professor Ricardo Reis

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Abstract

Title: Assessing a company in crises: The drafting of an IDWS6

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Keywords: Strategy, IDWS6, Restructuring, Business Analysis, Turnaround Management, Market Positioning

This thesis is presented as a case study and follows the framework of a German corporate law standard, IDWS6, which applies to the restructuring of firms in financial distress. The subject of the study is a wood processing company that produces three main product categories: sawn timber cuts, customized cuts, and pellets.

With high-quality products, advanced equipment, and effective management, the company had maintained a stable market position and high customer satisfaction for many years. However, this case study examines how an expansion investment exposed the business to the risks of highly volatile selling prices. As profit margins plummeted to unsustainable levels and liquidity became insufficient, the company faced a threat of bankruptcy. In response to the crisis, creditors commissioned the preparation of an IDWS6. This thesis presents the strategic components of the IDWS6, structured and conducted in alignment with the methodologies employed by the consultancy firm tasked with drafting the report.

The case study highlights the critical importance of frameworks like the IDWS6. Through this approach, auditors were able to identify the root causes of the crisis, conduct comprehensive internal and external analyses, and develop a forward-looking business model.

Ultimately, the goal of this thesis is to provide students with a practical example of an IDWS6 in action. Additionally, it aims to help students enhance their skills and knowledge needed to work on such report like the IDWS6.

Resumo

Título: Avaliando uma empresa em crise: A elaboração de um IDWS6

Autor: Hubertus Handschumacher

Palavras-chave: Estratégia, IDWS6, Reestruturação, Análise de Negócios, Gestão de Recuperação, Posicionamento de Mercado

Esta dissertação é apresentada como um estudo de caso e segue a estrutura da norma de direito corporativo alemã, a IDWS6, aplicável à reestruturação de empresas em dificuldades financeiras. O objeto do estudo é uma empresa de processamento de madeira que produz três categorias principais de produtos: cortes de madeira serrada, cortes personalizados e pellets.

Com produtos de alta qualidade, equipamentos avançados e uma gestão eficaz, a empresa manteve uma posição estável no mercado e um elevado nível de satisfação dos clientes por muitos anos. No entanto, este estudo de caso analisa como um investimento em expansão expôs o negócio aos riscos de preços de venda altamente voláteis. Com a queda drástica das margens de lucro para níveis insustentáveis e a insuficiência de liquidez, a empresa enfrentou a ameaça de falência. Em resposta à crise, os credores solicitaram a elaboração de um IDWS6. Esta dissertação apresenta os componentes estratégicos do IDWS6, estruturados e conduzidos de acordo com as metodologias empregadas pela consultoria contratada para elaborar o relatório.

O estudo de caso destaca a importância crítica de frameworks como o IDWS6. Por meio dessa abordagem, os auditores conseguiram identificar as causas fundamentais da crise, realizar análises internas e externas abrangentes e desenvolver um modelo de negócios orientado para o futuro.

Por fim, o objetivo desta dissertação é fornecer aos estudantes um exemplo prático de um IDWS6 em ação. Além disso, visa ajudar os estudantes a aprimorar suas habilidades e conhecimentos necessários para trabalhar na elaboração de relatórios como o IDWS6.

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Table of Content

List of Figures

List of Abbreviations

IDWS6	Institute der Wirtschaftsprüfer Standard zu Sanierungskonzepten
MIS	Management Information System
ERP	Enterprise Resource Planning
ESG	Environment, Social, Government
ESRS	European Sustainability Reporting Standards
GEG	Gebäudeenergiegesetzt (house heating reform)
EC-19	Euroconstruct-19
MAP	Marktanreizprogramm (incentive program for boilers)
CAGR	Compounded Annual Growth Rate
SME	Medium-Sized Enterprise
cbm	Cubic Meter
CVA	Company Voluntary Arrangement
BGH	Bundesgerichtshof (Federal Court of Justice)
DEPI	Deutsches Pelletinstitut
DEPV	Deutsches Energie Pellets Verband

1. Introduction

The European economy is currently at a crossroads, and it is indisputable that a period of transformation and change is ahead, especially for medium-sized enterprises (SMEs). In 2023, 17814 businesses (an increase of 22%) declared bankruptcy in Germany alone (IfM Bonn, 2024). For the SME to ensure its exitance, expertise, and proper restructuring tools are needed. The case study was developed to showcase and explain the German framework based on an SME in the wood processing industry. Even with a stable market, proper management, and a well-established position, the company saw major problems in its profit margins due to exogenous shocks, emphasizing the need for the ability to restructure.

The Institut der Wirtschaftsprüfer in Deutschland e.V. developed a comprehensive guideline/framework for preparing a restructuring concept for companies in financial distress called the IDWS6. The goal is to detect issues early and to ensure that restructuring can be appropriately formulated to avoid bankruptcy. It guides auditors, consultants, and company management to restore a company's financial stability and competitiveness. An IDWS6 includes a thorough analysis of the causes of the crisis, an examination of the ability to restructure, and the development of concrete measures for operational and financial restructuring.

1.1. Disclaimer of Nondisclosure

Due to the sensitive nature of bankruptcy, this dissertation will not name the company it investigates but will refer to it as the company. The same applies to the auditor, who will be referred to as the consultancy/auditor. Furthermore, other measures will be taken to ensure the company's anonymity. This might include not naming any people and altering data.

1.2. Methodology

The goal of this dissertation is to demonstrate a draft which meets the requirements set by the IDWS6. The paper methodology will strictly follow that defined by the IDW. Auditors should have all-access to the company internal data to communicate with staff and to review any relevant documents to ensure a proper and accurate evaluation. Within the context of the dissertation, the auditor held a position at the consultancy that was writing the concept, affording the auditor the opportunity to gain valuable insight in through internal documents and discussions with various company employees.

The case study will focus on the strategic and operational aspects rather than including an extensive financial analysis, which is typically part of the completed draft. That means a few

tweaks will need to be made regarding IDW S6 overall framework structure. The intention of this case study is not to provide a step-by-step walkthrough of the whole IDWS6, but rather to give an outlook on the skills and work required from a strategy consultant in forming a restructuring concept.

The completed draft will be a collaborative effort with a consultancy supervisor, and sections contributed by the supervisor will be marked with an asterisk (*). Furthermore, this paper's structure and methodology will be conducted in accordance with the consultancy's practices.

2. Literature review

2.1. Turnaround Management

Looking at the fundamentals of an IDWS6, one can easily spot that it is based on previous scientific research in turnaround management. This chapter will examine the theoretical research done on turnaround management and restructuring, which has been vital in creating the concept and framework of an IDWS6.

The concept of turnaround management is central to the study of corporate restructuring. It involves the strategies and actions needed to lead a company out of a crisis and back onto a stable and profitable path. In academic literature, turnaround processes are considered comprehensive approaches involving operational and strategic changes. The work of scholars like **John Bibeault (1982)**, **Charles W. Hofer (1980)**, and **Slatter and Lovett (1999)** has been instrumental in shaping the understanding of turnaround management.

2.1.1. Phases and Actions of a Turnaround

John Bibeault was one of the first scholars to study turnaround processes systematically. In his influential book *"Corporate Turnaround: How Managers Turn Losers into Winners"* (1982), Bibeault analyzed the causes of corporate crises and the steps required to restructure a company successfully. He recognized different phases of the turnaround process and stressed that each phase comes with a needed resposn:

Stabilization: The initial phase immediately ensures liquidity and business can continue, for example through drastic cost cuts, conversion of excess capacity, and sequentially rebuilding the cash flow of the company. Without this stabilization, longer-term measures could be of little effect.

Change in Management: First, Bibeault noted that a new CEO is often needed. He said existing management is frequently too entrenched in the company's problems and lacks the skills to lead a successful turnaround. New management brings fresh perspectives and strategies.

Strategic Reorientation: After achieving short-term stabilization, the turnaround focuses on realigning the company's strategy. Examples of this strategic realigning are redefining the business model, exiting unprofitable markets, or repositioning the company within its industry. Bibeault emphasized that this phase is often risky but essential for long-term success.

Realizing Growth: In the final phase, the goal is to place the company on a new, sustainable, and competitive growth trajectory. This often requires investments in new markets, products, or technologies (Bibeault, 1982).

Bibeault explained the stages of the turnaround process in the corporate environment (including crisis diagnosis, financial stabilization, and strategic changes). IDWS6 reflects Bibeault's structured approach to diagnose and respond to corporate crises, through its focus on both (i) understanding the causes of distress, and (ii) diagnostic of financial and operational state, to (iii) create a viable business model. Both stabilization and transformation are critical objectives for long-term viability, which is the goal of IDWS6.

2.1.2. Differentiated Turnaround Strategies Based on Crisis Stages

A peer pioneer in the study of bankrupt turnaround is Charles W. Hofer. According to Hofer (1980) in his article "Turnaround Strategies," different restructuring strategies are adopted at different stages of the corporate crisis. He developed a model that distinguishes between various phases of a crisis and demonstrated that the causes of the crisis are crucial in determining the appropriate turnaround strategy. Morrow, Johnson, and Busenitz developed Hofer's work by emphasizing the need for tailored approaches depending on the stage of the crisis. Their work "The Effects of Cost and Asset Retrenchment on Firm Performance: The Overlooked Role of a Firm's Competitive Environment."

Hofer differentiates between two main types of crises, each requiring different approaches:

Strategic Crisis: A strategic crisis occurs when a company has a business model that is out of alignment with market needs. In such instances, Hofer said the emphasis should be on growth and innovation strategies. In order to be competitive again, they need to rethinking its business model and to create new areas or products.

Building a financial and liquidity crisis — In contrast, a liquidity crisis, in which the company is on the brink of insolvency, requires short-term action to restore financial stability. Hofer pointed out that in such cases the priority should be to stabilize the financial structure, be it via cost cutting, asset sales or debt restructuring before tackling more expansive strategic changes.

Hofer also stressed that misdiagnosing the crisis stage can have disastrous consequences. For example, if a company in a strategic crisis focuses primarily on financial measures, it may improve its short-term situation, but its long-term viability remains at risk. Conversely, focusing on strategic changes during a liquidity crisis may not give the company enough time to recover (Hofer, 1980).

