INTERNSHIP REPORT AT ALTANA AG

by

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from Bamenda

Internship Submitted in Partial Fulfillment of the

Requirements for the Degree of

Industrial Engineering

in the

Faculty of Technology and Bionics



24.02.2024, Kleve, Germany

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**Content**

Contents

[1 Introduction 1](#_Toc189171522)

[1.1 Introduction of the Company 1](#_Toc189171523)

[1.2 Description of the Divisions and their Products 3](#_Toc189171524)

[1.3 Structure of the Thesis/Report 4](#_Toc189171525)

[2 Project Overview and Initial problem 6](#_Toc189171526)

[2.1 Project Objectives 7](#_Toc189171527)

[2.2 Foundational Tools and Technologies 7](#_Toc189171528)

[3 Methodology 9](#_Toc189171529)

[3.1 Confluence 9](#_Toc189171530)

[3.2 Power Automate 10](#_Toc189171531)

[3.3 Power Bi 11](#_Toc189171532)

[3.4 Microsoft Excel 12](#_Toc189171533)

[3.5 Microsoft Lists 12](#_Toc189171534)

[4 Results 14](#_Toc189171535)

[4.1 Power Automate 14](#_Toc189171536)

[4.2 MS Lists 17](#_Toc189171537)

[4.3 Power BI 17](#_Toc189171538)

[4.4 Confluence 18](#_Toc189171539)

[4.5 Documentation and Training Materials 19](#_Toc189171540)

[4.6 Comparison with Initial Expectations 19](#_Toc189171541)

[5 Discussion 21](#_Toc189171542)

[5.1 Challenges and Problem Analysis 22](#_Toc189171543)

[6 Conclusion 24](#_Toc189171544)

[6.1 Future Recommendations 24](#_Toc189171545)

[7 Summary and Outlook 25](#_Toc189171546)

List of Figures

[*Figure 1-ALTANA Group and its four divisions* 2](#_Toc189171547)

[*Figure 2- Geographical overview of ALTANA's Group* 2](#_Toc189171548)

[*Figure 3-Automated Email with Powerbi dashboard* 11](#_Toc189171549)

[*Figure 4-Automated Reminder of Audit requests with due dateline* 15](#_Toc189171550)

[*Figure 5- Automatic upload of email attachment in sharepoint* 16](#_Toc189171551)

[*Figure 6-Powerbi Dashboard showing open Audit requests* 18](#_Toc189171552)

[*Figure 7- Overview of Cofluence dashboard showing the different sectors* 19](#_Toc189171553)

[*Figure 8:* *Workflow Comparison – Before and After Automation* 20](#_Toc189171554)

# Introduction

An internship is an integral part of the degree program that provides students with practical insights into the professional world and important experience for their future career plans. A twenty-week mandatory internship is required as part of the bachelor´s program in Industrial Engineering at the Rhine-Waal University of Kleve. In the summer semester of 2024, I already completed courses that are interesting for my internship such as accounting, Production and Logistics, International Business and law, Project Management, and Global Economics. Based on this, I decided to do an internship at the ALTANA AG in the division Taunus Treuhandgesellschafte mbH (internal tax department of ALTANA). As an industrial engineering student, I completed an internship at a company where my primary role was to enhance the efficiency of their work processes through digitalization. My tasks involved using Microsoft tools such as Power BI, Power Automate, Microsoft Lists, Excel, Confluence, Workflows, and SharePoint to transition the firm's existing document management system to a more integrated and automated SharePoint-based system.

This report details Taunus Treuhangesellschaft (TTG) 's initial problem, the methodology used to address it, and the steps taken to implement a digital solution. It also discusses how the skills and knowledge gained from my industrial engineering studies were applied during this internship.

