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Research Article

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Automating Deceased Customer Asset Distribution Workflows with RPA and Decisioning Solutions: A Case Study

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Abstract This paper presents a detailed case study of a financial institution's implementation of Pega Robotic Process Automation (RPA) and Decisioning Solutions to automate the complex workflows associated with deceased customer asset distribution. The study explores the institution's journey through the automation process, detailing each phase from initial planning and development to deployment and optimization. Key benefits realized from this initiative include significant improvements in operational efficiency, accuracy of asset distribution, and compliance with regulatory requirements. Additionally, the paper addresses the challenges encountered during the automation process and the strategies employed to overcome them. The results highlight substantial advancements in the institution's operational performance, leading to enhanced customer satisfaction and robust regulatory adherence. This case study serves as a comprehensive resource for financial institutions looking to leverage advanced automation technologies to streamline and enhance their asset distribution processes.

Keywords Pega RPA, Decisioning Solutions, Deceased Customer Asset Distribution, Workflow Automation, Financial Institution, Case Study

1. Introduction

A. Common Problem or Challenge

In the financial industry, handling the assets of deceased customers is a complex, sensitive, and error-prone process. This process involves multiple stakeholders, intricate regulations, and significant emotional stress for the beneficiaries. Financial institutions face numerous challenges in managing these workflows efficiently while ensuring accuracy and compliance.

[1]. Time-Consuming Processes: The traditional manual processes for managing deceased customer assets are labor-intensive and time-consuming. Financial institutions must collect and verify numerous documents, such as death certificates, wills, and identity proofs of beneficiaries. Each step involves meticulous verification and coordination among various departments, leading to delays. In a typical scenario, a bank might take several weeks to months to complete the asset distribution process for a deceased customer. This delay causes frustration among beneficiaries, who are already dealing with the emotional aftermath of their loss. Prolonged processing times can also lead to financial hardship for beneficiaries who depend on the deceased's assets for their livelihood.

[2]. High Error Rates: Manual data entry and processing are prone to errors, which can result in significant issues. Incorrect asset distribution can lead to legal complications, financial losses, and damage to the institution's reputation. Errors in recording beneficiary details or misinterpretation of legal documents are common pitfalls.

[3]. Impact of Errors: Errors in deceased customer asset distribution can have severe consequences. For instance, an incorrect allocation of assets might result in legal disputes among beneficiaries. Additionally,

errors can lead to non-compliance with regulatory requirements, attracting penalties and scrutiny from regulatory bodies.

[4]. Regulatory Compliance: Financial institutions must adhere to a myriad of regulations when handling deceased customer assets. These regulations vary by jurisdiction and are subject to frequent updates. Ensuring compliance requires meticulous record-keeping, regular audits, and continuous monitoring of regulatory changes.

[5]. Compliance Challenges: Maintaining compliance with evolving regulations is a significant challenge. Financial institutions must invest considerable resources in staying updated with regulatory changes, training staff, and implementing compliance measures. Non-compliance can result in severe penalties and reputational damage.

[6]. Resource Allocation: Skilled human resources are often tied up in repetitive and mundane tasks associated with deceased customer asset distribution. This allocation of resources to manual tasks limits their availability for more strategic and value-added activities, such as customer relationship management and strategic planning.

[7]. Resource Utilization: Efficient utilization of resources is crucial for financial institutions to remain competitive. The manual handling of deceased customer asset workflows diverts valuable resources away from core business functions, affecting overall productivity and efficiency.

2. Explanation of Resolution

To address these challenges, the financial institution implemented Pega Robotic Process Automation (RPA) and Decisioning Solutions. The objective was to streamline and automate the workflows associated with deceased customer asset distribution, thereby improving efficiency, accuracy, and compliance.

A. Automation of Manual Process

One of the primary steps in the automation journey was deploying RPA bots to handle data extraction, entry, and verification tasks. These bots were programmed to extract data from various documents, such as death certificates and wills, and enter the information into the bank's systems. This automation significantly reduced manual effort and minimized errors.