Hofer's seminal work emphasized the importance of matching turnaround strategies to the specific nature of a firm's crisis, whether operational, strategic, or financial. The IDWS6 incorporates this strategic alignment by requiring a tailored approach to restructuring. The standard advocates for an in-depth analysis of the type of crisis (e.g., liquidity, market, or operational) and prescribes appropriate measures based on the findings. Hofer's emphasis on strategy informs the development of the future business model in IDWS6.

2.1.3. Key Success Factors in Turnaround Management

The work of **Slatter and Lovett (1999)** in their book *"Corporate Turnaround: Managing Companies in Distress"* built upon Bibeault and Hofer's insights and identified specific success factors for a successful turnaround. Their research was grounded in a detailed examination of case studies and actual corporate restructuring, indicating that successful companies used a blend of short- and long-term approaches. Here are some of the major success ingredients they came up with:

Operational Quick Fix: The first step companies have to take is to reduce the operating cost and become more efficient. Layoffs, outsourcing, optimal production processes, and reducing overhead costs can all lead to cost reductions. These actions protect liquidity and buy time to institute more systemic changes.

Strategic Reorientation: Slatter and Lovett contended that without a strategic approach, operational measures would only yield short-term stability. Rather, businesses need to shift their corporate strategy. Realignment may also entail redirecting their target market, developing new products or services, or refining profitable core competencies. They said rebuilding trust with customers and stakeholders will be a prerequisite for long-term success.

Financial Restructuring: Secondly, and this becomes more critical when the company in question has high levels of debt. Financial reorganization may include renegotiating debt arrangements, coordinating with creditors, or attracting new investment. According to Slatter and Lovett, companies in financial distress typically need outside advisors and financial professionals to help them implement new strategies to restructure financially.

Leadership Change: A recurring theme in their analysis was the importance of leadership change. Slatter and Lovett found that, in many cases, a change in the leadership team was critical to a successful turnaround. New management can bring a fresh perspective, make difficult decisions without bias, and have the courage to implement drastic (Slatter and Lovett, 1999).

Slatter and Lovett detailed practical methods for managing distressed companies, including rigorous financial analysis, stakeholder engagement, and operational restructuring. IDWS6 mirrors these practical methods through its requirements for integrated financial planning, creditor communication, and operational adjustments. The emphasis on stakeholder engagement in Slatter and Lovett's work is particularly relevant, as IDWS6 highlights the importance of collaborative processes with creditors and other stakeholders.

While the academic works and practical studies examined above most directly contributed to the development of IDWS6, other works have also laid the ground. One noteworthy publication, "Organizational Crises" (1988), was by William H. Starbuck and Frances J. Milliken. Their research on organizational crises emphasized the need to detect early and respond systemically to crises that organizations face. The IDWS6 emphasizes the need for an early recognition of the phase of the crisis and appropriate systemic countermeasures that can mitigate the resulting damage, as described by Starbuck and Milliken (Starbuck and Milliken, 1988). The work on competitive strategy by Michael E. Porter is an example of how a broader and fundamental approach to business studies is represented in the IDWS6. In "Competitive Strategy: Techniques for Analyzing Industries and Competitors," Porter introduced concepts like the Five Forces model and value chain analysis to assess competitive dynamics and strategic positioning. The IDW S 6 integrates strategic analysis by requiring an evaluation of market conditions and competitive forces. The process of identifying weaknesses and opportunities for improvement reflects Porter's strategic frameworks (Porter, 1980).

While the IDW S 6 was not explicitly derived from these academic works, its structure and methodology resonate with principles scholars like Bibeault, Hofer, Slatter, and Lovett laid out. These contributions have collectively shaped modern turnaround practices and, by extension,

frameworks like IDWS6, which integrate academic insights with practical needs in restructuring distressed companies.

2.2. IDWS6

2.2.1. The Concept and the Goals:

The IDWS6 is a framework issued by the Institut der Wirtschaftsprüfer in Deutschland e.V., which outlines the professional guidelines for creating restructuring concepts to restore the viability of companies facing financial distress. It aims to establish an organized approach that allows the in-depth evaluation of a company's current position, the analysis of reasons for the crisis, and the pursuit of measures to achieve sustainable competitiveness and profit.

The IDW S6 had one major benefit, it allowed continued financial backer support during a liquidity crisis. The IDW S6 report can help to gain the trust of financiers and business partners again by providing an in-depth analysis of the company's business model, competitive environment and approximately entrepreneurial vision along with a forward-looking sustainable restructuring concept.

The standard stresses the need for a thorough analysis including the economic and legal situation of the company, future of the business, and a plan of action for a comprehensive financial strategy. An IDWS has been trained to follow these rules in order to help create restructuring plans that are comprehensible and realistic and can thus effectively accompany a company through a crisis and back to a balanced financial future.

The standard emphasizes a two-stage assessment process: first, evaluating the company's ability to continue operations without legal or factual impediments, and second, implementing suitable restructuring measures to regain competitiveness and profitability (IDW, 2023).

2.2.2. The Outline

The IDWS6 provides a structured outline for creating restructuring concepts to restore financially distressed companies' viability. This framework ensures that all critical aspects of the company's situation are thoroughly analyzed and addressed.

Key Components of the IDWS6 Structure:

1. Assignment and Execution: definition of assignment scope and methodology
2. Analysis of the Company's Situation: economic and legal status and identifiation of crisis cause

3. Crisis Stage Assessment: Crisis stage identification and insolvency risk analysis
4. Development of a Future Business Model: Formulating strategic vision and defining operational adjustments
5. Restructuring Measures: Creating action plan and timeline
6. Integrated Financial Planning: Financial projections and scenario analysis
7. Summary: Main finings and judgment on ability to

This structured approach ensures consideration of all relevant factors, providing a solid foundation for decision-making by stakeholders involved in the restructuring process (Schneider, 2023). While the components mentioned above are mandatory for the document to be considered an IDWS6, the structure can be adapted to the business or shortened and given a different name, such as a "quick financial check."

2.2.3. Continued revision

Initially introduced in 2009, the IDWS6 has been revised multiple times to keep pace with evolving business settings and compliance scenarios. The initial framework in 2009 provided the foundation for a standardized approach to restructuring reports. A updated version of its tool was published in 2012, refining the guidelines even further.

Due to changes in jurisprudence and feedback from practitioners, the IDW periodically updated the standard. A significant adjustment happened in 2018, and introduced clarifications to better align with the BGH's requirements. The update has been made with a view to making the standard more practical and applicable to small and sort of medium-sized businesses, as critics raised concerns about the length and complexity of restructuring reports (Schmitt, 2024).

The most recent update, adopted on October 13, 2023, introduced significant changes to the standard. This revision emphasizes aligning with BGH jurisprudence and mandates an explicit statement on a company's restructuring capability as a compulsory report component. Additionally, the updated standard integrates considerations for Environmental, Social, and Governance (ESG) factors and cyber risks, acknowledging their critical impact on a company's crisis and the necessity of addressing these elements within restructuring concepts (Tabe, 2022).

2.2.4. Comparing international approaches to Restructuring

In the situation of a financial distress, restructuring the corporation helps ensure business continuity and long-term viability. Different nations have created frameworks and processes

suited to their legal, economic, and cultural contexts. The German IDWS6 is a professional standard that specifically deals with restructuring concepts and emphasizes considerations of the concept's viability and operational. In contrast, other jurisdictions, such as the United States, France, and the United Kingdom, rely heavily on formal legal procedures. This chapter examines the differences between IDWS6 and other international approaches, such as Chapter 11 in the U.S. (Cornell Law School, 2022) , the French "Procédure de Sauvegarde," and the UK's Company Voluntary Arrangement (CVA) and Restructuring Plans focusing on aspects such as binding nature, objectives, creditor roles, and associated costs (Palmer, 2024).

One of the most significant differences between IDWS6 and the international approaches lies in their legal nature. IDWS6 is a non-binding professional guideline; its value comes from widespread acceptance by creditors, banks, and courts in Germany. By contrast, frameworks like Chapter 11 in the United States, the French "Procédure de Sauvegarde," and the UK's CVA are legally binding and court-supervised. Chapter 11, for instance, is a formal bankruptcy process that grants legal protection from creditors while the company reorganizes. Similarly, the "Procédure de Sauvegarde" in France and the UK's CVA and Restructuring Plans involve judicial oversight and require creditor approval.

Mainly, the IDWS6 is developed now that shows a company's mature approach of identifying its proven capacity to continue business operations and not going bankrupt. International frameworks, in contrast, tend to focus on providing creditor protection and preserving debt in the short term. For instance, a U.S. Chapter 11 is concerned with getting debts reorganized, maintaining the debtor as a going concern (continuing to operate). The French and UK also favour negotiations and settlements with creditors when seeking debt restructuring or repayment terms.

In the case of IDWS6s, creditors are also consulted and receive information, but they do not formally vote on the restructuring plan. The framework will only work and succeed if there is building trust through a well-formed and credible plan. International frameworks, on the other hand, frequently stipulate creditor engagement and voting. For example, under Chapter 11, creditor committees negotiate and approve the reorganization plan. Likewise, the French Procédure de Sauvegarde and UK Restructuring Plans require formal creditor approval, ensuring that creditors play a powerful role in the process.

IDWS6 is motivated by a very specific process unlike those in other countries. The reasoning behind the framework is to avoid insolvency through early intervention and in-depth viability analysis.

Internationally, conversely, the ability to turn to external means of creditor protection and the legal reconstituting of debts like Chapter 11 in the U.S., are the primary impetus. The rationale is that it offers a procedure for companies to restructure their financial commitments in a manner supervised by a court and thus legally binding creditor-debtor relationships. French and UK systems also focus on legal solution and formalized agreement with creditors, mirroring a more judicial and debt-oriented incentive (Cohen, 2019).

3. Case Study

3.1. Description of the company

The company is a well-established supplier in the sawn timber production industry, offering individual solutions and pellets. Located in Germany, the company has over 170 years of experience in the sawmill industry. In 2023, it achieved a turnover of approximately 22 million EUR, which includes the commissioning of a new pellet production system. The company has a theoretical production capacity of 152,000 running meters of cut wood and 79,000 tons of pellets annually. The company's core competence lies in highly automated, order-related sawn timber production tailored for small and medium batch sizes.

The company prides itself in high-standard technology, with an estimated service life of 25 years. Its semi-automated production process guarantees complete consumption of all by-products. (There is a 2-shot shift operation), and has maintained that production rate since 2021. It employs 75 people.