## Introduction of the Company

ALTANA Group is headed by ALTANA AG with its headquarters in Wesel, Germany located in 26 countries with 8000 employees. The following overview summarizes the key information concerning ALTANA Group and its four divisions:

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*Figure 1-ALTANA Group and its four divisions*



*Figure 2- Geographical overview of ALTANA's Group*

The roots of ALTANA AG go back to the year 1873, when Dr. Heinrich Byk began producing chemicals. In 1941, Dr. Günther Quandt acquired the majority of shares in the subsequent BYK-Chemie. In 1977, the company became part of the newly formed ALTANA AG. ALTANA Group as known from 1977 grew over the decades by organic growth but especially by acquisitions of several group companies, which became part of the divisions. Since January 2007, after the divestment of the pharmaceutical activities, ALTANA has focused on its specialty chemicals business (Corporate Report 2021 – ALTANA AG). Today the ALTANA Group is organized into four divisions:

▪ BYK Additives & Instruments,

▪ ECKART Effect Pigments,

▪ ELANTAS Electrical Insulation

▪ ACTEGA Coatings & Sealants

and is globally represented in the area of specialty chemicals with around 48 production sites. ALTANA is a global specialty chemicals company with employees and sites all over the world. Working under the ALTANA umbrella are four business divisions that offer their customers worldwide high-quality products and solutions. Each division acts under its name. At the same time, ALTANA strives to maximize the benefits of collective knowledge and skills. The company’s sites are generally run by local management and typically have a fully-fledged business organization. This ensures cultural integration, market proximity, and fast decision-making processes. ALTANA’s shareholder structure facilitates long-term corporate success and provides commitment as well as continuity for its employees and customers. At the same time, it enables ALTANA to act quickly to take advantage of business opportunities.

## Description of the Divisions and their Products

1. *BYK Additives & Instruments*

The BYK Additives & Instruments division is one of the leading international suppliers of special-purpose ingredients, so-called additives, used in coatings and paints, plastics, gas and oil exploration, and other industrial applications. The division’s products, most of which are used in only very small amounts, have a decisive influence on the properties of their customers’ end products or enable customers to improve their manufacturing and industrial processes. The division also manufactures measuring and testing instruments that are used to determine surface properties, color shades, and optical effects. BYK-Chemie GmbH, based in Wesel, Germany, is the management company of the division. In addition, it is the division’s biggest production and development site for additives and the ALTANA group company with the highest sales.

1. *ECKART Effective Pigments*

ALTANA concentrates the development, production, and sale of effect pigments in the ECKART Effect Pigments division. Customers use these products to achieve visual and functional effects, primarily in coatings, plastics, printing inks, cosmetics, and construction materials. The principal raw materials are aluminum, copper, and zinc. Aside from metallic effect pigments, other pigments are offered based on artificial substrates. Effect printing inks and services supplement the division’s portfolio. Aluminum-based effect pigments comprise the largest part of ECKART’s business. Customers use them particularly to achieve silver metallic effects, for example, for car paints or graphic arts products.

1. *ELANTAS Electrical Insulation*

The companies in the ELANTAS Electrical Insulation division offer their customers a high level of expertise in the field of electrical insulation materials. As one of the world’s leading suppliers of such products, the division’s portfolio concentrates on coatings for insulating magnet wires as well as special resins and coatings for impregnating and protecting electrical and electronic components. ELANTAS has its holding structure under the management of ELANTAS GmbH, based in Wesel, Germany. The latter controls the division’s activities and supports its operating subsidiaries, which develop and produce insulating materials in Germany, Italy, China, India, the U.S., Brazil, and Malaysia.

1. *ACTEGA Coatings and Sealants*

The ACTEGA Coatings & Sealants division’s portfolio is tailored to the needs of the packaging and graphic arts industries. It produces specialty coatings, printing inks, adhesives, and sealants used by customers to achieve functional and visual effects. ACTEGA is managed by the holding company ACTEGA GmbH, based in Wesel, Germany. Subsidiaries in Germany, France, Spain, China, the U.S., Brazil, Canada, and Chile manufacture and sell the division’s products. Its research and development activities are also decentralized, and oriented to the competencies of the individual companies in the relevant application area.

## Structure of the Thesis/Report

1. ***Project Objectives:***

Outline the digitalization project’s primary objectives, including streamlining document management, enhancing workflow efficiency, and centralizing data accessibility for better departmental performance.

