Automation in Financial Reporting: A Case Study

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Financial Reporting is the key in understanding the financial information of an organisation in a clear and organised way. With the advent of Artificial Intelligence (AI), there has been a significant shift towards automation due to its numerous benefits, including improved data quality and integration, cost and time savings, scalability, flexibility, and enhanced operational efficiency. Financial reporting is one area that has particularly embraced these advancements.

This article explores the necessity of automation in financial reporting, focusing on the use of the automation tool Alteryx with the AnaCredit dataset. It examines the outcomes of incorporating automation into daily financial reporting practices, demonstrating the tangible benefits and improvements achieved through this technological integration.

Keywords: *business process automation, financial reporting, Alteryx automation*

1 Introduction

The technological world is evolving rapidly and imposes on companies the need to adapt to these changes quickly, not only to keep up but also to implement and use new technologies to gain a competitive advantage. In the past, computers and software solutions were considered an aid for businesses, but due to digital transformation, they are now at the forefront of innovation, being a major force in the growth of companies. [1]

In the finance industry, numerous areas still remain nowadays without automation. According to an SAP study, some processes with the highest automation opportunities include Financial Reporting, Accounts Receivables, Payroll and Cash management. [2] Also, a study conducted by KPMG states that when discussing about the current state of automation, 59% of the respondents believe that in financial reporting there is very little automation and only 3% states that there is significant automation. [3]

Also, according to a survey by the Institute of Management Accountants (IMA), financial reporting is the area most expected to change significantly or completely over the next five years due to technology evolving. Automation has enabled many companies to streamline the process of producing financial statements. Once set up, the platform can generate monthly financial statements efficiently. This capability contributed to the average financial reporting time for U.S. businesses dropping to just 10 days in 2019, three days less than in 2018, according to Robert Half [4]. Remarkably, 39% of organisations with revenues under $500 million have automated their financial report creation.

Automated financial reporting ensures accuracy, transparency, and credibility, making it useful for various business needs—from bank reports and investor due diligence to earnings reports. This automation frees financial professionals to focus more on analysing results and allows both internal and external stakeholders to receive critical information sooner, aiding in decision-making. [5]

We can mention that automation brings not only operational and financial benefits but also improves employee well-being by reducing repetitive and monotonous tasks. These tasks are much faster and safer when done through such a process. [6]

This article is based on a case study that aims to demonstrate the need and efficiency of process automation in financial reporting. The structure is divided into four main topics: literature review, methodology, the case study, and conclusions. First, the focus is on the need for automation in the financial sector, particularly in reporting activities— why it is necessary, what has been done, and what could be done. The methodology section describes the research method used in this paper, along with the process and main steps involved. The third section presents the automation implemented for financial reporting, and lastly, the conclusions are presented.

2 Financial Reporting nowadays

In today's world, companies have understood the necessity of financial reporting and know how to use it rigorously. According to a KPMG poll on financial reporting and artificial intelligence (AI) [7], businesses are embracing cutting-edge technology more often to improve their financial reporting capacities. Using AI to make financial disclosures more accurate and efficient is one example of its multiple use cases. [8]

A GRI research states that 79% of the top 100 corporations in each of 58 nations (N100) and 96% of the world's largest 250 enterprises (G250) report on environmental, social, and governance (ESG) concerns or sustainability. This demonstrates that big firms throughout the world have a high adoption rate of comprehensive financial reporting methods. [9]

International Financial Reporting Standards (IFRS) are required for listed corporations, and regulations like Directive 2013/34/EU have harmonised financial reporting requirements throughout the European Union. By ensuring that businesses operating inside the EU adhere to a uniform framework for financial reporting, these laws help to make financial statements clear and comparable across national borders. [10]

What is more, a study conducted by KPMG on automation of financial reporting and technical accounting states that 90% of the respondents see value in automation of the group financial reporting and three quarters of respondents reported spending over 10% of their time manipulating data to generate insights. In an average work week, this amounts to more than half a day. Consequently, a third of the respondents dedicate over 10 weeks per year to this task. [11]

Additionally, the integration of advanced technologies such as blockchain and machine learning is poised to further revolutionise financial reporting. Blockchain offers enhanced transparency and security for financial transactions, while machine learning can predict financial trends and detect anomalies with greater accuracy.