The company has a rich history that goes back to 1888 when the founder purchased the "Mühle" site. Over the years, it has seen several key developments, including the construction of the planing mill in the 2000s, the first and second drying chambers in the early 2000s, and the recent commissioning of the pellet system. The company underwent significant internal upgrading and mechanization between 1950 and 1970 and was converted into a limited liability company in 1980.

Figure 1: Timber cuts

(source: MMHolz)

Figure 2: Customized cuts

(source: MMHolz)

Figure 3: Pellets

(source: MMHolz)

The company’s business is divided into three key areas: sawn timber cuts, customized cuts, and pellets. In 2023, the company achieved a total sales revenue of 22.9 million EUR, with timber cuts contributing 15.8 million EUR and pellets accounting for 7.1 million EUR. The company is currently facing challenges, particularly in the timber cuts segment.

The timber cuts business area utilizes solid and automated machinery to produce sawn timber in various dimensions, ranging from 36 cm wide to 14 meters long. The portfolio includes squared timber, planks, and board products essential for various construction and industrial uses. The individual solutions segment specializes in producing customized sizes from batch sizes one and up, catering to different industries with products that are manufactured according to the IPP/ISPM--15 procedure and are CE-certified.

In the pellets business area, the company focuses on utilizing residual materials from wood production. The pellets are produced by drying, crushing, and pressing the materials under high pressure to achieve the highest quality level (DIN A1+), suitable for industrial and private use. The company serves several top customers, including major companies like Hagebau, Presto Biomasse, Mann Energie, Thyssenkrupp, Sacher Holzbauelemente, and others, showcasing the company’s extensive reach and influence in the timber industry.

3.2. Analysis of the internal structure and their performances

The process analysis will focus on the different business units within the sawmill, pellets production, and supporting functions. A brief overview of each function's current state will be given, with the first suggestion on weaknesses. This section will also analyze the current state of different ESG criteria, as this has become a necessary area of an IDWS6.

3.2.1. Sawmill Operational analysis

The operational analysis of the company's softwood sawmill identifies strengths, weaknesses, and areas for improvement across four main processes: purchasing, production, distribution, and logistics.

In purchasing, the company benefits from extensive know-how, particularly in forestry and material assessment, and has good availability of raw materials. However, challenges include a limited supplier radius, strong market dependence, and a core function overly reliant on a single staff member, posing a significant risk.

The company's production operations are centered around two key components: the sawmill and the pellet plant. The sawmill forms the first stage of business operations and cut

approximately 128,000 cubic meters of wood in 2024, with production primarily order-related. The construction industry (50%) and specialty packaging manufacturers (50%) split the output evenly. The sawmill features a robust machinery setup, with only occasional control and system maintenance needs. Additionally, the sawmill benefits from an almost self-sufficient production structure, generating its heat and further using the pellet plant to increase efficiency.

In distribution, the focus is on order-related production, with a high degree of customer loyalty—44% of sales come from the top three customers. However, there is no real price segmentation for customized cuts and a lack of active volume-based pricing, which limits profitability.

In logistics, the company has optimized delivery with a fully utilized truck fleet and is exploring rail connection options. However, internal logistics are not fully automated, particularly between the sawmill and pellet plant, and there is a minimal number of boxing units for internal transport.

Overall, the priority for refurbishment is rated low for purchasing and logistics but medium for distribution and production, reflecting the different levels of urgency and potential impact on operations.

3.2.2. Pellet Operational analysis

Just like in the soft sawmill production, the performance analysis of the company's pellet production highlights strengths and areas for improvement across four main processes: purchasing, distribution, production, and logistics.

The company has good availability of raw materials, with only 41% of these materials being sourced externally in 2023. However, additional purchases will be needed if the company follows through with its plans to expand its pellet production capacity.

The pellet plant, established in 2022 as an extension of the company’s business, is a state-of-the-art facility with an annual production capacity of 65,000 tons, and it is technically prepared for an increase to 89,000 tons. The pellet plant operates with a virtually self-sufficient system, utilizing in-house heat generation to increase efficiency. Approximately 60% of the raw material for the pellet plant comes from the sawmill's upstream operations. The plant is highly automated, requiring minimal staffing for operation, and incorporates unstaffed loading for suppliers. The equipment installed has a service life of over 25 years, sourced from market-leading manufacturers.

In distribution, the company benefits from a high degree of secured purchase quantity through a customer in the trucking sector. However, it is significantly dependent on one customer for 50% of pellet sales, which poses a risk. An exclusive contract for delivery in the trucking industry further limits diversification.

Packaging is primarily automated, with collection exclusively done on-site by customers. Internal logistics to the pellet plant are done via truck, which is not automated, posing inefficiencies.

The priority for refurbishment is rated low for purchasing, distribution, and logistics but medium for production, reflecting the need to address capacity bottlenecks and improve output efficiency.

3.2.3. Supporting Functions

The performance analysis of the company's support processes indicates that they are organized in a lean manner suitable for the company's size.

The company benefits from close commercial management in the finances department with daily updated and detailed Management Information Systems (MIS) focusing on liquidity. However, outsourcing financial accounting, while cost-effective, sometimes restricts business transparency, particularly regarding availability and timing. Additionally, existing control tools in Excel are prone to errors and heavily reliant on individual staff members. The recommendation here is to examine the creation of internal accounting capacities to improve transparency and accuracy.

In the area of IT and digitization, the company has introduced TimberWork, an Enterprise Resource Planning (ERP) system, since the current Managing Director took over. Most processes are digitally integrated and networked, but there is still no existing digital infrastructure for post-calculation, although this is planned. Implementing a new order allocation and post-calculation based on the production cost analysis and the transparency of sales.

The management processes are robust, with a management team having vast industry experience and a hands-on leadership style that allows for a comfortable relationship between management and employees. There is no deep management angle as there is no overhead. The company has several qualified employees in production, but staff is kept to a minimum in the employees area. Training is ad hoc: There is no formal training program. Nevertheless, the streamlined staffing reflect the limited scope of current operations.

The priority regarding restructuring is rated medium for finances due to the need for better transparency and control. At the same time, it is low for IT, management, and employees, reflecting their current adequacy for the company's needs.

3.2.4. ESG Analysis

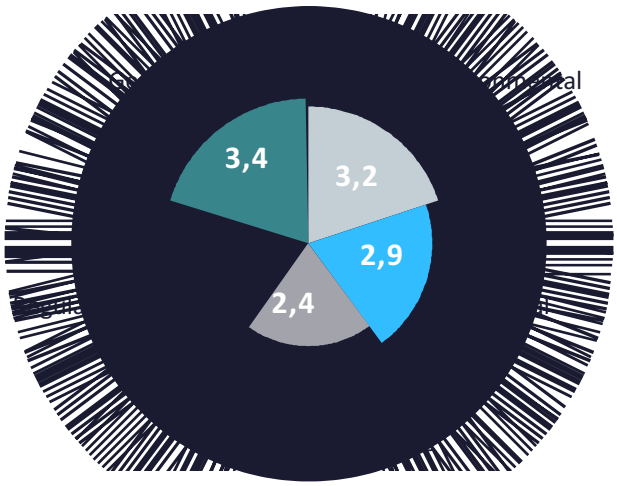
The further assessment is based on an external qualitative survey of the company, which considers the ESG criteria relevant to the industry based on the European Sustainability Reporting Standards (ESRS) categories and the regulatory requirements. This is achieved through qualitative analysis, whereby the company is evaluated based on a set of defined criteria.

The company exhibits robust compliance with ESG standards across a range of sectors. It has clearly defined targets that are subject to regular measurement. It relies on certified partners that are subject to periodic audits and has integrated sustainable awareness into its business model.

In terms of the environment, the company complies with the BimSchG regulations. In addition, Elektrobudowa had implemented its own standards for ecological footprint minimization, such as installing a rainwater collection basin, using biomass heating, and optimizing energy and resource consumption. From the perspective of social responsibility, the company works to increase employee engagement and training opportunities.

Figure 4: Fulfillment of ESG-induced requirements (source: by author)

(Rating from 1 (no consideration) - 4 (fully considered) Empty field = not relevant)



3.3. Analysis of the Market and Competition

3.3.1. Overall market trends with opportunities

To comprehend and fully understand the current market trends, one needs to understand several pivotal market developments that shaped the industry. Firstly, state funding through the Gebäudeenergiegesetz (GEG) provides substantial support, with a maximum subsidy rate of up to 70% for future customers of pellets for new heating systems. This is anticipated to increase demand for pellet heating systems and, therefore, pellets (Federal Statistic Office, 2022). The outlook for the market is influenced by the prevailing trends in interest rates and rising construction costs. n substantially, which may allow the construction industry to recover and ample demand for timber cuts. However, elevated interest rates and high material costs challenge business profitability, presenting a mixed scenario for market participants (KfW, 2023).

The impact of climate change and pest infestations on the market creates challenges and opportunities. The combination of prolonged droughts and a significant infestation of forests by the bark beetle has considerably reduced the forest population, leading to a shortage of wood as a raw material. The resulting shortage of raw materials has led to an increase in prices, which has affected market dynamics. The reduction in the area of German forests illustrates the vulnerability of the supply chain, thereby necessitating adjustments to sourcing and pricing strategies (Bundesministerium für Ernährung und Landwirtschaft, 2023).

The new stringent ESG regulations and CO2 considerations are great opportunities for companies like this one. This enables a sustainable transformation with wood as a renewable raw material. Adherence to ESG standards has now become a prerequisite for long-term competitiveness. As we look towards the future, renewable energy sources are becoming an essential pathways for success in this sector. And, with a growing political and social appetite for sustainable practices, businesses like the company's, which use one-hundred-percent of the logs that they buy, are becoming more relevant. In addition, this integrated approach gives them a strong starting point toward seizing these trends and increasing demand for sustainable products (Deutsches Pelletinstitut DEPI, 2024).

The market and competition analysis of the wood Industry, particularly concerning the softwood sawmill and pellet plant, provides insights into the current market dynamics, competitive landscape, and potential growth opportunities. This section details these aspects and explores how they impact the company's strategic positioning.

