



Improving Business Processes at mBank – Case Study on “Return Disposition Management” Process

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Abstract. The main objective of this article is to present a method for improving the business processes of a bank through an illustrative case study. The presented method enables financial institutions that operate in heavily regulated markets to combine a holistic view of business-process management (BPM) with a multi-faceted analysis of the effectiveness and risks of their implemented business processes as well as to implement selected improvements that are in accordance with the banks’ project management standards. This method combines elements of BPM and project management, which allow for a continuous analysis of the implementations of changing financial regulatory requirements and emerging opportunities (including technological ones) while prioritizing any implemented changes considering the regulator’s imposed obligations, risk mitigation, efficiency of changes, and employee development.

Keywords: business-process management (BPM), process improvement, BPM-implementation method

Mathematics Subject Classification: 91B99

JEL Classification: O31

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1. INTRODUCTION

As a financial institution, mBank’s primary goal is to meet the needs of its clients. The bank focuses its activities on the “client-centric” motto by creating financial products in response to market demand; these are tailored for retail and corporate clients, with particular attention being paid to regulatory obligations. In the realm of

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payment services, the main competitive arena is the race to reduce costs and improve the quality of customer service while leveraging emerging technological opportunities. The faster and more flexibly a payment service provider (like a bank) responds to changes and reduces unit costs, the greater its chances of outperforming its competition. These factors have led to the implementation of business-process management (BPM) – one of whose core principles is the continuous monitoring and improvement of one's business processes (Dumas et al., 2018; Szelągowski, 2019). To present the method that was adopted by the bank's operations division for BPM implementation, a process from the payment-services group was selected, given its importance to the bank's clients and its detailed and demanding regulatory obligations.

The goal of this article is to use this illustrative case study to present a method that was developed by the bank that allows for BPM ambidexterity (Helbin & Van Looy, 2019); it combines generic process improvements with the introductions of breakthrough innovations. The method's key steps include identifying BPs and building a process architecture, determining the nature of individual process groups, followed by a detailed multi-faceted analysis of selected BPs, including a SWOT analysis (strengths, weaknesses, opportunities, threats), added value, throughput capacity, cycle time, quality, and costs. Based on the results, specific problems in the process were diagnosed. In the next step, action proposals for process improvement were developed, and a model of the improved process was prepared. Before its implementation (following BPM management methodologies), the results of the analyses for the current process (As Is) and the improved process (To Be) were compared. Comparison of the As Is and the To Be processes allowed us to determine priorities, resource requirements, implementation costs and expected deadlines. It was also possible to indicate the expected results of implementing individual changes.

This method combined elements of BPM and project management, thus enabling a continuous analysis of how changing financial regulatory requirements are implemented and how technological opportunities are utilized while prioritizing changes with regard to regulatory obligations, risk mitigation, change effectiveness, and employee development in the bank.

2. METHODOLOGY

The aim of this article is to present the method for process improvement that was adopted by the bank's operations division using the example of the return-disposition-management process. The case-study method that was used in this article is descriptive in nature and enriched with the context of BPM implementation, providing the reader with detailed information that is necessary for understanding the presented process improvement and the specific results that are expected by the bank's management and employees (Hayes et al., 2015). In line with Davey's work (1991), this article presents not only improvements to a specific process but also the full context of BPM implementation and the construction of the bank's process architecture. It serves as a guideline for applying the process-improvement method to all of the processes in the Operations Division. Given the potential for applications

in other divisions of the bank (and in financial institutions generally), this case study is of great importance to both researchers and practitioners who focus on process improvement and optimization (van der Aalst et al., 2023; Mertens, 2014; Yin, 2009).

To build the process architecture, the description levels for the processes were classified based on Mahal's framework (2010) and the Process Classification Framework (PCF) model that was developed and updated by APQC (APQC, 2024; Auksztol & Chomuszek, 2012).

3. RELATED WORK

As a financial institution, mBank focuses its efforts on meeting customer needs by creating products in response to market demand. It caters to the specific needs of individual customer groups (retail, corporate) and pays close attention to the evolving regulatory environment. A wide range of financial products can be mentioned, but particularly important are those that are related to the storage of funds in various types of bank accounts and payment-transaction services.

mBank is on the path toward implementing business-process management. Currently, the bank operates as a functional organization with identified business processes. In some areas, the implementation is more advanced, and process or product owners have been identified for specific banking activities. Generally, the bank is evolving toward a process-based organization while maintaining its functional division.