1. ***Foundational Tools and Technologies:***

An introduction to the Microsoft 365 tools (Power Automate, Power BI, SharePoint, MS Lists, Confluence) used in the project and how they align with the objectives.

# Project Overview and Initial Problem

Industrial engineering is primarily concerned with optimizing complex processes and systems, ensuring efficiency, and minimizing waste. My internship tasks align with industrial engineering principles, as I applied process improvement techniques, workflow automation, data management, and systems integration. During my internship, I was assigned various tasks and had to do some research to participate considerably and to be able to learn from the journey. The primary goal of the project was to enhance the efficiency, security, and effectiveness of the firm’s workflow by:

1. **Streamlining Document Management:** Transitioningfrom Microsoft Excel to Sharepoint
2. **Improving Task Tracking:** Using Power BI and Power Automate to monitor task progress and automate routine processes.
3. **Enhancing Data Security:** Implementing access controls and restrictions using Confluence to manage important data.
4. **Reducing Manual Work:** Automating reminders and workflows using Power Automate to save time and reduce human error.

The project focused on digitalizing the firm’s core administrative processes, including document management, task tracking, and communication. The tools chosen were fully integrated to create a seamless workflow that improved overall efficiency.

This previous setup had several drawbacks:

* **Repeated File Storage:** Files were saved repeatedly in different locations, leading to confusion and inefficient access.
* **Disorganized Data Structure:** The lack of a well-organized file structure made it difficult for employees to retrieve documents quickly.
* **Manual Processes:** Critical processes like task tracking, document management, and communication were largely manual, resulting in delays and potential human errors.
* **Security Concerns:** There was limited control over who could access sensitive files, raising concerns about data security issues and compliance.

## Project Objectives

The primary objective of the digitalization project was to enhance the efficiency and effectiveness of the law firm's core processes by implementing automation and modernizing document management systems. This goal aimed to address the specific needs of the firm by reducing administrative workflows, reducing the manual workload, and increasing accuracy in information handling. By leveraging Microsoft 365 tools such as Power Automate, Power BI, and SharePoint, the project aimed to create an automated and integrated environment where repetitive tasks could be simplified, allowing employees to focus more on critical, value-adding tasks.

In addition to document management, the project aimed to enhance workflow efficiency and transparency through task tracking and reporting. To achieve this, I created a Power BI dashboard that visually displayed key metrics such as pending contracts, responsible personnel, and approaching deadlines. This dashboard provided team members with an at-a-glance overview of ongoing tasks, helping them prioritize effectively and stay updated on project statuses. Automated reminders were also set up in Power Automate to ensure that team members received timely notifications for approaching deadlines, helping reduce delays and increasing accountability.

Lastly, a core objective was to improve data accessibility and centralization. By consolidating information in Confluence and creating organized, linked pages, the project sought to provide a single source of truth for all project-related data. This approach was designed to improve navigation between documents and resources, allowing team members to access relevant files and links from one central hub. This centralization aimed to minimize the risk of data silos, enhance collaboration, and ensure that all team members had immediate access to the information they needed to perform their roles effectively. Through these objectives, the project focused on creating a streamlined, efficient, and user-friendly environment that met the firm’s operational and compliance needs.

## Foundational Tools and Technologies

The digitalization project for the law firm leveraged several key Microsoft 365 tools and technologies, each selected for its unique ability to enhance workflow efficiency, automate routine tasks, and support better document management practices. These tools included Power Automate, Power BI, SharePoint, and MS Lists, all developed by Microsoft to integrate seamlessly within the Microsoft 365 ecosystem. Additionally, Confluence, developed by Atlassian, was used to create a centralized knowledge-sharing platform for enhanced data accessibility and collaboration.

# Methodology

During my internship, I utilized a range of Microsoft 365 tools to design automated solutions that addressed critical challenges in the law firm’s workflow. One of the first steps was developing automated workflows using Power Automate, which was essential in reducing manual tasks that consumed time and left room for human error. I created workflows to automatically send reminders to colleagues for various tasks, ensuring that critical deadlines weren’t missed. This automation saved time on routine follow-ups and kept team members consistently informed. I also implemented an automation where emails containing attachments in PDF format would automatically save those files to designated folders in SharePoint, organizing them according to their relevance. This eliminated the need for manual sorting, freeing up time for employees to focus on higher-priority tasks and allowing them to access documents quickly and efficiently.