3.3.2. The key Markets and their trends

Timber Market

The market for round softwood (spruce), the primary wood needed to make timber cuts, has been heavily influenced by various factors in recent years. These include a significant decline in supply due to infestations and prolonged drought, a sharp increase in demand from China, heightened demand for energy use, and politically motivated reductions in farming areas through forest ownership premiums. From January 2021 to January 2024, the production price for spruce logs increased by appr[illegible]ected that the high price level [illegible]

The timber cuts market has been volatile since 2020, with prices rising from around 180 EUR in 2020 to 515 EUR per cubic meter in mid-2021 before declining and stabilizing at approximately 250 EUR per cubic meter by early 2024 (Federal Statistical Office, 2024).

The current gross profit margins in the sawmill industry are obviously affected and are unusually low and unsustainable, reflecting significant financial pressure on companies in the industry. The development of gross profit margins for timber cuts in EUR per cubic meter over time shows a clear downward trend affecting profitability. This trend highlights a challenging market environment where rising log costs and insufficient revenue from timber cuts have severely compressed margins.

From April 2021, the gross profit margin was at approximately 73%, which is considered a reasonable level within the industry. However, as market conditions changed, margins began to fluctuate significantly (Federal Statistical Office, 2022).

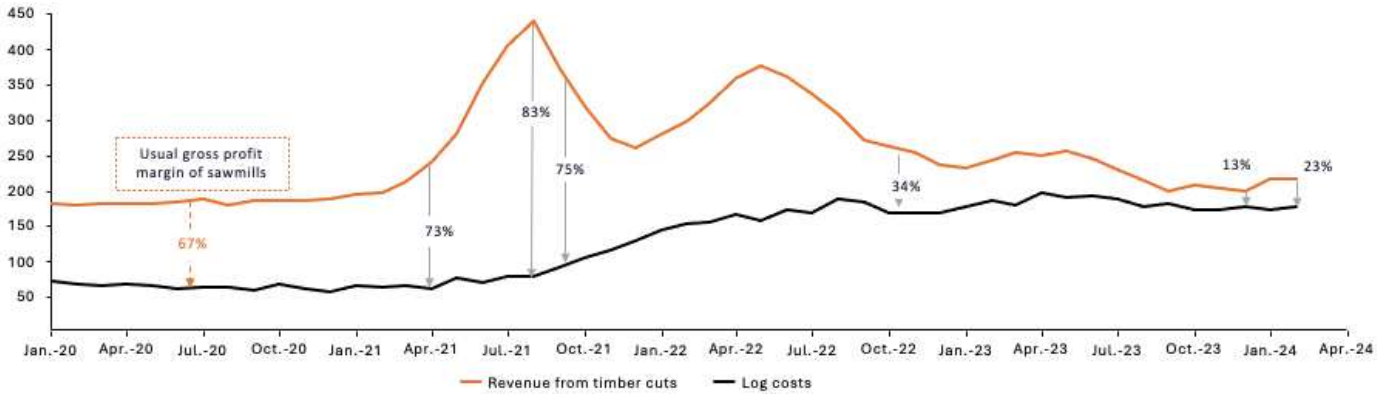
By August 2021, the gross profit margin had risen to 83%, indicating a temporary improvement—this period of economic transition allowed for a strong financial performance driven by favorable market conditions. However, by October 2022, the sawmill industry experienced a marked downturn. The gross profit margin had dropped to 34% following the implementation of a two-shift model in the sawmill, a decision likely aimed at increasing operational efficiency but coinciding with unfavorable market conditions that led to sharply reduced profitability (Federal Statistical Office, 2022).

By December 2023, the situation had deteriorated further, with the gross profit margin reaching a low of 13%, signaling an exceptionally challenging period for the industry. At this level, sawmills, including the company, faced unsustainable financial strain. This low margin reflects the disparity between rising log costs and the revenue generated from timber cuts, leaving little room for profitability (Food and Agricultural Organization of the United Nations).

Fortunately, by February 2024, the gross profit margin had slightly recovered, increasing to 23%. While this is an improvement, it remains far below the usual gross profit margin that sawmills typically require to operate sustainably. The data underscores the ongoing volatility and uncertainty within the market, with companies needing to navigate significant financial pressures as they seek to balance costs and revenue (Ebner, 2024).

Figure 6:Development of Gross profit marginfor timber cuts in EUR/cbm

(source: Holzkurier, 2024, Statista, 2024)

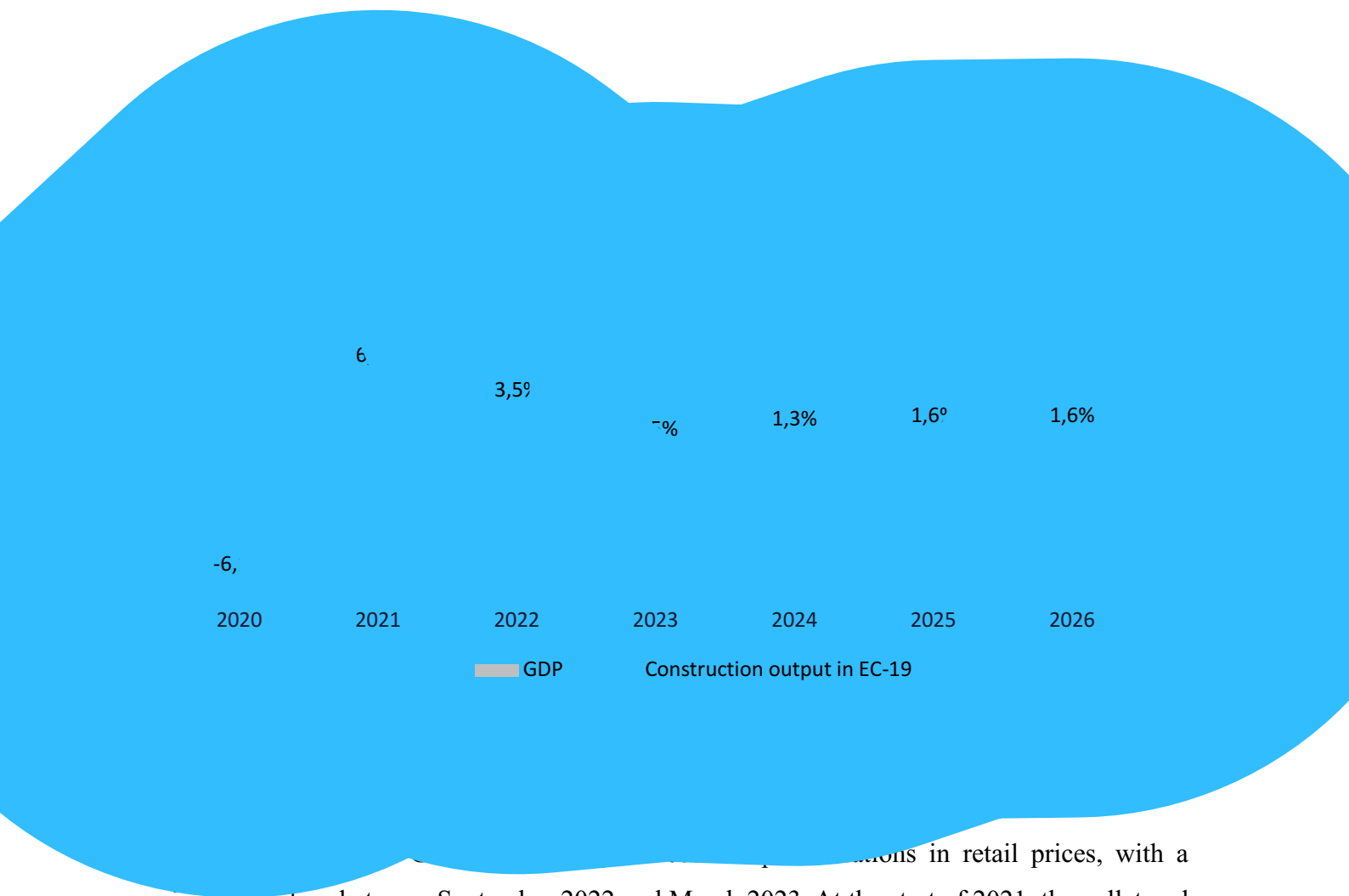


Construction market

The construction timber market in Germany is expected to experience a moderate recovery starting in 2025, with market conditions remaining challenging until then. The industry has recorded steady turnover growth across all three segments (residential, commercial, and public) since 2019. Residential construction saw the highest value, peaking at 61.3 billion EUR in 2022 (Ecoconstruct, 2024). However, the industry faced a significant decline in 2023, mainly due to rising interest rates and inflation, which caused a sharp 16% reduction in residential construction activity. By the end of 2024, the residential construction market is expected to bottom out at around 50.5 billion EUR, with forecasts for 2025 indicating stagnation (Federal Statistical Office, 2024).

Industrial construction, however, saw a moderate recovery in 2023 despite extended lead times, and this segment is expected to hold steady through 2024. Overall, the construction industry is facing headwinds, but these are expected to begin easing in 2025. The forecast growth rate for 2025 and 2026 is 1.5% annually, in line with projected GDP growth.

Looking at the broader Euroconstruct-19 (EC-19) group of countries, which includes Germany, the region saw a significant increase in construction output in 2021, primarily driven by the 6.2% GDP growth rate that year. This growth helped compensate for losses sustained during the COVID-19 pandemic in 2020. However, since then, these countries have faced challenges similar to those faced by Germany, with rising costs and interest rates leading to slower construction activity in real terms. For 2024, construction output for the EC-19 countries is expected to grow modestly by 2.1%, with a more substantial recovery projected for 2025 and beyond (Federal Statistical Office, 2024).



ions in retail prices, with a significant drop between September 2022 and March 2023. At the start of 2021, the pellet end customer price per ton was around 238 EUR, gradually increasing to 303 EUR by the end of the year (Oldenhof, 2024). This rise was partly driven by the state subsidy incentive program for boilers (MAP), which boosted demand for pellets in the market (Deutsches Energie Pellets Verband DEPV, 2024)