The functional division stems from the responsibilities of the respective management areas:

- 1) General Division (audits, communication, marketing strategy, real estate management, occupational safety, organizational management);
- 2) Compliance, Legal, and HR Division;
- 3) Corporate and Investment Banking Division;
- 4) Retail Banking Division;
- 5) Operations and Information Technology Division;
- 6) Finance Division;
- 7) Risk-Management Division.

On the bank's business process map, the area of operational services falls under core processes (Fig. 1).

A bank's operational processes (Operational Services) are those activities that are essential for the day-to-day functioning of the bank and its customer service. These processes cover a wide range of activities, from cash management and transaction handling to credit and guarantee services (concluding with payments). At mBank, operational processes are conducted for all customer groups (i.e., retail, corporate, and institutional clients) as well as for other entities within the group and in cooperation with external outsourcing providers.

mBank carries out operational processes that are in accordance with legal requirements and market expectations; i.e., those of customers and other cooperating entities. At mBank, operational services are part of the operational-processes group, which is further divided into three main subgroups: sales services, after-sales services, and payment services.

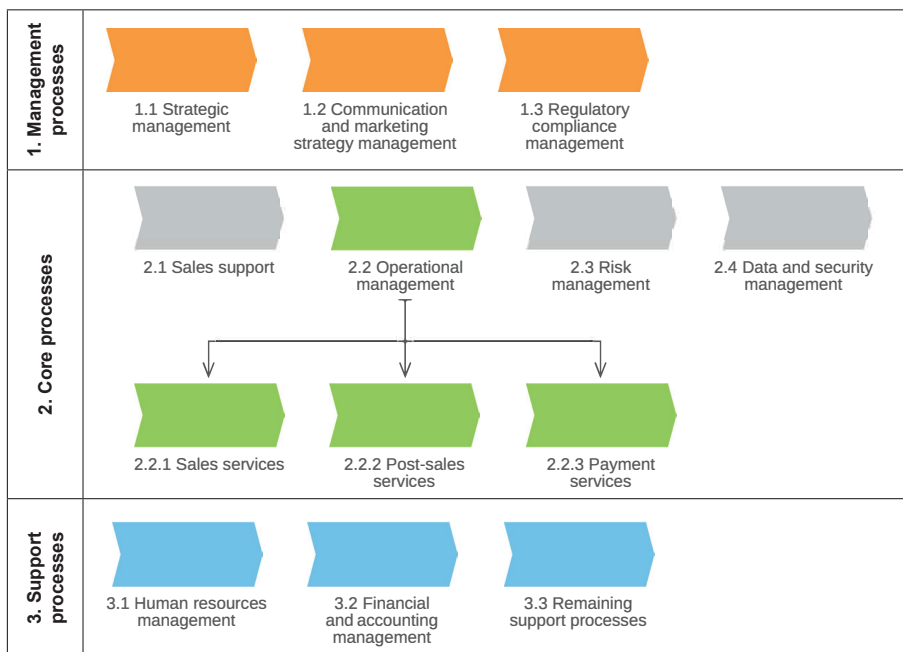


Fig. 1. *Business-process map of bank at level N according to A. Mahal's classification (Mahal, 2010)*

In mBank's operations, sales services primarily involve opening accounts for new retail and corporate clients and providing a broad range of new products (such as corporate loans). After-sales services include all activities that are related to the maintenance of existing products for current clients, such as handling any changes to a client's information or modifying any product terms. After-sales services also encompass the handling of inquiries, orders, complaints, and cooperation with government bodies. Payment services involve all operations that are related to managing funds, including executing transactions, managing bank accounts, transferring money, making electronic payments, and other services that facilitate the flow of funds. In the context of mBank, payment services may include managing payment accounts, executing SWIFT transfers, handling mobile payments, managing instant payment systems, and other modern payment solutions that enhance security in the payment-services market.

For each process level, the key performance indicators (KPIs) are defined. These can be financial or non-financial metrics that serve as measures of how well the organization is achieving its objectives. The most important KPIs in operational services are the accuracy and timeliness of process executions (quality level $\geq 98\%$) and annual efficiency improvement (effective time to process completion) (by 10%). Additionally, KPIs that are related to the levels of automated postings, customer satisfaction (NPS), and operational losses are also considered.