The results of McKinsey and Company show that artificial intelligence (AI) greatly increases the efficiency and accuracy of financial reporting by automating repetitive operations and providing predictive analytics for tactical decision-making. However, there are several significant obstacles, like the high cost of AI integration, the requirement for trained staff fluent in AI, and data protection issues. The report also emphasises that one major obstacle to AI adoption in accounting processes is reluctance to change. [12]

Automation reduces the possibility of human mistake in reporting and data input, guaranteeing consistent and accurate data submission. Financial reporting leaders have distinct concerns for AI and GenAI. For AI, the focus is on model transparency and data privacy, while for GenAI, accuracy, data management, and bias are primary concerns. Major barriers to AI adoption include reliance on algorithms, the fast pace of changing regulatory guidelines, and data quality. This is essential to achieving the high standards that regulatory organisations demand. [7] In a survey made by KPMG on the theme "Will AI transform financial reporting and audit?", the conclusions state that 65% of financial reporting leaders report their functions are using AI, 70% of leaders whose companies are already using

AI report they expect to roll out AI solutions more broadly over just the next two years, 47% of financial reporting leaders agree GenAI will deliver on the hype, while 38% disagree and 72% of financial reporting leaders believe external auditors are ahead of financial reporting functions on using AI and expect AI to enhance audit quality.

Financial reporting leaders believe AI will bring numerous benefits, including increased efficiency (51%) and reduced staff burden, more accurate and reliable data (50%), better ability to identify outliers (48%), solutions to staff shortages (27%) and cost savings (25%). [7]

The amount of time and work needed to gather and report credit data is greatly decreased by automated procedures. This way, institutions are able to concentrate their resources on analysis and strategic decision-making instead of manual data gathering and reporting because of this efficiency benefit. [7]

Automation contributes to regulatory compliance by automatically applying the appropriate standards and reporting criteria. This lowers the possibility of fines for non-compliance and improves the institution's capacity for risk management.

Automated solutions may easily interface with the institution's current data sources and processes, enabling thorough data aggregation and more perceptive reporting. Better strategic planning and decision-making are supported by this integration.

Automation may save financial organisations a lot of money by eliminating the need for labour-intensive manual processing and the related expenses. These savings might be used to fund other important initiatives like customer service and innovation. [9]

Without requiring a substantial increase in expenditure, automated systems may readily expand to accommodate growing data quantities and adjust to changing regulatory requirements. Because of its scalability, institutions may develop and grow without encountering significant operational challenges. [13]

3 Research Methodology

The main research methodology approached for this article was instrumental case study, as it uses the case examined to gain insights into the issue presented. The authors wanted to focus on an area with a high opportunity for automation - financial reporting, as previously demonstrated in the article.

Examining the automation of a financial reporting process using a case study method has numerous important benefits. [14] First of all, it offers a thorough and in-depth analysis that makes it possible to examine each stage in detail and the automation's overall impact. By showing how automation is used in a real-world setting, this approach guarantees practical relevance and increases the applicability and usefulness of the findings for experts in the field. Case studies' distinctiveness enables context-specific outcomes that address special possibilities and difficulties within a certain process or organisation. In addition, compared to abstract theoretical models, the material in a case study is more accessible and easily understood due to its narrative structure. Last but not least, a thoroughly documented case study may become a model for best practices, providing a detailed roadmap that other people can use to get comparable outcomes in their own financial procedures. [15]

In **Fig.1**, a UML activity diagram was created to highlight the six main steps used to conduct the case study.
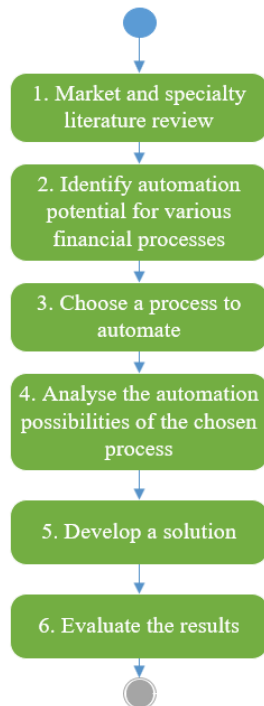
Fig. 1. Activity diagram for case study
Source: Authors' own research

Step 1. Market and specialised literature review
This step involves an in-depth investigation of current trends in financial process automation and the latest publications in the field. It began with a review of the literature by analysing scientific articles, books, and specialised reports to understand the fundamentals and recent developments in financial process automation. Next, a market analysis was conducted to evaluate existing solutions, identify key technology providers, and the available automation tools, such as RPA (Robotic Process Automation), AI (Artificial Intelligence), and ML (Machine Learning). Finally, emerging trends and innovations in the field that can influence or improve the automation of financial processes were identified.

Step 2. Identify automation potential for various financial processes
For the second step, the financial processes within the organisation were evaluated to determine which are most suitable for automation. The main processes within the organisation were identified and documented, such as financial reporting, account reconciliation, invoice management,

and others, and the potential benefits of automation for each process were assessed, such as cost reduction, improved accuracy, and efficiency.