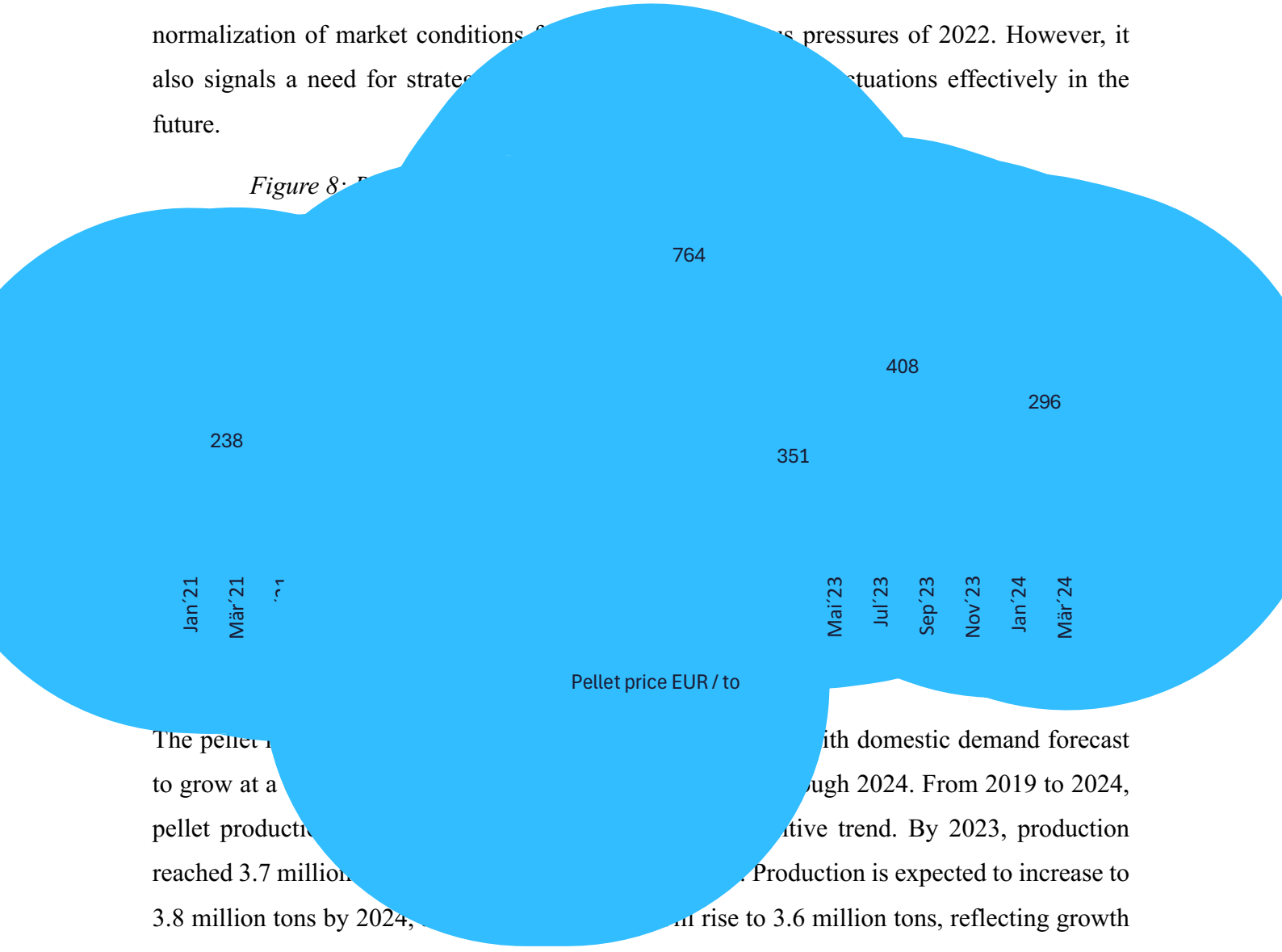
By September 2022, the pellet price surged to a peak of 764 EUR per ton, a substantial increase fueled by both the Russia-Ukraine conflict and higher demand for heating solutions. The geopolitical instability contributed to supply chain disruptions and increased uncertainty, pushing prices to their highest level. Additionally, political discussions about the GEG led to further market uncertainties regarding potential subsidies, affecting consumer decisions (DEPI, 2023).

However, after the peak, the market experienced a sharp decline. By April 2023, the price had dropped to 351 EUR per ton before a brief rebound to 408 EUR in June 2023. Following this rebound, prices continued to fall, reaching 296 EUR per ton by March 2024. This represents a decrease of about 61% from the peak in September 2022 (Federal Statistical Office, 2024).

These price fluctuations underscore the volatility in the pellet market, influenced by external factors such as geopolitical events and government policies. For businesses like the company, this volatility presents both challenges and opportunities. The decline in prices reflects the

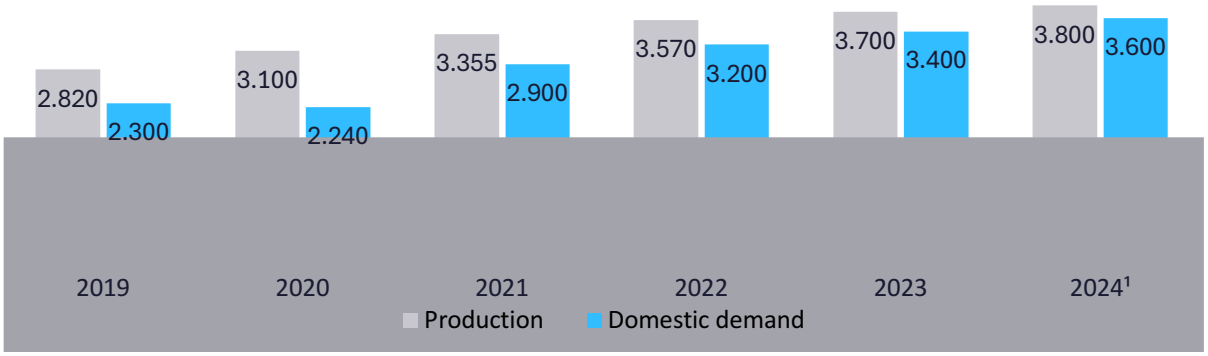
normalization of market conditions [illegible] pressures of 2022. However, it also signals a need for strate[illegible]tuations effectively in the future.

Figure 8: P[illegible]



The pellet [illegible]ith domestic demand forecast to grow at a [illegible]ugh 2024. From 2019 to 2024, pellet productio[illegible]itive trend. By 2023, production reached 3.7 million [illegible]. Production is expected to increase to 3.8 million tons by 2024, [illegible]n rise to 3.6 million tons, reflecting growth rates of 2.7% for production and 5.9% for domestic demand (Statista, 2024).

Figure 9: Development of pellet production in Germany 2019 - 2023 and forecast 2024 in thousand tons (source:Statista)

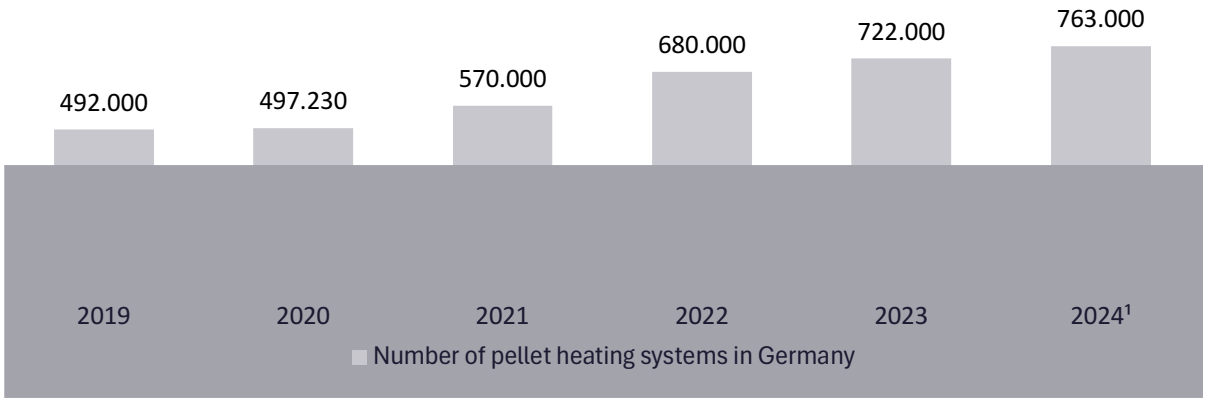


This steady growth is partly attributed to the market incentive program MAP, which has significantly impacted the demand for pellets. The pellet market has also seen notable developments in response to the insolvency of German Pellets, the largest pellet producer in 2014, which underscored the need for a reliable incentive program to boost consumer confidence. As new production plants take roughly two years for approval, coupled with uncertainties from the GEG discussions in 2023, it is anticipated that only a limited number of new market participants, such as the company, will enter the German market in the near future (Strauss, 2024).

The demand for pellet heating systems has also contributed to market growth, with installations of such systems increasing steadily. From 2019 to 2024, the number of installed pellet heating systems is projected to grow at a CAGR of 13.9%. The number of installed systems grew from 492,000 in 2019 to 722,000 in 2023, and it is forecasted to reach 763,000 by 2024, representing a growth rate of 5.7% (Federal Statistical Office, 2024). This increase in installations reflects rising industrial demand and growing awareness of sustainable heating solutions, further driving domestic demand for pellets in Germany.

The positive outlook for both pellet production and heating systems highlights a steady and sustainable growth path for the German pellet market, making it an attractive area for well-positioned businesses like the company.

Figure 10: Number of pellet heating systems in Germany 2019 - 2023 and forecast 2024 (source: DEPV 2024)



The Effect on the Margins

The pellet production market has faced declining gross profit margins due to short-term supply surpluses and fluctuating demand, particularly in Q4 2023 and Q1 2024. This has resulted in a significant drop in prices, making it challenging for businesses like the company to maintain sustainable profit levels in this sector.

In December 2021, the decision to build a pellet plant marked a strategic move toward diversification, driving growth. At this point, the gross profit margin for pellet production increased to 58%, reflecting optimism and strong market potential.

By September 2022, the pellet market reached a peak, with sales prices driving the gross profit margin up to 56%. This spike occurred amid favorable market conditions, with strong demand for pellets and high prices. However, following this peak, the market began to shift.

In May 2023, pellet production started with a gross profit margin of 44%. This decline from the previous high was influenced by a range of market factors, including rising costs and changing demand patterns. The subsequent period, from Q4 2023 to Q1 2024, was characterized by a short-term supply overhang, as mild winter conditions in Germany led to reduced demand for heating. The recessionary environment also dampened industrial demand for process heat, further contributing to the oversupply of pellets. This oversupply, combined with short-term increases in heating prices at the start of the winter season, drove prices down sharply (DEPV, 2024).

By March 2024, the market had reached its lowest point, with the gross profit margin dropping to 29%. This represents the lowest profitability level to date for pellet production, underscoring the financial strain on the industry as it grapples with excess supply and reduced demand.