We must not forget the risks that are associated with operational services. Operational risk is considered to be one of the key risks in banking activities; it is

present in all of the processes in financial institutions, and the consequences of its materialization can be severe. Often, the materialization of operational risk directly translates into reputational risk, as it is publicly visible and widely commented on in the media. The significance of operational risk increases annually. An effective operational-risk-management system is one of the key success factors for an organization in the long term. Operational risks include legal risks, business continuity risks, IT risks, cyber threats, money laundering, sanction violations, fraud, and outsourcing risks.

4. IMPROVING RETURNS-DISPOSITION MANAGEMENT – CASE STUDY

In the presented illustrative case study, we focused on payment services, which is a group of level N-1 processes within operational services. Payment services play a crucial role in the functioning of the financial market, influencing its dynamics, security, and innovation. They form the foundation of financial liquidity for banks and the market, enabling fast and secure transactions; these are essential for the effective functioning of trade and investment. The introduction of new technologies in payment services (such as mobile payments and instant payment systems) accelerates the digital transformation of payment services.

All of these factors aim to increase competition and security in the payment-services market by introducing open banking requirements and strengthening consumer protections. These regulations promote transparency and market fairness, build trust in the financial system, and act as a key catalyst for change in shaping the financial market.

In Poland, conducting payment services requires compliance with licenses, permits, registrations, and financial supervision from the Polish Financial Supervision Authority (KNF). It is regulated by the following legal acts:

- Ustawa z dnia 19 sierpnia 2011 r. o usługach płatniczych (Dz.U. 2011 nr 199 poz. 1175);
- Uchwała Nr 584/2015 komisji Nadzoru Finansowego z dnia 17 listopada 2015 r. w sprawie wydania Rekomendacji dotyczącej bezpieczeństwa transakcji płatniczych wykonywanych w internecie przez banki, krajowe instytucje płatnicze, krajowe instytucje pieniądza elektronicznego i spółdzielcze kasy oszczędnościowo-kredytowe;
- Dyrektywa Parlamentu Europejskiego i Rady (UE) 2015/2366 z dnia 25 listopada 2015 r. w sprawie usług płatniczych w ramach rynku wewnętrznego, (Dz.U.UE.L.2015.337.35).

Covering various methods of transferring funds, payment services are associated with many risks that may affect both service providers and their users. The main categories of operational risks in payment services are cyber risks, legal risks, and reputational risks.

An analysis of the nature of the business processes in the payment-services group showed that these processes were fully predictable, with occasional ad hoc exceptions (Szelański et al., 2024); they required specialized knowledge for their proper execution. Therefore, investments in maintaining up-to-date knowledge repositories, knowledge exchange, and the digitization of the processes using intelligent solutions were essential.

Within payment services, we can distinguish three subprocesses:

- interbank settlements – related to high-value payments that ensure bank's liquidity;
- customer settlements – related to payments between businesses or individuals as part of their operations or household management;
- collateral and securities settlements – related to payments that are involved in managing financial instruments and their collateral.

Each of these processes requires the maintenance of high standards of service in terms of quality, timeliness, and data security, as a bank (being a public trust institution) must meet high standards in all of these areas. This paper presents the analysis and improvement proposal for the return-disposition-management process, which is one of the four subprocesses within the mass-payment-management process (as shown in Figure 2).