Step 3. Choose a process to automate (In this case, a complex reporting process that encounters numerous difficulties was targeted).
The complexity of these processes was then evaluated by analysing the workload, how frequently they are executed, and the degree of repetitiveness, to identify the process that encounters the most difficulties and errors and is the most time and resource-consuming: financial reporting, a process carried out at the end of each month.

Step 4. Analyse the automation possibilities of the chosen process
To identify automation opportunities for the financial reporting process, the current steps of the company were documented, and documentation was carried out by analysing various automation tools and technologies available on the market. Alteryx was used as the automation tool, and the selected reporting type was AnaCredit, a dataset containing detailed information on individual bank loans in the euro area. The reporting process is complex and was chosen because it encounters numerous difficulties observed in daily work. Alteryx is a leading platform for data science and analytics that can assist organisations with data preparation, blending, analysis, and visualisation. Due to its intuitive interface and wide range of tools for advanced reporting, predictive analytics, and data manipulation, users can draw conclusions from their data more effectively. With these elements in place, an automation solution was developed to verify and correct the dataset received from the client, nearly eliminating the need for manual checks.

Step 5. Develop an Automation Solution
The final step in the process involves creating and implementing the automation solution for the selected reporting process. Using the automation tool selected in the

previous step, the solution was developed, and tests were conducted to ensure its correct functioning.

Step 6. Evaluate the results (in this case, a comparison of the proposed solution with the previous method of performing the process)

The purpose of the case study was to observe the effects of automating one of the most frequently used financial processes. To achieve this, three KPIs were established at the end of the study to measure the time saved through automation, the differences in error rates, and the associated costs. The comparison was made between quantitative data from an entity with an average of 750 clients and approximately 3000 financial instruments over a 15-month period (from January 2023 to April 2024) and the output obtained after automation. During this period, the entity conducted the reporting activity both manually and using Alteryx to highlight the differences between the two methods.

4 Automation of AnaCredit Reporting using Alteryx

There are various financial reporting requirements applied in each eurozone country and mandated by regulatory authorities for several reasons, such as: aiding investor decision-making, complying with European-level regulations, assessing creditors, and so forth. However, the primary financial situation analysed is AnaCredit.

AnaCredit is a shared multipurpose dataset containing loan-by-loan information on credit extended by credit institutions to companies and other legal entities. On 18 May 2016 the Governing Council of the ECB adopted Regulation ECB/2016/13 on the collection of granular credit and credit risk data (AnaCredit) establishing Stage 1 of a shared database for the European System of Central Banks (ESCB) as of September 2018. The database contains 88 attributes, updated mostly on a monthly basis, based on harmonised concepts and definitions common to all participating countries.

One of the main purposes of AnaCredit is to provide a detailed and coherent picture of credit exposure and related risks, thereby facilitating financial supervision and macroeconomic stability analysis across the euro area. [16]

To simplify it, AnaCredit is providing a magnifying glass to help analyse credit and credit risk, usually in the EURO area. [17]

In fact, AnaCredit is part of an international model called the "European Reporting Framework" (ERF), which enables all European authorities to have an overview of the banking framework in the European Union.

Since 2018, following this regulation, information regarding credits, corporate financing, and guarantees provided by the financial system has been collected from banks domiciled in the territory, as well as their branches abroad. It is specified that the value of the credit in question for data collection must exceed EUR 25,000. [18]

4.1 Challenges faced in manual AnaCredit reporting processes

Manual AnaCredit reporting processes pose significant challenges for financial institutions. One of the primary hurdles is the labour-intensive nature of data collection and aggregation. Gathering the required data from various sources is a time-consuming task prone to errors. Moreover, manually aggregating data from disparate systems or sources can result in inconsistencies and inaccuracies, undermining the reliability of the reporting process. [19]

Ensuring the quality and integrity of data is another major challenge. [19] Manual data validation and verification processes are susceptible to oversight, especially when dealing with large volumes of data. Without automated checks in place, maintaining data quality becomes increasingly challenging, raising concerns about the accuracy of reported information.

The complexity of AnaCredit reporting requirements further complicates manual processes. Regulatory guidelines are often intricate and subject to frequent updates and

revisions. Understanding and interpreting these guidelines manually can be daunting, increasing the risk of non-compliance and regulatory penalties. [20]

Timeliness is also a critical issue in manual reporting. Manual data collection and validation procedures can lead to delays in reporting, jeopardising compliance with regulatory deadlines. Without automated workflows, financial institutions may struggle to meet reporting obligations promptly, potentially facing regulatory sanctions. [21]

The risk of errors and inconsistencies is inherent in manual reporting processes. Human involvement in data entry and manipulation increases the likelihood of errors, such as typos, duplicate entries, and calculation mistakes. Furthermore, inconsistencies may arise in reporting formats and methodologies when different individuals or teams handle the reporting process manually. [22]

Manual reporting processes are resource-intensive, requiring significant human resources in terms of time, effort, and expertise. Allocating staff to manual reporting tasks diverts resources from other strategic activities within the organisation, limiting productivity and efficiency.