3.4. Causes and stages of the crisis

An IDWS6 defines six stages of crises, from least severe to most severe: stakeholder crises, strategy crises, product and sales crises, success crises, liquidity crises, and insolvency maturity. To determine the stage of crisis, the company must evaluate the stakeholder, strategy, product and sales, success, and liquidity situation and draw conclusions (Ahlbroy, 2018). This chapter outlines the crisis stages the company is currently facing, explicitly identifying it as being in a "success and liquidity crisis."

The evaluation shows that the company is not experiencing a stakeholder, strategy, or product and sales crisis. Firstly, the shareholder level is characterized by a high level of integrity and commitment. Furthermore, the corporate mission statement is clear and valid despite the market situation, and the management can implement equity and debt capital measures. The management should also take adequate measures to address the crisis. The strategic level can also be identified as stable as the strategic direction is clearly defined and communicated. Despite the current market situation, assessments of the competitive situation and market development are sustainable and valid. The positioning in the market is also comprehensible and realistic. Lastly, both product groups are expected to generate sustained demand and high margins. Next, the product and sales side also does not see significant problems as, in principle, there is no discernible decline in demand. Also, the company sees continued order-related production (timber cuts) and stable sales volumes (solid cubic meters/tons).

*By analyzing the company's success, one can determine significant areas of issue. These problems include an ongoing decline in sales of key products due to price decline—the increasing margin per unit due to price decline in the product groups. As a result, there has been a significant decline in profit and loss. Even though trade payables are currently being settled on time, the company's liquidity situation is not adequate in the long term. Furthermore, liquidity shortfalls are foreseeable in the short term, and there is a risk to the ability to service debt at the end of the quarter.

3.5. Strategic mission statement and derivation of restructuring measures

3.5.1. Mission statement and Strategic target market orientation

The company aims to embark on a holistic strategic transformation to become an integrated wood processor, putting a heavy emphasis on sustainable growth and modernization. The company's vision is to invest in its existing processing operations to establish a modern and integrated processing facility and expand its presence in sustainable energy while continuing its legacy with wood processing. This evolution involves significant enhancements and expansions, both inner and outer, to stay competitive as well as ready for continuity. Ravi Shankar takes you through the four key areas of focus where we are driving operational improvements: technical availability, market position and expansion, commercial excellence and operational excellence.

The company's technical availability is being increased through the absence of maintenance backlogs, the stocking of spare part warehouses, leasing for renewing vehicle fleets, and a general overhaul of systems to meet the regulatory requirements. It has been designed in order to make sure that the enterprise runs effectively, responsibly and in accordance with industry practices.

The company is also expanding and extending its business model by constructing a pellet plant, increasing drying capacities for both sawn timber and pellets and coupling power plants to optimize energy use. Additional measures include extending the drying processes, optimizing the restacking system for dried wood, and implementing a sorting plant for the sawmill. These initiatives are designed to enhance production capacity and efficiency, enabling the company to meet growing market demands while maintaining high product quality standards.

Operational excellence is another key focus area, with efforts directed toward reducing downtimes through improved maintenance setups, integrating planning tools, and enhancing data transparency across operations through enterprise resource planning (ERP). The introduction of a 1.5-shift system is also planned to increase production efficiency. These improvements aim to streamline operations, reduce waste, and improve overall productivity, contributing to better financial performance.

In the commercial realm, the company is working to professionalize its raw material purchasing processes, diversify its customer base, and expand its product offerings. The company also focuses on increasing sales volumes of timber cuts and pellets. Profit margins should be improved by focusing on sales closer to the end customer. This should be done by increasing

the sales volume of further refined timber cuts, developing their external logistics, and cutting out third-party transportation services. These efforts are intended to strengthen the company's market position and enhance its competitive edge.

Overall, the company's strategic mission is to optimize assets, processes, personnel, and EBITDA, ensuring that the company is well-positioned to thrive in a competitive market while contributing to sustainable development. Through these comprehensive measures, the company is set to achieve its vision of becoming a leading integrated wood processor with a significant role in the sustainable energy sector.

3.5.2. Market Positioning and Strategic Polestar

The company should continue to pursue a clearly defined strategic orientation based on contract-based custom manufacturing and individual deliveries. This specific business model allows the company to occupy a market niche in which it has already earned an excellent reputation thanks to its extensive expertise and consistently customer-oriented approach. The conscious decision to avoid processing and loading large volumes allows the company to focus on a less price-sensitive clientele.

Regarding market strategy, the company is advised to expand its target market by increasing the number of processing stages. This measure will secure and increase competitiveness and higher margins. At the same time, its position as an integrated wood processor in the relevant target markets will be consistently strengthened. In addition, offering an "all-in-one" concept, which offers complete and individual customization of services, will make the company a preferred partner for customers who value comprehensive solutions.

In operational implementation, there is potential for consolidating and expanding the market position. By constructing a state-of-the-art pellet plant, the company is expanding its vertical range of manufacturing and reducing its dependence on volatile market prices. The product structure is further processed, and planks should be consolidated and then expanded to strengthen the existing market position. By increasing the depth of added value, the company achieves higher margins and differentiates itself more clearly from the competition.

The strategic measures aim to occupy a niche characterized by a high degree of individuality and quality standards—areas in which the company can fully leverage its already existing core competencies. The company needs to develop comprehensive concepts and investment plans for its medium—to long-term evolution. This roadmap needs to be proactively implemented by management, with a focus on the most necessary measures to secure the current market position.

3.6. Integrated restructuring planning

3.6.1. *Summarizing the financial analysis

It is found in the appendix.

3.6.2. Opportunities and risks in the implementation

The company's strategic planning process carefully considers a balanced distribution of opportunities and risks, reflecting the volatile and uncertain market conditions in which the company operates. One of the primary opportunities identified is related to the current price trends in both product groups, which are marked by significant disruptions. The company has made conservative assumptions in its planning in response to this uncertainty. However, there is potential for price recoveries, particularly in the pellets segment, and for restoring a healthy correlation between the purchase price of logs and the sales price of timber cuts. Such a recovery could provide a substantial upside for the company, enhancing profitability in these key areas.

Furthermore, the positive economic trend observed in industrial production and the construction industry presents another significant opportunity. As demand in these sectors increases, it could drive higher sales volumes and improved margins for the company. The current unstable timber market, while challenging for many participants, also offers an opportunity for those suppliers who are flexible and efficient. In a market where persistent distortions could lead to consolidation and thinning of the competitive field, adaptable businesses like the company could benefit from reduced competition, securing more substantial positions at both ends of the supply chain—from procurement to sales.

On the other hand, these opportunities are counterbalanced by several notable risks. A prolonged or permanent adverse market situation could cause severe distortions in the European sawmill market, significantly affecting the company. At the current price levels, the business models of many local market participants, including the company, are not sustainable. This poses a risk of financial instability and potential market exits, which could impact the company's operations and profitability.

Additionally, the procurement side presents its own risks, particularly concerning the supply of raw timber. Continued adverse developments in this market could result in higher procurement prices and longer procurement routes, increasing operational costs and complicating the company’s supply chain management. Ensuring an adequate supply of round timber is crucial for maintaining production levels and profitability, and any disruptions in this supply could have significant negative consequences.

The company has conducted sensitivity analyses and alternative calculations to estimate these opportunities and risks' financial and temporal effects on its net assets, financial position, and operational results. However, these potential impacts were not included in the restructuring plan, as their occurrence was not considered predominantly probable at the time of planning. This approach underscores the company's cautious yet strategic management, ensuring it is prepared to navigate the challenges and capitalize on the opportunities in its dynamic operating environment.

3.7. Judgment on the ability to restructure

3.7.1. Concluding summary

The company operates efficiently with modern and competitive facilities, and its newly built pellet plant represents the latest technological advancements. Despite its solid operational foundation, the company, like much of the industry, has been impacted by an exogenously induced crisis characterized by a sharp decline in prices and margins. Additionally, the construction of the pellet plant, which commenced operations in the summer of 2023, incurred approximately 7 million EUR in unforeseen costs due to extra requirements imposed by authorities and insurance companies.

The company operates in a highly competitive, price-dependent timber market, with a strong presence due to its long-term market relationships. However, the fragmented timber industry, with several large sawmills and similar-sized competitors, makes the business environment challenging. The company's heavy reliance on price stability and timber quality has exposed it to market risks, especially with the current price fluctuations threatening the profitability of the sawmill industry: rising energy costs, interest rate hikes, and broader economic challenges further pressure the company. The company must adapt to remain competitive, especially with increasing ESG relevance and expanding state subsidy programs to reduce CO2 emissions. The standard EBIT margin in the German timber market is approximately 10%, with competitors able to process around 145,000 cubic meters of timber, indicating the scale and efficiency needed to thrive in the current market conditions.

The company's strategic mission focuses on stabilizing its liquidity in the short term while expanding and restructuring its business operations in the medium to long term. The medium-term goal is to expand process structures and evolve into a modern, integrated wood processor with a strong presence in the sustainable energy sector, thereby consolidating its position in

niche markets. The long-term vision includes developing additional business areas and integrating the company into a broader network.

Since June 2023, management has taken comprehensive operational and financial measures to address the liquidity crisis.

*In response to this challenging situation, management has taken extensive operational and financial measures since June 2023 to preserve the company's liquidity. These measures include implementing cost and inventory reductions, introducing factoring, and securing additional working capital and guarantee lines. The company also acquired new equity from co-shareholders and negotiated subordinated and shareholder loans. Payment plans were established with suppliers and the tax office to stabilize the situation further. Collectively, these efforts have provided the company with cash and cash equivalents totaling around 12 million EUR in 2023, ensuring financial stability amidst the ongoing crisis.

3.7.2. Assessment of the ability to restructure

The summarized assessment outlines that the restructuring concept for the company is feasible and has been based on a comprehensive analysis of the company's situation, its financial position, and the results of operations. The consultancy prepared the restructuring plan, which was commissioned to ensure that the proposed legal and financial measures were appropriate and effective for the company. The plan provides a favorable forecast and demonstrates that the company can be restructured within a reasonable timeframe. The consultancy was provided with all necessary accounting documents, and the company's legal representatives confirmed the completeness and accuracy of the information used for the restructuring draft.