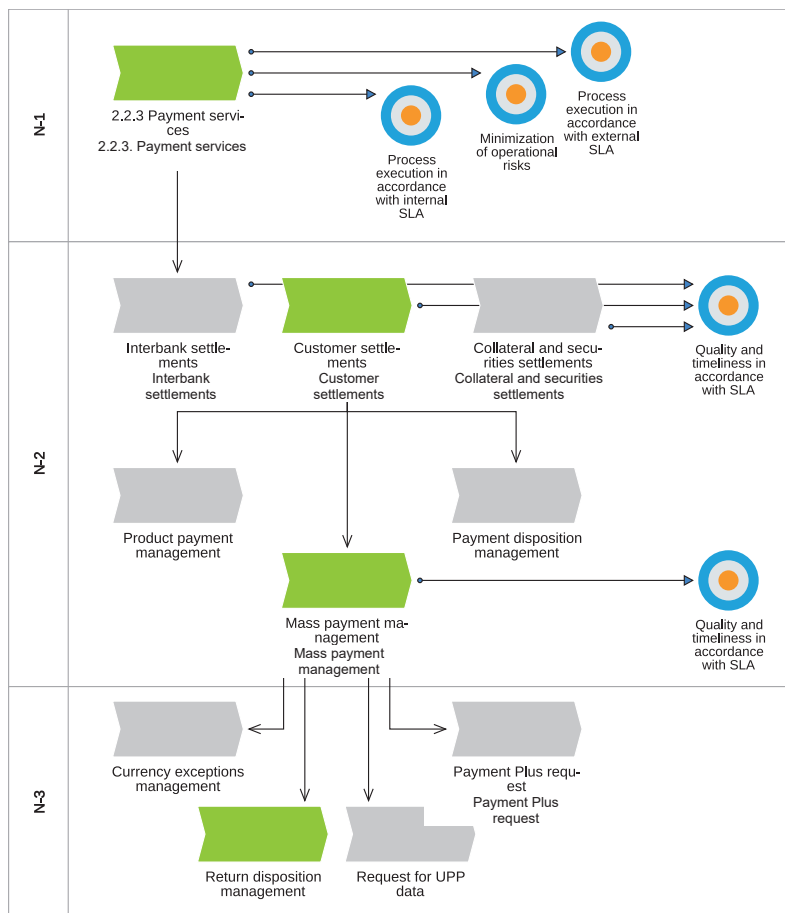


Fig. 2. Part of bank's business-process architecture for payment services group

4.1. Situation faced

Despite the safeguards that are offered by banks, erroneously transferred funds may end up in the account of an unknown person. The primary claim that a careless bank account holder has is to recover the improperly transferred funds from the person who received them as a result of the mistake. To simplify and expedite the procedures that are related to the returns of mistakenly transferred funds, on April 27, 2018 the President of Poland signed Ustawa z dnia 22 marca 2018 r. o zmianie ustawy o usługach płatniczych oraz niektórych innych ustaw (Dz.U. 2018 poz. 864) which is the amendment to Ustawa z dnia 19 sierpnia 2011 r. o usługach płatniczych (Dz.U. 2011 nr 199 poz. 1175). According to the provisions of this law, banks are obligated to assist clients in such situations. The law explicitly requires banks to take actions to recover the amounts from incorrectly executed transactions.

The act specifies the following procedure in the event of an erroneous transfer:

1. client reports to their bank that transfer was made incorrectly;
2. within three days of receiving report, bank notifies transfer recipient of transaction error (if same bank holds recipient's account) or requests recipient's bank to take action to recover funds;
3. transfer recipient should return funds within one month (for which bank cannot charge any fees);
4. if above actions do not yield expected result within one month, bank is to provide its client with recipient's details (name, surname, and address) within three days;
5. after receiving recipient's details, client may take legal action to recover funds.

The return-disposition-management process deals with requests from payment initiators to return funds from incorrectly executed transfers in accordance with the provisions of Ustawa z dnia 19 sierpnia 2011 r. o usługach płatniczych (Dz.U. 2011 nr 199 poz. 1175). Articles 143 a–c and Ustawa z dnia 5 sierpnia 2015 r. o rozpatrywaniu reklamacji przez podmioty rynku finansowego i o Rzeczniku Finansowym (Dz.U. z 2022 r. poz. 187).

The detailed process model for return-disposition management is presented in Figure 3 (on the interleaf).

Through the analyses that were conducted (SWOT, added value, throughput capacity, cycle time, efficiency) and the indicators that were obtained (cycle time efficiency [CTE], and total cycle time [CT]), the following problems were diagnosed in the “return disposition management” process:

- long processing times for return requests (manual registration handling, analysis of request types, refund processing, stage control, and generation and sending of letters to payment recipient);
- errors in processing due to manual handling of requests, mistakes, and incorrect data entry;
- insufficient process transparency due to lack of control reports at various stages of processing, thus complicating backlog management;
- problems with remote work (home office) due to need for paper handling, manual document signing, and letter mailing;
- unnecessary burdens on clerical staff.

The identified problems create the following risks:

- delays in processing return requests due to increasing volumes and static staffing levels – affecting bank’s ability to meet regulatory obligations;
- extended process times (repeated stages) due to high error rate related to manual data entry – increasing operational costs and exposing bank to regulatory risks and post-audit recommendations;
- increased frustration and decreased work efficiency due to excessive time spent on manual tasks – leading to low employee satisfaction;
- difficulty implementing automation, innovation, and adapting to changing requirements due to insufficient IT system integration – resulting in inefficient system usage.