Scalability is another challenge faced by manual reporting processes. As data volumes grow or reporting requirements change, manual workflows may struggle to accommodate these shifts effectively. Adding new reporting entities or expanding reporting scope can strain manual processes and increase the risk of errors and delays. [23]

Maintaining a comprehensive audit trail and documentation of manual reporting processes presents additional challenges. Without automated systems to track and document every step of the reporting process, ensuring compliance with regulatory requirements and internal controls becomes more difficult. [21]

In summary, manual AnaCredit reporting processes are fraught with challenges ranging from data collection and validation

to compliance and scalability. Addressing these challenges requires the implementation of automation solutions that streamline reporting workflows, improve accuracy, and enhance compliance capabilities. [13]

4.2 Automating example of Financial Reporting

In **Fig. 2**, the workflow of the automation project in Alteryx is depicted. It is structured across multiple levels of data validation in different quadrants. It can be observed that in the first quadrant, CSV Integration Engine-Data INPUT the path where the seven Excel files will be found is specified, and then, based on the file name using the Filter tool, a separate flow is created for each one of them that can be followed in horizontal connections and at every step the before and after status of the files can be checked. It is useful that Alteryx does not overwrite the input documents and keeps each version of them. This way, any changes can be easily observed.

Then the Select Tool focuses on transforming the data into the desired format so that it can be subsequently modelled. For example, initially in the file, the columns containing date information are viewed as String data type, but they need to be converted to Date type to allow comparisons. To process the cells newly transformed into Date type, different formulas are applied to either verify or transform the information according to a set of imposed rules. This is handled by the container called Dates Adjustments Rules Implementation Engine, where we can find the Formula Tool where IF cases are applied for mandatory attributes such as the financial instrument first reporting date (inception date) that obviously should be less or equal to the reporting date. An example of such a condition can be written as: "*IF [inceptionDate]>[reportingDate] THEN [reportingDate] ELSE [inceptionDate] ENDIF*", the structure of the IF clause is simple and the name of the attributes from the condition and output are

identified by Alteryx using the square brackets.

The next container, Default Values for Mandatory Attributes Engine, focuses on correcting information and filling in missing information. For these columns, it is mandatory to report various values that are accepted by regulators, so they cannot be missing from the files. If the values are missing then the default values are reported, usually the codification number for these situations means "other" so that it does not affect the quality of the report and it can be changed to a more accurate information if it will be identified in the future, or "Non-Applicable value" can be declared if the element is accepted in the Validation Rules from the regulators.
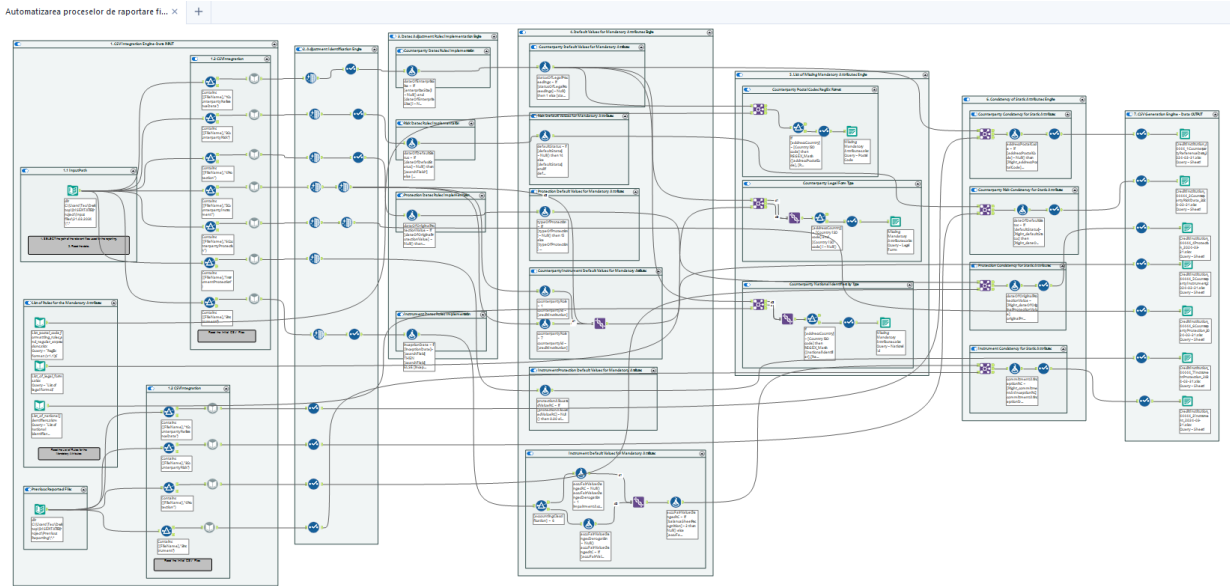