Additionally, the restructuring draft has been designed to address the identified causes of the company's crisis and provides a clear roadmap for restoring profitability. Many of the restructuring measures have already been implemented significantly, which provides further confidence in the plan's feasibility. The management has confirmed its commitment to executing the measures necessary for a successful turnaround.

Based on the consultancies assessment and the plausibility of the assumptions within the plan, it has been concluded that the company can indeed be successfully restructured objectively.

4. Teaching Note

4.1. Synopsis

The company is a wood processing business that has been operational since 1898 and employs 87 people. It specializes in sawn timber products and pellets, with its operations divided into three main segments: log blanks, individual solutions, and pellets. The log-cutting and individual solutions segments account for the largest share of the company's sales. Since 2021, GmbH has served as the main shareholder.

Despite its long history and strong market position, the company, like much of the wood processing industry, has been facing an earnings crisis caused by an externally driven price decline and narrowing profit margins. Adding to these financial pressures, constructing a new pellet plant, which became operational in the summer of 2023, exceeded its initial budget by approximately 7 million EUR due to additional requirements from authorities and insurance providers. These challenges have significantly impacted the company's financial stability and overall performance.

4.2. Objectives

The IDW S6, developed by the Institute of Public Auditors in Germany, provides a comprehensive framework for assessing the viability of restructuring concepts. Incorporating this structured approach into a case study allows students to explore real-world scenarios involving companies in crisis, understand the legal and strategic requirements for successful restructuring, and develop effective turnaround strategies. Students gain practical insights that bridge theoretical knowledge with industry application by engaging with strategic analysis, problem identification, and operational improvements within the IDW S6 framework. A key responsibility of the auditor preparing an IDW S6 is to analyze the available data accurately and draw sound conclusions and recommendations, which is precisely the goal of this exercise.

As corporate restructuring becomes increasingly prevalent, university students who study and understand this concept are better prepared to tackle the challenges of their future careers and drive meaningful change in business transformation. This expertise enhances their employability and equips them to contribute effectively to the global economy, particularly during periods of uncertainty.

4.3. Approach

This case study is designed for Business Management, Administration, and Economics postgraduate students. It is particularly suited for crisis management, industry analysis, strategy, and transformation courses. The case study illustrates how an auditor analyzes information and data, develops a target model, and formulates strategic recommendations within the framework of an IDWS6.

However, specific steps of the strategic analysis of the IDWS6 have been deliberately omitted to encourage students to develop their skills. By working through this case study, students gain valuable insights into the structure and content of an IDW S6. To complete the study, they are required to fill in several key sections by answering questions.

Students are not expected to arrive at identical answers, as the insights presented stem from extensive interviews and in-depth research. Instead, they are expected to demonstrate their understanding of business analysis, apply creative thinking, and effectively interpret the information provided.

4.4. Assignment questions

Please describe the advantages of providing a framework such as an IDWS6 and why its adoption can benefit other countries.

1. Standardization and Consistency: The purpose of IDWS6 as a method of examination and restructuring is to be the standard of financial advisory and management of early financial distress, with the assurance of a consistent process in the review and restructuring of the company. This is important because such a dedicated effort increases the trust of the person who creditors, investors, and employees are financially helping. This creates a benchmark for the efficient use of resources and the validation of the turnaround actions
2. Proactive and preventative approach: In contrast to insolvency proceedings, which, according to statutory provisions, are the last resort, the IDWS6 uses the major benefits of early intervention. The prompt adoption of feasible solutions are in place before the company reaches the stage of insolvency. The preventive framework helps companies to confront problems in time, and consequently they stand a chance to avoid more severe conditions such as liquidation or bankruptcy.
3. Affordable and Accessible: The IDWS6's non binding nature, ensures that costly legal battles, usually associated with other forms of statutory insolvency is avoided. Such cost

savings makes it available to small and mid-sized businesses that don’t have ample time to focus on long indepth legal issues. It changes focus from administrative or legal costs and redirects the companies' human and financial resources towards recovery.

4. Focus on long-term viability: The IDWS6 differs from simple debt restructuring by identifying the causes of financial problems. It aligns strategic, operational, and financial factors within the organisation to support continuous sustainable business recovery. It enables companies to focus on long-term efforts aimed at rebuilding their ability to adapt to a market and be competitive again.
5. Flexibility and adaptability: As the framework's is non-binding it can meet the particular needs and requirements of numerous companies and industries. For this reason, the proposed framework can be applied effectively in organizations, as companies can modify it according to the specific needs they encounter.

Please complete a SWOT Analysis.

The SWOT analysis highlights that although the company is not profitable due to the existing price structure, it has significant earnings potential attributed to its strategic positioning and lean organization. The company's strengths include a favorable macroeconomic situation concerning its supplier structure, a continuous and secure supply of raw materials that ensures stable sales volumes, and strong management with extensive experience. The company also demonstrates a clear awareness of its niche market requirements and exhibits a high material utilization rate of around 61%, with comprehensive recycling of residual products. Furthermore, the management is proactive regarding market dynamics and price fluctuations.

On the downside, the company faces several weaknesses. The company's main weakness lies in its dependencies on the market price and the margin issues. It lacks direct market access to end customers B2C business, which limits its market reach. The dependency on third parties, such as transportation services, further strains their margins. Further, the company struggles with scalability due to its strategic focus on one-off and mass production. This strategic split leaves the company vulnerable to fluctuating prices without the cushion of the economies of scale while also not taking full advantage of the niche market, which is not as price-sensitive.

The company's opportunities are substantial. It can tap into high, competitive earnings potential in the wake of rising prices. By consolidating its niche position and expanding its finishing capacities, the company can increase its margins without needing to make significant investments in new production expertise. Long-term connections to the rail network could

enhance its sourcing radius and secure raw material supply. Additionally, the company can capitalize on efficiency advantages compared to competitors at an attractive price level.

However, several risks must be managed. The company's strong dependence on the market for price and quality could jeopardize margins if these factors do not recover, leading to unsustainable operations. Liquidity bottlenecks could delay essential investments, such as repairing machinery or expand unused earnings potential. This strategic analysis u weaknesses and risks while levera

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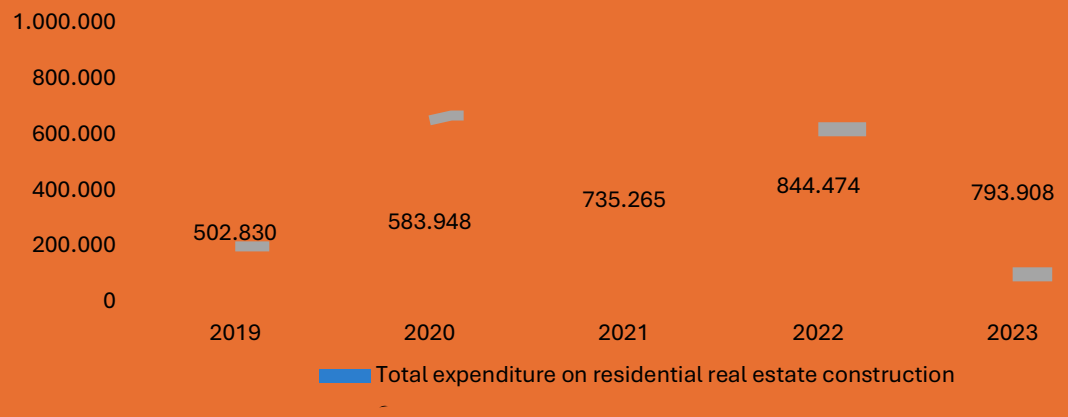

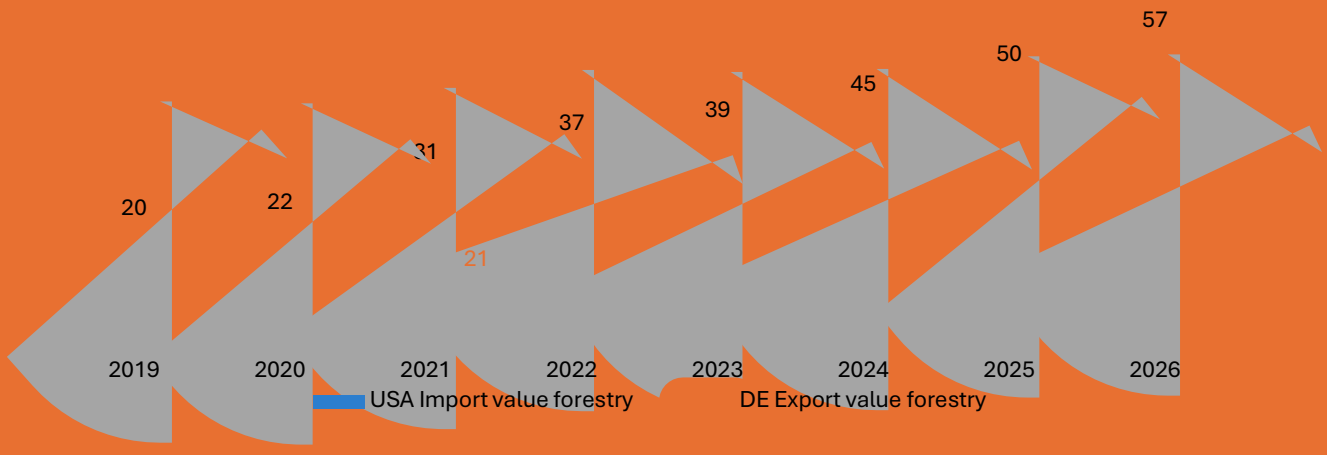

The U.S. construction industry presents significant opportunities for the company and the German forestry sector. As many large German sawmills focus on the U.S. market, demand saturation abroad leads to reduced capacity in Germany, driving up domestic prices (Food and Agricultural Organization of the United Nations, 2023). This trend benefits businesses like the company, which can take advantage of higher prices in the German market as the supply tightens locally.

The U.S. construction industry has seen substantial growth in recent years. From 2019 to 2022, total expenditure on private residential real estate in the U.S. grew from 502 billion EUR to 845 billion EUR, with a compound annual growth rate (CAGR) of 19%. However, in 2023, this figure dropped to 794 billion EUR, a decline of 6%. Despite this setback, one can look at the trends in positive export and import numbers and see considerable opportunities in this market. By 2026, the import value of forestry products in the U.S. is expected to grow from 39 billion EUR in 2023 to 57 billion EUR, a CAGR of 13.5%. At the same time, the export value of German forestry products to the U.S. is projected to increase from 24 billion EUR in 2023 to 27 billion EUR by 2026, with a growth rate of 4% (Ebner, 2024).