4.2. Actions taken

To address or minimize the identified problems, improve the process efficiency, and mitigate any risks that are associated with the “return disposition management” process, an improved process model (To Be) was developed. The proposed “To Be” process model contained numerous enhancements as compared to the current model (As Is), including new inter-system integrations and the eliminations of redundant steps and decision gateways.

To improve the quality and efficiency of the process, the following improvements were proposed (Fig. 4 on the interleaf):

- a) Elimination of manual steps – automation of the handling of requests in real-time and the inclusion of corporate clients in the automatic correspondence stream with retail clients.
- b) Reduction of redundant decisions – automation of daily verification of refunds by the beneficiary of the erroneous payment and the eliminations of feedback loops and process reversals.
- c) Elimination of paper correspondence – full transition to electronic communication with the client within the process.
- d) Automation of manual steps with no added value – registration, status marking, printing, verification, and client notification.
- e) Automation of manual steps with business and non-business added value – request processing, verifications, rejection notification, refund execution.

Additionally, new steps were proposed to mitigate the risks that were associated with the “return disposition management” process:

- a) Control over the completeness and timeliness of request handling – the monitoring of all returns requests in order to eliminate the legal risk of failing to process a request within the three-business-day deadline.
- b) Monitoring of the refunded amount’s compliance with the return request – sending a request for correcting the amount in order to improve the quality of service and client satisfaction.

4.3. Achieved Results

Despite the automation that was introduced into the process, both the cycle-time-efficiency index (CTE) (As-Is – 0.0051 => To-Be – 0.0046) and the throughput-capacity index (As-Is – 0.51% => To-Be – 0.46%) did not improve significantly. This is because the legislated long waiting period (30 days) for the response from the recipient of the erroneously transferred funds resulted in little overall change to the ratio of the total cycle time to the effective cycle time (even though the implemented changes reduced various times (waiting and actual work times)).

The main elements that positively impacted the cost reduction and increased process efficiency were as follows:

- reduction in waiting times in two steps from 30 hours (registration step and processing step) to 2 hours (request receipt step);
- elimination of manual work (full automation) in tasks with no added value.

The To Be process significantly improved the As Is process in four key metrics:

- Time – an eight-fold reduction in the effective cycle time (from 0.24 hours to 0.03 hours), and a reduction in the total cycle time (from 46.82 hours to 6.21 hour).
- Cost – an eight-fold reduction in the process-execution costs, resulting in annual savings of PLN 317,520 based on an average hourly rate of PLN 60.00 and 25,200 iterations per year.
- Process quality – almost 3-times-fewer manual steps (from 19 to 7), with the elimination of 3 unnecessary steps.
- Required human resources – an almost eight-fold reduction in full-time-equivalent (FTE) involvement in the process (from 3.1 to 0.4 FTE).

It is worth noting that the above improvements could also be successfully applied to the related process (return-disposition management of standard return requests) under the presidential act, which differed primarily in the request-processing time (from 3 days to 30 days). Assuming a similar effective cycle time, additional costs and/or resource savings could be achieved. Moreover, many components that were used in the process improvement could be leveraged for improvements in the other operational-process groups. In particular, strong integration with the Ognivo system (operated by the National Clearing House – KIR) using web services can enable the automation of many processes that occur within the bank based on any requests/inquiries that are received or sent via this system. These requests include bank account inquiries for debtors, searches for deceased persons' accounts, requests for providing details of erroneous payment recipients, and complaints (among others).

4.4. Lessons learned

The use of the BPM methodology (including the results of various business-process analyses) allowed for a comprehensive look at the current efficiency and potential improvements from multiple perspectives.

The elimination or limitation of the identified problems led to the following:

- significant reductions in service times, increased operational productivity, and reduced costs (including overtime costs) due to automation and improved information flow within process;
- improved data quality by minimizing manual processing of requests – particularly in area of settlement and accounting data; this increased reliability of data, which was crucial for managerial decision-making;
- increased transparency of service by automating monitoring of requests at every stage of processing, thus mitigating regulatory and reputational risks;
- increased employee satisfaction, as proposed process improvements reduced their workloads, allowing for more time for personal development and focuses on higher-value tasks;
- maintaining good customer relationships through faster and more efficient handling of return requests.

The proposed changes not only brought about clear cost or staff savings but also significantly accelerated the process's execution. At the same time, the quality of the process improved by mitigating regulatory and reputational risks, thus making the process safer for the bank.