Fig. 2. Alteryx automation workflow

Source: Authors' own research

For the case of correcting the existing data there are several situations based on the category of the declared client, protection, or financial instrument that need to be simultaneously accepted such as for the instruments declared at accounting classification: "IFRS - Financial assets at amortised cost" and balance sheet recognition: "Entirely recognised", for this situation it means the instrument is subject to impairment under the applied accounting standard and in the report it is mandatory for the attributes accumulated Impairment amount, type of impairment and impairment assessment method to be declared and the Non-Applicable values to be used for the accumulated Fair Value Changes Amount. Using Alteryx all these validations and modifications are easily made by using the Filter Tool separating the instruments by their type, the changes are applied in parallel for each case and then all the instruments are united again using the Union Tool.

Then we move on to the fifth container, List of Missing Mandatory Attributes Engine. Within this container, by consulting a list of accepted values and available RegEx formats on central bank websites, the information is verified.
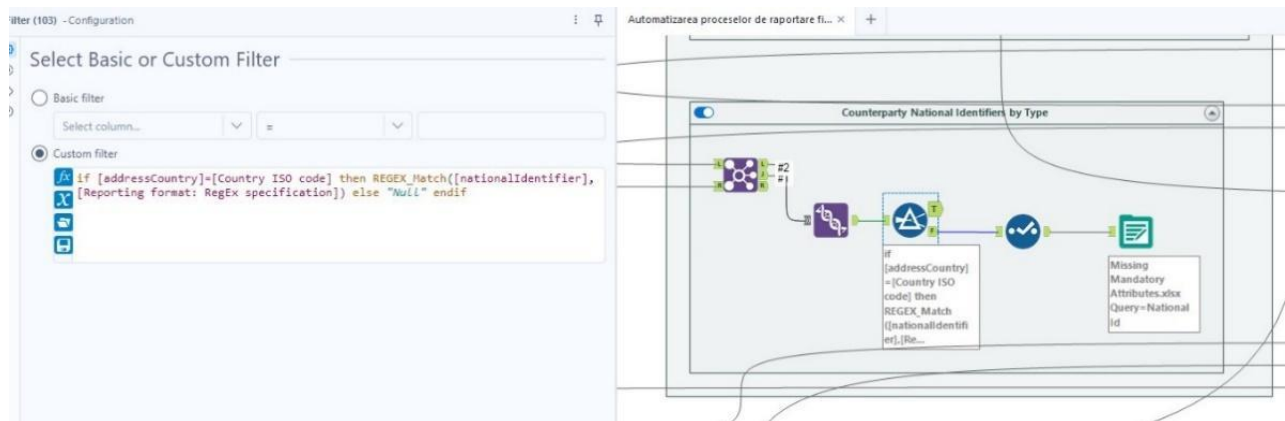
Fig. 3. Counterparty National Identifiers by Type
Source: Authors' own research

This verification is carried out in the previous figure. The latest format of the file, with all the processing done, is taken and then a Join is performed using the country's ISO code (*adressCountry*) and the type of identifier (*typeOfNationalIdentifier*). After this join, there may be unidentified values, so a Union is used to bring in all values, even if there are countries not accepted in the list of National Ids. Then, a new file will be created with only the attributes that do not comply with the format, which will be corrected manually by querying available internal databases or public databases. Although this operation is done manually, the required time is minimal.

In the Excel file, there is a column "Identifier type." Using this, with the "If-clause" structure shown in the figure, the country will be identified and filled in the "Country ISO Code" field, then filtered by type of national identifier, and the formula found in the file for RegEx will be searched, which is filled in the "Reporting format: RegEx specification" column. For example, for Spain, the formula will be *{A-Z0-9}{9}*, and for Japan, it is *\d{13}*. The next column is "Reporting format: description," where the formula from the previous field is described.