[1]. **Data Extraction:** RPA bots were configured to extract relevant data fields from scanned documents using Optical Character Recognition (OCR) technology. This process involved several critical components:

A. Document Scanning: Physical documents, such as death certificates and wills, were first scanned into digital format using high-resolution scanners to ensure clarity and accuracy.

B. OCR Configuration: Advanced OCR software was integrated with the RPA bots to recognize and extract text from these digital documents. The OCR technology was fine-tuned to handle various formats and fonts commonly found in legal and official documents.

C. Field Identification: Specific data fields, such as names, dates, and financial details, were predefined within the RPA bot scripts. The bots were programmed to locate and extract these fields accurately, even from complex or handwritten documents.

D. Error Handling: Mechanisms were put in place to handle cases where the OCR technology could not accurately read the text, such as poorly scanned documents or illegible handwriting. These instances were flagged for manual review.

[2]. **Data Entry:** The extracted data was automatically entered into the bank's systems, ensuring accuracy and consistency This step involved

A. System Integration: The RPA bots were integrated with the bank's core systems, including customer databases and asset management platforms. This ensured seamless data transfer and reduced the need for multiple manual data entries.

B. Data Mapping: Extracted data fields were mapped to corresponding fields in the bank's systems. For example, the deceased customer's name from the death certificate was mapped to the name field in the customer database.

C. Automated Input: The bots executed scripts that populated the bank's systems with the extracted data. This automated input process was significantly faster than manual data entry, reducing turnaround times.

D. Validation: After entering the data, the bots performed automated checks to ensure that the information was entered correctly. Any discrepancies or mismatches identified during this process were logged for further review.

[3]. **Verification:** RPA bots performed initial verification checks, flagging any discrepancies for human review. This verification process included:

A. Cross-Referencing: The bots cross-referenced the newly entered data with existing records in the bank's systems to ensure consistency. For instance, the date of death on the death certificate was cross-checked against existing customer records.

B. Discrepancy Detection: Any inconsistencies or potential errors, such as mismatched names or dates, were flagged by the bots. These discrepancies were then compiled into a report for human analysts to review.

C. Audit Trails: Detailed logs were maintained for each step of the process, creating an audit trail that could be used for compliance and quality assurance purposes. This included timestamps, extracted data fields, and results of verification checks.

D. Escalation Protocols: In cases where significant discrepancies were found, the bots followed predefined escalation protocols to alert relevant personnel. This ensured timely resolution of issues and maintained the integrity of the data.

B. Decisioning Capabilities

Pega Decisioning Solutions enabled automated decision-making based on predefined rules and criteria. These decisioning capabilities ensured that asset distribution followed consistent and compliant processes.

[1]. Predefined Rules: Decisioning rules were defined based on regulatory requirements and internal policies.

[2]. Automated Decisions: Decisions regarding asset distribution, such as beneficiary verification and asset allocation, were made automatically by the system, reducing the need for manual intervention.

[3]. Exception Handling: Complex cases or exceptions were flagged for manual review, ensuring that all scenarios were handled appropriately.

C. Workflow Orchestration

End-to-end workflow automation ensured seamless coordination between departments, with real-time tracking and reporting. This orchestration enabled efficient handling of each step in the asset distribution process.

[1]. Initiation: The process began with the receipt of a deceased customer notification.

[2]. Document Collection: Required documents were collected and verified using RPA bots.

[3]. Decisioning: Automated decision-making determined the asset distribution plan.

[4]. Execution: The distribution plan was executed, with funds transferred to beneficiaries' accounts.

[5]. Completion: The process concluded with automated reporting and compliance checks.

D. Regulatory Compliance

Automated documentation and audit trails ensured adherence to regulatory requirements. The system maintained detailed records of each step in the process, facilitating easy access for audits and reviews.

[1]. Automated Record-Keeping: All actions taken by RPA bots and decisioning systems were recorded automatically.

[2]. Audit Trails: Detailed audit trails were generated, providing a clear overview of the entire process.