The first step involved analyzing the existing file management and workflow processes. Through discussions with employees and process observation, I identified key issues such as redundant data storage, delayed task completion, and security risks. Tools and Technologies selected to solve these problems were:

## Confluence

Confluence is a collaborative workspace developed by Atlassian that allows teams to create, share, and manage their work in a centralized location. It is commonly used for knowledge management, documentation, and project collaboration, providing a single source of truth for teams. With Confluence, users can create pages and spaces to document procedures, share project updates, collaborate on content, and store important information. With Confluence, access and permission to documents, rooms and pages can be restricted thereby making it a safe space. I created a series of interconnected pages in Confluence. Confluence’s macro function enabled me to link these pages and create a streamlined network of resources that team members could navigate with ease. Confluence is good because you can limit accessibility to a certain page and restrict others from seeing private content. I created 4 pages so that with a click you could see every worker’s name and all the files related to this person and also the different areas the company worked on. By setting up a central overview page with links to relevant files and tasks, I provided a one-click solution to access important documents and responsibilities across the firm. This structure not only facilitated quick access to data but also supported a well-organized digital workspace

## Power Automate

Formerly known as Microsoft flow, is a cloud-based service where users can create automated workflows between different applications and services. Users are able to do time-saving tasks and automate business processes. As a reminder, Power Automate can be used to send automatic reminders, system data movement, file synchronization, and data collection. It works with Microsoft 365 applications like SharePoint, Outlook, and Microsoft Teams, as well as third-party apps like Twitter, Dropbox, and more. Businesses can develop unique workflows that are tailored to their operations thanks to the use of triggers, conditions, and actions. Power Automate is an excellent tool that allows companies to be more productive, eliminate human errors, and ensure task consistency.

I created reminders which came in weekly as as emails with the links of the Powerbi dashboard created automatically updated so that the workers can have a look of the remaining audits available and who oversees what.

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*Figure 3-Automated Email with Powerbi dashboard*

## Power Bi

Power BI is a business analytics tool which is a product of Microsoft that allows users to visualize data, create interactive reports, and share insights across an organization. It helps the users to connect to different data sources such as Excel, SQL Server, cloud services, and APIs, in order to build live dashboards and detailed reports. Power BI also offers data sharing and collaboration features, allowing teams to share insights and make data-driven decisions. The tool is widely used in businesses to track key performance indicators (KPIs) and drive strategic decision-making.

## Microsoft Excel

Microsoft Excel is a widely used spreadsheet application that offers powerful features for data analysis, calculation, graphing, and automation. Excel allows users to organize, manipulate, and analyze large sets of data using formulas, functions, and pivot tables. Excel's charting tools enable users to create visual representations of data, such as bar charts, line graphs, and scatter plots, which help in identifying patterns and trends. With its advanced features like macros and integration with other Microsoft 365 applications, Excel can automate repetitive tasks and streamline workflows. Excel is used across industries for budgeting, forecasting, project management, and more, making it an essential tool for data-driven decision-making

## Microsoft Lists

Microsoft Lists is a productivity app in Microsoft 365 that helps users track information, organize workflows, and manage tasks in a structured manner. Lists provide a simple way to create, manage, and share structured data such as tasks, projects, inventories, and issue tracking. The tool offers various templates for different use cases and allows for customization to fit specific needs, including adding columns, setting rules, and configuring views. Microsoft Lists integrates well with SharePoint, Microsoft Teams, and Power Automate, making it a versatile tool for team collaboration and process automation. With features like conditional formatting, comments, and alerts, users can manage their data more effectively and stay informed about updates. Microsoft Lists enhances productivity by providing an easy-to-use interface for managing and tracking information across projects and teams.