Quadrant 6, Consistency of Static Attributes Engine, focuses on static attributes, those that must be reported consistently with the same value, checking their accuracy. For example, two values that always remain the same are the creation date of a financial instrument and the first reported amount. In this step, the comparison is made between the current and previous reports, and if the information is incorrect, then the value from the previous report will be used instead to keep the static attributes from generating errors. The previously reported files are available in the first container, where the path is configured accordingly and using the Join Tool, Formula Tool and Select Tool the current data is compared and corrected.

The final container, CSV Generation Engine – Data OUTPUT, is responsible for saving the resulting files with the Output Data Tool, where the location of the files is configured, also converting the data types back to those accepted by the regulator using the Select Tool. Keep in mind that the corrected files are different from the initial ones and they can be saved to a different location or at the same location with them, but they won't overwrite the initial files.

5 Results and Discussions
At the end, for a better understanding of the benefits obtained using the automation of financial reporting, a comparative analysis was conducted over a period of 15 months (January 2023 – March 2024) between the two reporting methods: manual and

automated, within a medium-sized firm. This was done by using a Macro from Alteryx, which compares files to observe differences, and then the data was interpreted in Tableau. [24] The entity for which the statistics were performed consists, on average, of 750 active clients and approximately 3000 financial instruments.

The three situations analysed are as follows:

- The duration of reporting manually versus the duration of reporting using Alteryx;
- The costs involved in manual reporting versus the costs involved in automated reporting;
- The number of errors due to human factors versus the number of errors using Alteryx. Over this period, the entity developed reporting activities both manually and using the Alteryx tool so that the differences of cost, duration
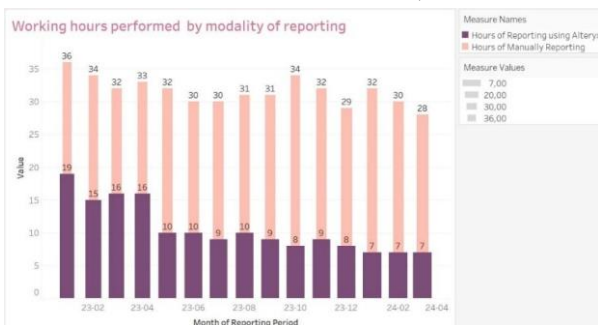
and errors could be easily noticeable.

Fig. 4. Working hours performed by modality of reporting from January 2023 until April 2024

Source: Authors' own research

In **Fig. 4**, a comparison is shown between the hours required for manual reporting and those needed for automated reporting. Initially, using Alteryx automation, the duration was longer—reaching up to 19 hours when they began implementing this method in January 2023. However, over time, after employees became familiar with the tool, it decreased to a constant 7 hours for reporting (January, February, March

2024). For manual reporting, a slight decrease in the time required can be observed, from 36 hours in the first month analysed to 28 hours, but comparing the two methods, automation saves significantly more time. Using Alteryx automation for reporting leads to a fourfold increase in speed. Once employees learned how to use this tool, the time required changed significantly from month to month, from 16 hours needed in April 2023 to 10 hours needed in May 2023.

Even though time has passed since the analysis in Fig. 4, we can deduce that time does not significantly improve the manual process. Therefore, this process is much more limited, raising a question mark for companies truly aiming to achieve high performance in their operations.
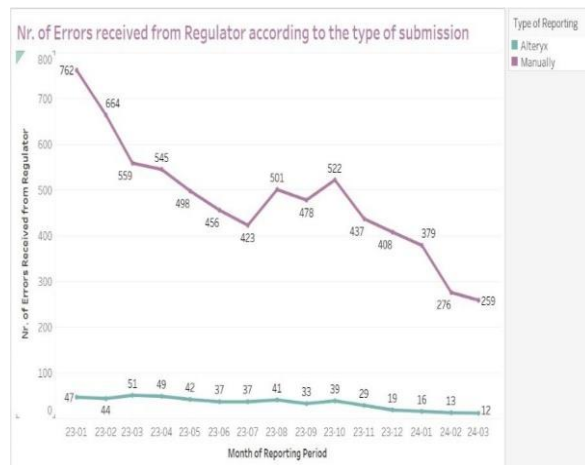
Fig. 5. Number of errors received from regulator according to the type of submission from January 2023 until April 2024

Source: Authors' own research

The figure above highlights the difference between the number of errors in the automated process compared to the number of errors in the manual execution. It can be observed that in both cases the number of errors has decreased, but in manual reporting, although the number has significantly decreased, there is still a large difference compared to the automated method. Automated process errors have consistently been fewer than those made by manual execution, emphasising the

reliability and accuracy benefits of automation. By March 2024, there were 259 human errors, compared to 12 errors from automation in March 2023.

It is worth mentioning that most of the errors in automation are due to incomplete data from client files. In some cases, missing, incomplete, or incorrect fields can be filled or corrected, but there are situations where this is not possible.