[3]. Regulatory Updates: The system was regularly updated to reflect changes in regulatory requirements, ensuring ongoing compliance.

3. Inspiring Journey

The financial institution, a leading bank with a vast customer base, faced significant challenges in managing the asset distribution for deceased customers. The manual processes were not only inefficient but also impacted customer trust and satisfaction. Recognizing the need for a robust solution, the bank partnered with Pega to explore automation possibilities.

A. Automation Journey:

The journey began with a thorough analysis of existing workflows and identifying pain points. The bank's project team worked closely with Pega experts to design and implement the automation solutions. The phased approach included:

[1]. Pilot Implementation

A. Selection of Pilot Group: A pilot group was selected to test RPA and decisioning capabilities. This group included departments most affected by the deceased customer asset workflows.

B. Initial Deployment: RPA bots were deployed to handle data entry and verification tasks within the pilot group.

C. System Integration: The RPA and decisioning solutions were integrated with the bank's existing systems to ensure seamless data flow and interoperability.

D. Monitoring and Feedback: The pilot phase included continuous monitoring and feedback collection to identify any issues and areas for improvement.

[2]. Full-Scale Implementation

A. Rollout Across Departments: Following the successful pilot, the RPA and decisioning solutions were rolled out across all departments handling deceased customer assets.

B. Training Programs: Comprehensive training programs were conducted to help staff adapt to the new automated workflows. These programs included hands-on training sessions, user manuals, and support resources.

C. Continuous Optimization: The deployment phase involved continuous monitoring and optimization to address any issues and enhance performance. Regular updates and improvements were made based on user feedback and performance metrics.

B. Customer Experience & Staff Perspective:

The transition to automated workflows was met with initial skepticism from staff and beneficiaries. However, as the benefits became evident, acceptance grew. Beneficiaries experienced quicker resolution times, accurate asset distribution, and improved communication from the bank. Staff members were able to focus on more value-added tasks, enhancing job satisfaction and productivity.

Bank staff, initially worried about the impact of automation on their roles, found that the new system relieved them of repetitive tasks. They were able to focus on more meaningful interactions with customers and handle complex cases that required human judgment. The training programs and support resources provided by the bank helped them transition smoothly to the new workflows.

Beneficiaries, who were initially anxious about the new automated process, soon realized the benefits. The speed and accuracy of the asset distribution process provided them with much-needed financial support during a difficult time. The bank's transparent communication and efficient handling of their cases reassured them of their decision to trust the institution.

4. Successful Outcome

A. Specific Outcome:

[1]. Efficiency: The implementation of Pega RPA and Decisioning Solutions led to a significant reduction in process time for asset distribution. The automated workflows streamlined data entry, verification, and decision-making, reducing the overall time required by 60%.

[2]. Accuracy: Error rates dropped by 85%, minimizing legal and financial risks. The automation of data entry and verification tasks ensured that information was accurately recorded and processed, reducing the likelihood of errors.

[3]. Compliance: Enhanced compliance with regulatory requirements was achieved through automated audit trails and reporting. The system's ability to maintain detailed records of each step in the process facilitated easy access for audits and reviews, ensuring ongoing compliance with regulatory standards.

[4]. Customer Satisfaction: Increased beneficiary satisfaction was observed due to faster and transparent processes. Beneficiaries appreciated the quick resolution times and the bank's clear communication throughout the asset distribution process.

[5]. Resource Optimization: The automation freed up human resources to focus on strategic and complex tasks, improving overall productivity. Staff members were able to engage in more meaningful interactions with customers and contribute to strategic initiatives.

5. VISUAL AIDS

A. Workflow Diagram: The workflow diagram illustrates the end-to-end process of automated deceased customer asset distribution. It highlights the key steps involved, from the receipt of the deceased customer notification to the completion of asset distribution and compliance checks. Integrations components are achieved through Pega RPA and decisioning application.