To improve accessibility and centralize information, I created a series of interconnected pages in Confluence. Confluence’s macros function enabled me to link these pages and create a streamlined network of resources that team members could navigate with ease. By setting up a central overview page with links to relevant files and tasks, I provided a one-click solution to access important documents and responsibilities across the firm. This structure not only facilitated quick access to data but also supported a well-organized digital workspace where employees could find all the necessary resources in one place. This setup in Confluence significantly improved the team’s workflow by reducing the time spent searching for files or asking for updates on project progress.

An essential part of implementing these new processes involved creating detailed documentation and training materials to ensure that the team could transition smoothly to the digitalized systems. I developed step-by-step PowerPoint presentations to explain each process, providing clear instructions on how to use the new tools and workflows. These presentations included screenshots and annotated guides, making it easy for both new and existing employees to understand and operate the systems effectively. I also wrote detailed process descriptions, offering a reference guide that employees could consult if they encountered any difficulties. This approach was particularly helpful in familiarizing the team with new automation tools, especially those who had limited experience with Power Automate, Power BI, and Confluence.

Recognizing the potential learning curve for team members unfamiliar with these technologies, I conducted training sessions to reinforce the documentation and offer hands-on guidance. During these sessions, I demonstrated the key functionalities of each tool, explaining how automation would reduce their workload and improve efficiency. These sessions encouraged questions, allowing team members to address concerns and gain confidence in using the new systems. Through ongoing support and open communication, I helped the team build their skills, adapt to the new technologies, and fully leverage the benefits of the digitalized workflows. This gradual, supported transition proved effective in reducing resistance and fostering a collaborative, digitally adept team. The integration of Microsoft 365 tools and the structured methodology I employed helped the law firm overcome its initial inefficiencies, enhanced data accessibility, and optimized document management. The automation workflows, data migration, and visual tracking dashboard made processes more reliable, secure, and user-friendly. By establishing a strong digital foundation, I contributed to creating a more organized, transparent, and responsive workflow, which has lasting value for the firm’s ongoing projects and future development.

# Results

Through the implementation of the Microsoft 365 tools, I observed significant improvements in both task completion times and data accessibility across the law firm. Each tool brought distinct advantages, collectively transforming the firm’s workflow into a more streamlined, organized, and efficient process.

## Power Automate

Power Automate proved to be a game-changer in reducing the manual work that previously consumed much of the staff's time. By creating automated workflows, such as task reminders and email-to-PDF file routing, I eliminated the need for routine manual interventions. This reminder sends an email when the deadline of the audits request is left with four days to expire.

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*Figure 4-Automated Reminder of Audit requests with due dateline*

Also, I created flows which automatically keep the pdfs or attachments from an email in the correct Folder in Sharepoint. The automated email filing system based on the company and email subject also improved document organization by instantly placing incoming documents in the correct SharePoint folders, making them immediately accessible.

A screenshot of a computer screen

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*Figure 5- Automatic upload of email attachment in sharepoint*

## MS Lists

The migration from Excel to MS Lists yielded substantial benefits in data organization and accessibility. I systematically migrated the data, restructuring it to fit the List format and ensuring that relevant metadata was preserved. MS Lists offered more robust organization and sorting capabilities compared to Excel, enabling users to apply multiple filters to find specific data efficiently. Initially, the firm's reliance on Excel for data management was inefficient, especially in searching and filtering large datasets. MS Lists, with its advanced filtering and search capabilities, streamlined data management by allowing users to quickly find and categorize information. This shift led to fewer delays in accessing records, as the team could instantly apply filters to pinpoint relevant entries without manually scrolling through extensive spreadsheets. MS Lists also offered enhanced data integrity, as users could now edit records in a controlled environment, reducing instances of duplicate or erroneous data entries. The structured format of MS Lists improved data retrieval times, minimized errors, and significantly simplified data management for the firm, making it easier to access, update, and track information.