5. CONCLUSIONS

The primary motivation for this project was to improve the operational processes in the area of payment services at mBank, with the goal of eliminating the overtime work and regulatory risks that are associated with missing statutory deadlines for processing requests. The analysis was conducted from three perspectives: business-management, technical, and human-capital management. From a business-management perspective, the analysis took service costs into account, including current employee involvement and the time that was taken to complete individual tasks within the process. The main goal that was set was to eliminate manual work, thereby reducing the number of errors and limiting regulatory risks.

From a technical perspective, the systems that were currently in use at the bank were analyzed to improve their integration and make better use of its existing technologies.

The aspect of managing employees in the face of process optimizations was also significant. It is important to remember that not all employees approach change with enthusiasm; some may fear the unknown, changes in their duties, or the need to learn new processes. Therefore, the positive aspects in this area were emphasized, such as improving skills, training, allowing for self-development, promoting a more friendly work environment, and moving away from repetitive tasks in favor of more-complex and satisfying ones.

The process analyses allowed the bank to leverage its strengths in order to minimize threats, take advantage of market opportunities, and manage its weaknesses consciously. The automation of individual tasks, the elimination of unnecessary steps, and the integration of previously unconnected systems that were used in the process will also allow for smoother and much faster future changes, which are inevitable in the banking business.

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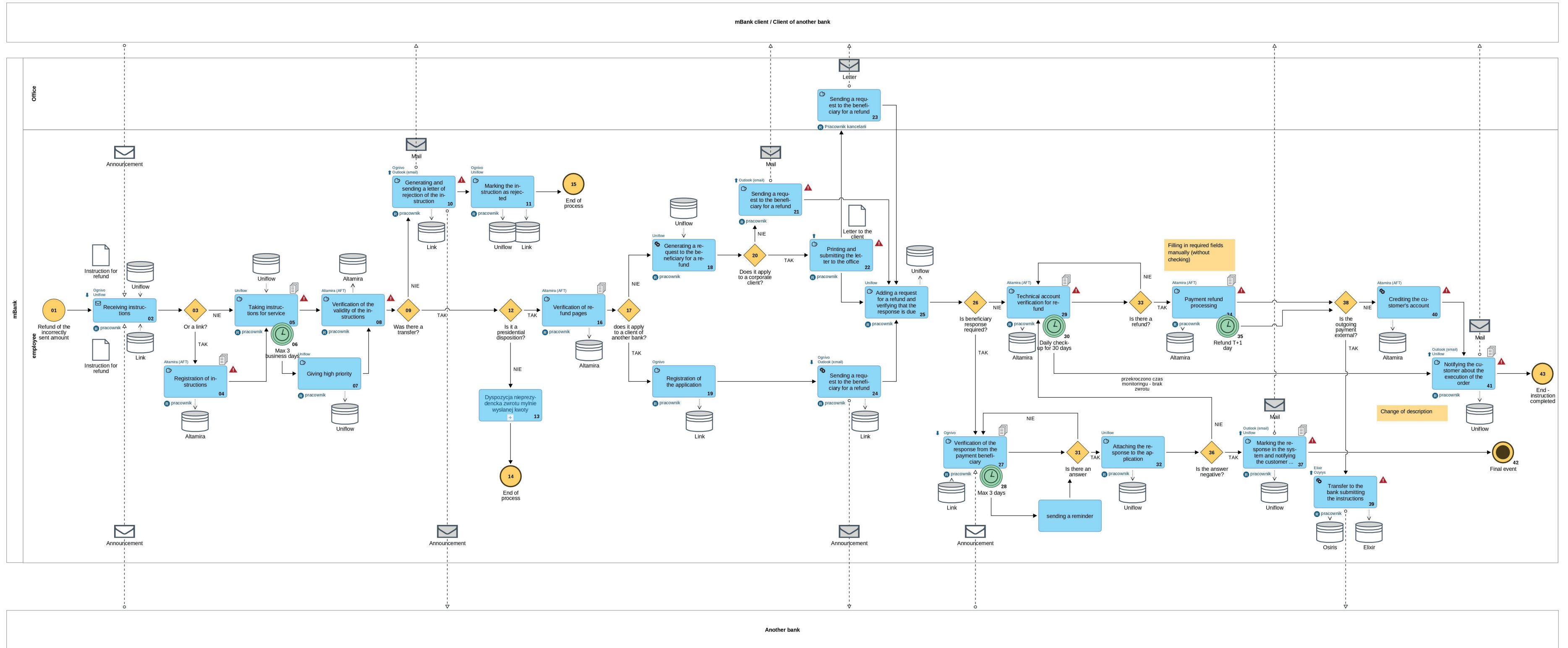