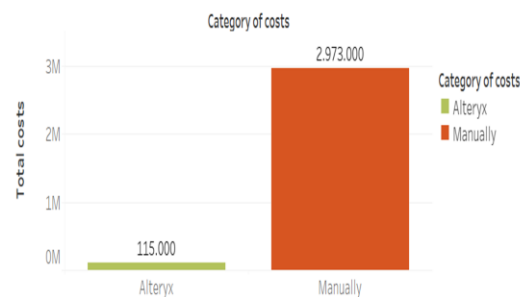In such cases, the client is contacted to correct the information.

Fig. 6. Comparison of costs according to reporting type for 2023
Source: Authors' own research

A significant difference in costs between the two methods can be observed in **Fig. 6** and **Fig. 7**. In the case of manual reporting, costs are significantly higher due to the greater number of errors and the increased need for resubmissions. Additionally, in the analysed situation, there was a month in which the delivery deadline was missed, resulting in a penalty. When the human factor is involved, there is a higher chance of missing deadlines compared to using a tool that handles data correction.

From **Fig. 6**, we can observe that the difference between the automated procedure with Alteryx and the manual procedure is quite significant. Because of this, any unforeseen costs in the automated process would find it challenging to exceed this difference. If a company chooses to implement the automated method, it can allocate the

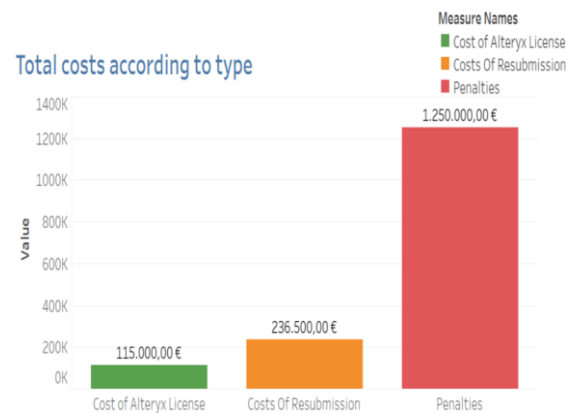money saved to other activities within the company.

Fig. 7. Total costs according to type for 2023
Source: Authors' own research

If errors occur, it is necessary to resubmit the report to the central banks after correcting them, and each resubmission incurs a fixed cost. The involvement of human intervention significantly increases the likelihood of errors, necessitating the re-submission of reports far more frequently than when utilising automation. In the case of missing the reporting deadline, a fixed penalty is applied, which is shown in the graph as the third column. Of course, this doesn't necessarily have to happen annually or, hopefully, at all. However, even if the expenses for such a fine are eliminated, the costs of automation would still be significantly lower.

In the case of process automation, there is an initial cost involved, specifically the licence for the Alteryx tool, represented by the first green column on the left. Errors can also occur here, necessitating resubmission, but the number of such errors is significantly lower (as discussed in the previous graph). The company may encounter additional costs if it opts to engage a consultant to conduct employee workshops, provide supervision, and facilitate familiarity with the tool. These costs are one-time expenditures incurred at the initial stage of adopting the method. Moreover, the total payment required for these services is not

expected to exceed the expenses associated with submitting information to central banks, which are primarily due to the prevalence of human errors.

6 Conclusions

Nowadays, technology is advancing at a rapid pace, and companies should keep up with these changes. With the emergence of artificial intelligence and automation, many traditional daily tasks are becoming obsolete. As this study shows, it is undeniable that automation, where possible, is far superior to manual work.

Of course, there are some processes that cannot be automated—those requiring creativity or human interaction. However, according to the above analysis, it is clear that implementing automation in reporting is beneficial, being faster than human effort, less costly, and leading to significantly fewer errors.

Among the conclusions of the study is that an employee can complete reporting four times faster with automation. This time saving allows the employee to handle reports for four different projects instead of just one. This freed-up time can be redirected to other critical areas such as innovation and customer service, where human input is essential. Finance teams will need to automate their low-value and time-consuming processes if they want to dedicate more time to offering the company value-adding insights and crucial decision-supporting assistance. As part of the changes the finance department must undergo to become a strategic business partner to the organisation, the two are closely intertwined.

Another conclusion is that the number of errors is up to 21 times lower with automation. In most cases, the remaining errors are due to incorrect data received from clients and the impossibility of correcting them either automatically or manually. Here, the human factor can intervene by contacting the client to correct the missing or erroneous information.