## Power BI

For tracking Audit requests, I developed a Power BI dashboard that provided a clear visual representation of ongoing projects and deadlines. This dashboard showed the number of incomplete requests, the person responsible for each of them, and the time remaining before deadlines. This visual representation of data allowed team members to identify which audits required immediate attention, who was responsible for them, and how much time remained before deadlines. Power BI’s interactive features enabled the team to sort contracts by priority, facilitating better time management and resource allocation. The dashboard also contributed to greater accountability, as it clearly indicated individual responsibilities, making it easy for team leaders to follow up on specific tasks. The improved transparency provided by Power BI not only enhanced task management but also encouraged proactive completion of tasks by employees. By centralizing contract data in one place, the Power BI dashboard promoted a more organized and accountable work environment, effectively reducing bottlenecks in contract processing.

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*Figure 6-Powerbi Dashboard showing open Audit requests*

## Confluence

Integrating Confluence as a central document management system improved accessibility and collaboration among team members. By creating an organized network of linked pages through Confluence's macros Page tree, I enabled a one-click solution for accessing essential documents and resources. Previously, the team had to navigate multiple directories or request assistance to find relevant files, which slowed down their work and disrupted focus. With Confluence, all resources were neatly organized and interlinked, enabling employees to access any required document instantly. This new structure not only reduced search times but also improved inter-departmental communication, as all project information was available and updated in **real time**. By offering a centralized hub for document sharing, Confluence made it easier for team members to stay informed, align on objectives, and manage project details effectively, fostering a more cohesive and collaborative environment.

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*Figure 7- Overview of Confluence dashboard showing the different sectors*

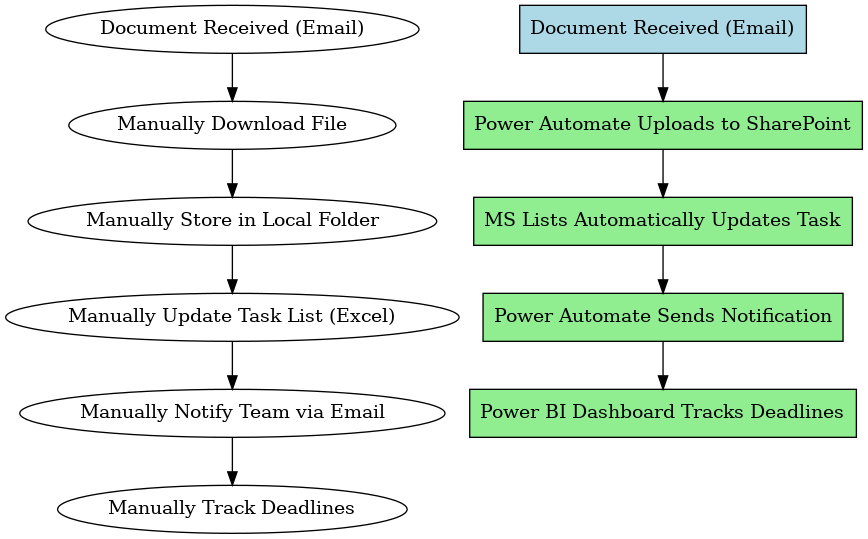
## Documentation and Training Materials

The process documentation and training materials I created provided a strong foundation for the team to understand and adapt to the new digital tools. Detailed PowerPoint presentations and step-by-step guides reduced the learning curve, allowing employees to become proficient with the newly implemented systems quickly. As a result, team members experienced fewer difficulties adapting to Power Automate, Power BI, MS Lists, and Confluence, even if they were initially unfamiliar with these platforms. The training materials proved particularly useful for onboarding new staff, as the documentation allowed them to familiarize themselves with the firm’s digital workflow independently. This enhanced team readiness and confidence, leading to smoother transitions and ultimately increasing the effectiveness of each tool within the firm’s daily operations.

## Comparison with Initial Expectations

The digitalization project not only met but exceeded the initial expectations set out at the beginning of my internship. While the primary objectives were to streamline document management, enhance workflow efficiency, and improve data accessibility, the solutions implemented achieved these goals with more extensive benefits than anticipated. For instance, Power Automate’s impact on reducing manual work was more pronounced than expected, as routine tasks were completely automated, allowing employees to focus on higher-value tasks. Similarly, the move to MS Lists went beyond just improved organization; it fundamentally enhanced data accuracy and user experience. Power BI’s role in contract tracking provided unexpected insights into team performance, fostering accountability and productivity. Confluence, which was initially intended to organize files, also promoted greater collaboration and transparency across teams. Altogether, the outcomes of each solution aligned with and expanded upon the initial objectives, delivering sustainable improvements that significantly enhanced the firm's operational efficiency and accessibility.