Germany's position as a supplier of softwood lumber to the U.S. means that German exports will benefit from this rising demand. For the company, these market trends present valuable opportunities. The combination of rising U.S. demand for forestry products and higher domestic prices due to reduced capacity in Germany creates favorable conditions for growth. By aligning its production to meet these demands, the company can strengthen its domestic and international market position, capitalizing on the economic recovery of the U.S. construction industry.

The company should consider expanding its production capacity to focus more on exporting to the U.S., where demand for forestry products, including softwood lumber, is expected to grow at a CAGR of 13.5% through 2026 (Taylor, 2024). By aligning more of its production capabilities toward the U.S. market, the company can take advantage of rising import needs, increasing the volume of exports and potentially securing long-term contracts with US-based construction companies or distributors. This expansion would enable the company to capture a larger share of the export market while also benefiting from the higher margins that the U.S. market can offer due to its rapid growth and rising demand for sustainable building materials.

While focusing on exports to the U.S., the company can simultaneously capitalize on the reduced supply and increased prices in the German market (Ekstorm, 2021), 2. By carefully managing its supply allocation, the company can optimize profitability by adjusting the proportion of its production earmarked for domestic versus export markets. As large German

sawmills divert more production to the U.S., the resulting scarcity in the local market offers an opportunity to increase prices domestically. The company should adopt a dynamic pricing strategy that maximizes profits by selling to both markets at favorable price points, balancing supply to match the evolving demand and price fluctuations in Germany and the U.S.

By implementing these strategies, the company can strengthen its market position and ensure it captures growth opportunities in the expanding U.S. market and the increasingly constrained German market.

Based on the information in the chapter "Key Markets and Their Trends," which market/product should the company move towards? Furthermore, what recommendations should be given to take advantage of the trends?

The German pellet market is experiencing steady growth, driven by increasing domestic demand, favorable government incentives, and rising installations of pellet heating systems. For a business like the company, this presents several strategic opportunities. First, the anticipated growth in pellet demand, coupled with a positive trend in production, suggests that investing in expanding production capacity is a key priority. Given that new plants take approximately two years for approval, early investment in expanding or upgrading current facilities will position the company to meet increasing demand, especially as domestic consumption continues to rise. Additionally, the introduction of MAP in 2020 has significantly boosted the demand for pellets. The company can capitalize on this by forming partnerships with pellet boiler manufacturers, positioning itself as a key supplier, and offering bundled packages that combine heating system installations with pellet supply.

Given the uncertainties surrounding the GEG, The company should stay proactive in adapting to regulatory shifts by ensuring its operations comply with new environmental standards and energy efficiency mandates. Securing sustainability certifications can further differentiate the company in a market where green energy is becoming increasingly important.

The German pellet market has experienced significant volatility in retail prices, with sharp fluctuations between 2022 and 2024. For companies like the company, this presents both challenges and opportunities. This price volatility highlights the need for strategic flexibility. On the one hand, the sharp price decline suggests that the extraordinary market pressures of 2022 have subsided, and market conditions are stabilizing. On the other hand, these fluctuations signal the importance of being prepared for future external disruptions, such as geopolitical events or government policy shifts. To manage this, the company could consider diversifying

its customer base to include both long-term and short-term contracts, which would help mitigate the impact of sudden price changes. Also, maintaining strong relationships with suppliers and leveraging market intelligence to anticipate price shifts could give the company a competitive edge in navigating future fluctuations.

Based on the information in the operational analysis for both the Sawmill and pallet operations, please provide options for recommendations to improve their internal processes, similar to the ones given in the analysis of the supporting functions.

Sawmill operation

Based on the company's pellet production performance analysis, several strategic recommendations can be made to enhance operational efficiency, mitigate risks, and prepare for future growth. First, while the company has good raw material availability in purchasing, the potential expansion of capacity by extending the drying line will require securing additional external raw material sources. Therefore, it is recommended that the company expand its supplier network to ensure a steady and cost-effective supply of raw materials, thereby reducing the risk of shortages or price volatility.

In distribution, the heavy reliance on a single customer for 50% of pellet sales presents a significant risk. To reduce this dependency, the company should gradually explore diversifying its customer base, even if diversification may not seem immediately attractive. Establishing relationships with additional clients in different sectors or geographies could provide long-term security against demand fluctuations from any one customer. Additionally, considering alternative distribution strategies to reduce reliance on the exclusive contract for silo vehicle deliveries could be beneficial.

While the plant is mostly automated and efficient in logistics, internal logistics between the sawmill and pellet plant present an opportunity for improvement. The company should consider investing in an automated conveying system for chip material, reducing reliance on manual trucking and improving material flow between the facilities. Though this is a high-cost investment, it would lead to long-term labor and operational efficiency savings.

Lastly, in production, the company should prioritize addressing capacity bottlenecks. Optimizing the production process is crucial, as the pellet plant must be prepared to increase its capacity from 55,000 to 85,000 tons. This includes ensuring that the drying line and other key production systems can handle the increased output without delays or inefficiencies. Implementing predictive maintenance and process optimization strategies could enhance the

plant's output while maintaining high-quality standards. These steps will allow the company to continue operating efficiently and capitalize on market opportunities as demand for pellets grows.

Pellets Operation

While the company has good availability of raw materials, the limited supplier radius and over-reliance on a single individual for purchasing decisions pose significant risks. The company should diversify its supplier base by expanding its geographic reach and developing relationships with additional suppliers. This would reduce the company's exposure to supply disruptions and ensure more competitive pricing. Furthermore, the company should implement cross-training within the purchasing department to ensure that purchasing decisions are not dependent on a single person, thus increasing resilience.

In distribution, the company's focus on large quantity orders from a few customers can limit profitability due to the absence of volume-based pricing and post-calculation of quotations. Introducing a post-calculation system will allow for more accurate tracking of profitability per order while implementing volume-based pricing, which can incentivize larger purchases and ensure that all orders maintain healthy margins. Developing a segmentation strategy for refined products will also allow the company to increase the share of non-discounted direct business, improving overall profitability.

The sawmill is highly specialized, creating customized truckloads for different clients, which is a strength. However, the company's production is primarily order-related, which can limit flexibility in responding to changes in demand. By investing in more adaptive production technologies or improving the integration of forecasting tools, the company can enhance its ability to handle fluctuations in market demand more efficiently. Further investments in production capacity, particularly in the drying plants, would also allow the company to increase output and capture more market share.

5. Conclusion

5.1. Limitations

Setting up a case study as an IDWS6 can be highly insightful, as it demonstrates the type of projects a restructuring consultancy frequently undertakes. Due to the sensitive contents, data and names have been altered and omitted to avoid these being traced back to the company. Furthermore, by its very nature, this IDWS6 required adjustments, which must be

communicated and considered. As noted earlier, several components of the original draft have been omitted, particularly those related to financial analysis, liquidity planning, and debt restructuring. Including every aspect would be impractical due to the scope and size of the case study. Moreover, the omitted sections are not essential for the student audience for whom this case study is designed. The fact that this IDWS6 does not represent the complete draft does not diminish its relevance or usefulness. For future case studies, expanding the size and scope of the study, as well as presenting an IDWS6 further in the past to avoid confidentiality issues, should be considered.

Lastly, an IDWS6 is presented to the company's management and creditors, who usually have an in-depth understanding of the industry. Even though explanations have been added, it is recommended that they have a basic knowledge of the industry.

5.2. Final Remarks

The goal of this thesis can be divided into three parts, which are reflected in the structure of this paper. The first aim is to explain the concept and necessity of the IDWS6. The second is to demonstrate the in-depth analysis and skill set required for a strategy consultant to perform their tasks effectively. Lastly, the thesis aims to assist students in developing these essential skills.

The IDWS6 is a crucial tool used to safeguard companies from bankruptcy and restore creditors' confidence. It enables companies to be assessed objectively and provides a structured model for regaining long-term viability. The impartiality of the auditor ensures fairness and credibility when evaluating a company's prospects for survival. This impartiality helps creditors trust the evaluation and offer the necessary financial support.

The case study presented in this paper illustrates how the IDWS6 framework functions in practice. The IDWS6 enabled early identification of both success and liquidity crises, providing sufficient time to address these issues before insolvency occurred. An analysis of the company revealed that only minor adjustments on the operational and strategic levels were needed to secure its position. Market analysis highlighted opportunities within a niche market, helping to mitigate prevailing risks in the broader industry. Additionally, an internal analysis confirmed that the company possessed the necessary capabilities to excel in this niche market, with potential for further expansion. Based on these observations, measures were developed to address strategic and market positioning issues and operational inefficiencies. The finalized document was presented to the company and its creditors, resulting in an agreement to provide new loans as suggested by the consultancy.

6. Appendix

Summary of the Financial Analysis*

The company has outlined a positive restructuring plan, supported by several key financial measures to ensure the company remains solvent and competitive in the coming years. Currently, the company is still solvent, with sufficient cash and cash equivalents to meet its liabilities up to March 2024, and there is no indication of insolvency as per Section 17 InsO. However, the company anticipates a liquidity shortfall of approximately 3.1 million EUR by mid-2025, but this is expected to be addressed through a financing solution involving contributions from financing banks and shareholders. These newly secured credit lines and shareholder loans, granted in 2023, will support the company’s liquidity needs until the end of 2026.

Although the company is projected to incur losses through 2024, which will erode much of its balance sheet equity, it will still maintain positive economic equity of approximately 1.9 million EUR by the end of that year. Additionally, around 7.4 million EUR shareholder loans will bolster the company's financial stability. The optimistic going concern forecast is supported by the implementation of a restructuring agreement with financing companies and shareholders, ensuring that the company can remain solvent through 2026. These financial arrangements further reinforce The avoidance of over-indebtedness, which will stabilize the company in the medium term.

Finally, the company's going concern forecast is deemed viable based on the assumption that the planned restructuring will yield the expected results. The company is positioned to generate sustainable profitability from its regular operations, with expected returns of approximately 8.1% on total sales. By the end of the review period, the company is expected to achieve positive economic equity of around 6.6 million EUR, which reflects its ability to remain competitive and financially healthy as it moves beyond the restructuring phase. This restructuring plan and firm shareholder and financial support will ensure that the company can continue operating and growing within its market.

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