Fig. 3. Model of present return-disposition-management process within framework presidential act

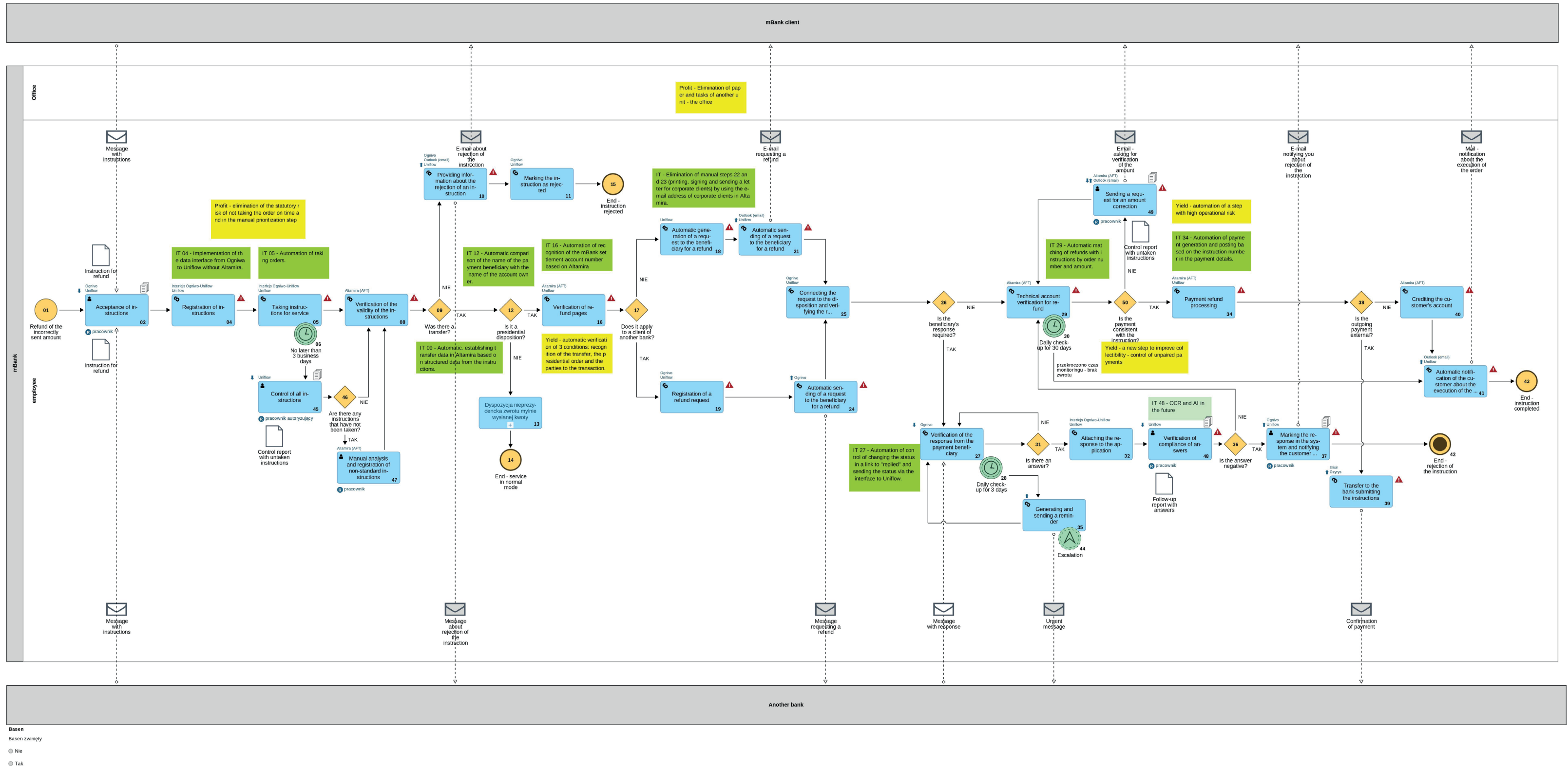


Fig. 4. Model of improved return-disposition-management process under presidential act