The diagram illustrates the transition from a manual document management system to an automated workflow using Power Automate, SharePoint, and Power BI.

**

*Figure 8:* *Workflow Comparison – Before and After Automation*

# Discussion

During my internship, I gained valuable professional skills that will serve me well in my career. My proficiency in Microsoft 365 tools, particularly Power Automate, Power BI, Confluence, SharePoint, and MS Lists, grew tremendously as I used these applications to address real-world challenges in a legal environment. I learned how to design, implement, and troubleshoot workflows and dashboards, enabling me to automate repetitive tasks, enhance data visualization, and streamline document management effectively. Through these hands-on experiences, I also developed a stronger grasp of project management, as I coordinated with team members to identify inefficiencies and adapt solutions that could be seamlessly integrated into their daily operations. Additionally, I honed my technical problem-solving skills by overcoming challenges related to data migration, user adoption, and system integration, skills which will be vital as I advance in industrial engineering and other complex project settings.

Applying industrial engineering principles required me to think creatively about workflow optimization, resource allocation, and process efficiency—core aspects of industrial engineering but applied in a unique way within this non-engineering setting. My background in industrial engineering allowed me to view the firm’s administrative processes through a lens of efficiency and continuous improvement, helping me identify bottlenecks and inefficiencies in existing systems. For example, I applied lean principles to eliminate redundant steps in document handling, enhanced data accessibility with organized digital structures, and used automation to reduce delays in routine tasks. These experiences underscored how industrial engineering principles of system optimization and waste minimization can be applied beyond traditional manufacturing or production settings, broadening my perspective on the versatility of my field.

The team had limited experience with automation and digital data management, so I had to ensure that the solutions I developed were intuitive and didn’t disrupt their existing workflows. This experience reinforced the importance of communication and adaptability, as I needed to explain complex processes in clear, straightforward terms and actively listen to the team’s feedback to make continuous adjustments. Working with professionals outside my own field of study allowed me to develop a deeper understanding of how industrial engineering can enhance operations in diverse sectors and strengthened my ability to bridge the gap between technical solutions and user needs.

Reflecting on this experience, I am more confident in my ability to bring structured, process-oriented solutions to any work environment, regardless of its specific industry focus. The internship helped me appreciate the importance of adaptability and continuous learning, as each new environment will present unique challenges that require innovative solutions. Furthermore, seeing the tangible impact of my work on the firm’s efficiency and productivity deepened my commitment to using my engineering skills to bring meaningful, practical improvements to organizations.

## Challenges and Problem Analysis

In the initial stages of the digitalization project, several inefficiencies were observed in the law firm’s existing document management and task tracking systems. The previous setup relied heavily on manual processes, which led to redundant storage, delayed access, and a lack of structure in document organization. Documents were often duplicated across multiple folders, resulting in confusion and wasted time as employees searched for the correct files.

One of the primary challenges encountered during the implementation of these digital solutions was managing the technical limitations associated with the firm's pre-existing infrastructure. Many of the employees were unfamiliar with advanced Microsoft 365 tools like Power Automate and Power BI, and while these tools offered significant advantages, they also required considerable customization to fit the firm’s unique needs. Technical configurations, such as setting up automated workflows and customizing dashboards, were complex and had to be adjusted frequently to address unforeseen needs or limitations. This required extensive troubleshooting and ongoing adjustments to ensure that the new systems could seamlessly integrate with existing processes without causing disruption.

Another significant challenge involved data migration, particularly transitioning from traditional Excel-based storage to SharePoint and MS Lists. Migrating a large volume of files while maintaining data integrity was a meticulous process that required careful planning. File structures had to be redefined, metadata preserved, and access permissions carefully configured to prevent any potential security risks. The migration process also raised issues of data accuracy, as duplicate files or inconsistent data structures from the old system needed to be cleaned and standardized. Ensuring that files were correctly organized and accessible post-migration was time-consuming but critical for maintaining operational continuity and minimizing disruption.