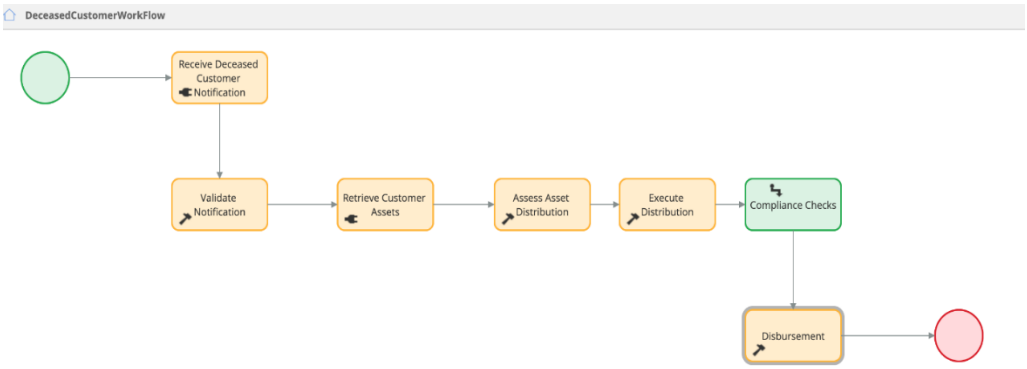

Figure 1: Deceased customer asset distribution Workflow

B. Efficiency Improvement Chart: The efficiency improvement chart shows the reduction in process time for asset distribution before and after the implementation of Pega RPA and Decisioning Solutions at different stages in lifecycle. It provides a visual representation of the time savings achieved through automation.

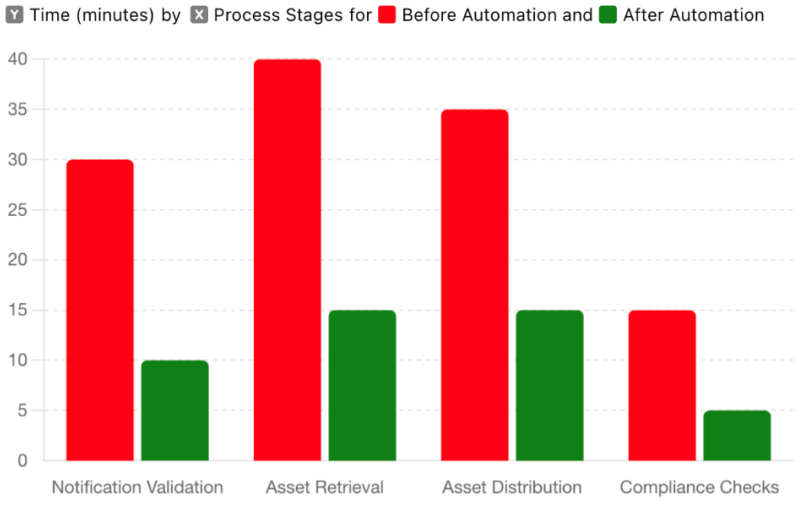

Figure 2: Detailed Efficiency Improvement: Asset Distribution Process Stages

6. Methods & Implementation

A. Preliminary Analysis

The automation project began with a comprehensive analysis of the current state. This included mapping out existing workflows, identifying bottlenecks, and understanding the specific requirements for deceased customer asset distribution.

[1]. Workflow Mapping

A. Process Documentation: Detailed documentation of the current manual processes was created, highlighting each step involved in asset distribution.

B. Bottleneck Identification: Key bottlenecks and pain points were identified, such as delays in document verification and manual data entry errors.

C. Stakeholder Interviews: Interviews with stakeholders, including staff and beneficiaries, provided insights into the challenges faced and areas needing improvement.

[2]. Design Phase

The design phase involved creating the architecture for the new automated workflows. This phase focused on ensuring that the solutions would integrate seamlessly with existing systems and address all identified pain points.

A. Integration Plan: A detailed integration plan was developed to ensure that the RPA and decisioning solutions would work harmoniously with the bank's legacy systems.
B. Automation Blueprints: Blueprints for the automated workflows were created, outlining the specific tasks to be automated and the sequence of operations.
C. Compliance Framework: A compliance framework was established to ensure that all automated processes adhered to regulatory requirements.