Moreover, the costs involved are significantly lower. Although a licence for an automation tool is quite expensive, the overall amount paid is reduced. By reducing errors, the need for resubmitting information—which incurs a fixed cost—is also reduced. Automating the reporting process eliminates the need for employees to manually check the correctness of data field by field, thus reducing human error and work time, and avoiding costly penalties for missing deadlines. Eliminating the costs of resubmission and avoiding fines leads to significant cost savings.

Technology is rapidly transforming business operations across nearly every function. It can significantly speed up processes, improve quality, and enable individuals to focus on areas requiring human involvement. While many finance functions have embraced substantial automation, financial reporting and technical accounting teams risk falling behind. This lag can lead to frustration and potentially harm the business.

Based on all the points presented, it is evident that automation in financial reporting brings substantial benefits and improvements. These tangible benefits underscore the increasing impact of automation and highlight that automation is a significant step towards sustainable success.

Therefore, it is worthwhile for companies to replace manual reporting with the use of a tool to automate the process. AnaCredit reporting process automation has measurable advantages in terms of increased compliance, improved accuracy, and time savings. Financial institutions can maximise their reporting operations and focus on fostering corporate growth and innovation by utilising automation, which streamlines procedures, reduces mistakes, and ensures regulatory compliance.

References

[1] S. Pougkas, "SAP S/4HANA Financial Accounting Certification Guide," Rheinwerk Publishing, 2017.

[2] SAP, "SAP Intelligent RPA Use Cases By Lines of Business (LoB): oCFO – Record to Report," https://www.sap.com/documents/2021/02/f6410932-d27d-0010-87a3-c30de2ffd8ff.html, 2021.

[3] KPMG, "Automation of financial reporting and technical accounting," https://assets.kpmg.com/content/dam/kpmg/uk/pdf/2019/09/automation-of-financial-reporting-and-technical-accounting.pdf, 2019.

[4] R. Half, "How Did Accenture Transform Lead-to-Cash Processes with Ready-toUse AI?," 2023.

[5] B. I. Dragomirescu O., "Revolutionising Finance: Insights on the impact of Automation," 2024.

[6] W. Durant, "Using Alteryx automation software to boost the efficiency of creating the net interest income note for company X's annual report," 2024.

[7] KPMG, "AI and Financial Reporting Survey – what are companies doing and where do you stand?," 2023. [Online]. Available: https://kpmg.com/us/en/articles/2023/ai-and-financial-reporting-survey.html.

[8] Deloitte, "Audit & Assurance," 2023. [Online]. Available: https://www.deloitte.com/uk/en/services/audit.html.

[9] GRI, "Four-in-five largest global companies report with GRI," 31 October 2022. [Online]. Available: https://www.globalreporting.org/news/news-center/four-in-five-largest-global-companies-report-with-gri/.

[10] E. Comission, "EU rules on financial information disclosed by companies.," 2023. [Online]. Available: https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/financial-reporting_en.

[11] KPMG, "Automation of financial reporting and technical accounting," 2019.

[12] M. a. Company, "The impact of AI on accounting practices: A review: Exploring how artificial intelligence is transforming traditional accounting methods and financial reporting," World Journal of Advanced Research and Reviews, 2024.

[13] M. Ashraf, "Does Automation Improve Financial Reporting? Evidence from Internal Controls," S&P Global - Market Intelligence, 2024.

[14] J. Gerring, What Is a Case Study and What Is It Good for?, Cambridge University Press, 2004.

[15] T. Gary, How to Do Your Case Study, Sage Publications Ltd., 2021.

[16] O. Hauet, "The AnaCredit regulation is in place—a reflection on data-driven reporting: What has been achieved by the banks and regulators, and what remains to be done?," Journal of Financial Compliance, 2019.

[17] V. D. R. B. Jean Marc Israel, "The Analytical Credit Dataset. A Magnifying Glass for Analysing Credit in the Euro Area," ECB Occasional Paper No. 187, 2017.

[18] S. C. Group, 2020.

[19] ECB, AnaCredit Reporting Manual Part I – General Methodology, 2019.

[20] D. C. Thun, "AnaCredit Gives Banks an Opportunity to Improve Data Management, but Challenges Remain," Analytics, Moody's, 2015.

[21] P. Brown, "International Financial Reporting Standards. What are the Benefits?," Financial Accounting and Equity Markets, 2013.

[22] O. Hauet, "The AnaCredit regulation is in place — a reflection on data-driven reporting: What has been achieved by the banks and regulators, and what remains to be done?," Journal of Financial Compliance, Volume 3, 2019.

[23] A. W. RALF EWERT, "Effects of Increasing Enforcement on Financial Reporting Quality and Audit Quality," Journal of Accounting Research, 2018.

[24] "Tableau," 2024. [Online]. Available: https://www.tableau.com.

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