The adjustment period for employees was also a notable challenge, as many colleagues were accustomed to manual workflows and faced a learning curve with the automated systems. Transitioning from familiar, routine practices to using automated workflows required a shift in mindset, as well as additional training and support. Some employees were initially hesitant to rely on automated reminders or dashboards, preferring manual checks to monitor tasks. Additionally, adapting to a centralized system in Confluence for data accessibility required changes in work habits. To address these challenges, training sessions and comprehensive documentation were provided, but even with these resources, the adjustment took time as employees gradually built confidence in the new digital processes. Despite these challenges, the team’s willingness to adapt and the eventual improvement in efficiency underscored the project’s value in transforming the firm’s workflow.

# Conclusion

Throughout my internship, I successfully contributed to the digital transformation of the company by addressing inefficiencies in document management, task tracking, and communication. By implementing automated workflows using Power Automate, migrating data to MS Lists for improved accessibility, creating a Power BI dashboard to track audit requests progress, and developing Confluence pages for centralized information access, I helped streamline the firm's administrative processes. These improvements led to enhanced operational efficiency, reduced manual work, and more secure document management, ultimately making the workflow smoother and more effective. The project not only aligned with my academic focus on industrial engineering but also provided a real-world opportunity to apply my skills, making a tangible impact on the firm’s daily operations.

## Future Recommendations

Looking ahead, there are several opportunities to further enhance the digitalization efforts within the company. One potential improvement would be to integrate advanced analytics into the Power BI dashboard, allowing for deeper insights into task performance, resource allocation, and process bottlenecks. Incorporating predictive analytics could help forecast project timelines and identify potential delays before they occur. Additionally, a deeper integration of other Microsoft 365 tools, such as Microsoft Teams for communication and collaboration, could be explored to create a fully integrated ecosystem that improves team interaction and knowledge sharing. These enhancements would not only continue to streamline operations but also foster a more collaborative and data-driven work environment, further increasing the firm's overall productivity and effectiveness.

# Summary and Outlook

As part of the Industrial Engineering curriculum at Rhine-Waal University of Kleve, an internship is a mandatory component designed to provide students with practical insights and hands-on experience in real-world professional settings. This opportunity allowed me to apply the theoretical concepts and skills developed throughout my studies in a professional environment. This digitalization effort aligned with core industrial engineering principles, as I was tasked with eliminating waste, reducing inefficiencies, and optimizing workflows within a professional context quite different from typical engineering-focused environments.

During the internship, I engaged deeply with various Microsoft 365 tools, including Power BI, Power Automate, SharePoint, and MS Lists, to implement automated solutions that addressed the firm’s specific challenges. My projects centered on creating efficient and user-friendly workflows for document management, task assignment, and data security. For instance, by transitioning from Microsoft Excel to SharePoint for document storage and creating automated workflows in Power Automate, I was able to streamline processes and improve accessibility for team members. Additionally, by using Power BI to track project progress and automate reminders, I helped optimize the firm’s task management system, which previously relied heavily on manual updates and lacked centralized visibility. These solutions were designed to ensure that employees could retrieve data quickly, track task completion, and collaborate effectively—all essential outcomes in a fast-paced, information-sensitive field like law.

One of the most valuable aspects of this internship was the exposure it provided to the interplay between technical optimization and compliance within a legal context. Working in the legal sector required me to consider not only process efficiency but also strict data security and confidentiality requirements. This added a layer of complexity to my work, as the tools and workflows I implemented needed to meet both operational and regulatory standards. For instance, while implementing automated document management solutions, I had to ensure that access controls and permissions were carefully managed in SharePoint and Confluence. This requirement helped me appreciate the importance of risk management and regulatory compliance in system design, as well as the need to balance accessibility with security—an insight that will be invaluable in my future career. The internship proved to be an enriching experience that expanded my understanding of industrial engineering applications beyond traditional sectors, highlighting the versatility and relevance of engineering principles in diverse professional fields.

List of references

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