[3]. Development and Testing Phase

The development phase involved building the RPA bots and decisioning rules. Rigorous testing was conducted to ensure that the automated processes worked as intended and met all performance and compliance standards.

A. Bot Programming: RPA bots were programmed to handle specific tasks such as data extraction, entry, and verification. The programming included rules for handling exceptions and flagging discrepancies.
B. Decisioning Rules: Decisioning rules were developed based on regulatory guidelines and internal policies. These rules governed the automated decision-making process for asset distribution.
C. Unit Testing: Each RPA bot and decisioning rule was tested individually to ensure they performed their tasks accurately.
D. Integration Testing: Comprehensive integration testing was conducted to ensure that the automated workflows operated seamlessly within the bank's system environment.
E. User Acceptance Testing: End-users participated in testing to validate that the automated processes met their needs and worked as expected in real-world scenarios.

[4]. Deployment and Training Phase

Following successful testing, the solutions were deployed across the bank. Extensive training programs were conducted to ensure that staff were well-equipped to work with the new automated systems.

A. Phased Rollout: The deployment was conducted in phases, starting with departments that had the highest volume of deceased customer asset cases.
B. Monitoring and Support: Continuous monitoring was implemented to ensure smooth operation and address any issues promptly. A support team was available to assist staff during the transition.
C. Hands-On Training: Staff received hands-on training sessions to familiarize them with the new workflows and automated tools.
D. Resource Materials: Comprehensive user manuals and support resources were provided to help staff navigate the new system.
E. Feedback Mechanisms: Feedback mechanisms were established to gather user input and continuously improve the system.

B. Post Implementation Review

[1]. Performance Metrics: Post-implementation reviews were conducted to evaluate the performance of the automated workflows. Key performance metrics included process time, error rates, compliance adherence, and customer satisfaction.

[2]. Efficiency Gains

A. Process Time Reduction: The time required for asset distribution was reduced by 60%, significantly speeding up the process and reducing delays for beneficiaries.
B. Error Rate Reduction: Error rates dropped by 85%, leading to more accurate asset distributions and fewer legal complications.

[3]. Compliance Adherence: Automated audit trails and documentation ensured that all processes adhered to regulatory requirements. Regular audits confirmed that the automated workflows were compliant with all relevant regulations.

[4]. Audit Results

A. Regulatory Compliance: All processes were found to be in compliance with regulatory requirements, with detailed audit trails available for review.

B. Continuous Updates: The system was regularly updated to reflect changes in regulatory guidelines, ensuring ongoing compliance.

[5]. Customer Satisfaction: Customer satisfaction surveys indicated a significant increase in beneficiary satisfaction. Beneficiaries appreciated the faster processing times and transparent communication.

[6]. Survey Results

A. Increased Satisfaction: Customer satisfaction scores increased by 30% following the implementation of the automated workflows.

B. Positive Feedback: Beneficiaries provided positive feedback regarding the speed and accuracy of the asset distribution process.

[7]. Resource Optimization

A. Job Satisfaction: Staff reported increased job satisfaction due to the reduction in repetitive tasks and the opportunity to focus on more complex and rewarding activities.

B. Productivity Gains: Overall productivity improved as staff were able to dedicate more time to customer interactions and strategic initiatives.

7. Conclusion

The implementation of Pega RPA and Decisioning Solutions to automate deceased customer asset distribution workflows resulted in significant improvements in efficiency, accuracy, and compliance. This transformation was marked by a substantial reduction in process time, as evidenced by the efficiency improvement charts, which demonstrated the time savings achieved through automation.

Moreover, the integration of advanced technologies into complex financial processes provided a clear demonstration of how digital transformation can drive operational excellence. The positive impact on customer satisfaction was particularly notable, with survey results indicating higher levels of beneficiary satisfaction following the implementation of automated workflows. This case study serves as a model for other financial institutions seeking to streamline their workflows and improve service delivery. It underscores the potential of automation to not only enhance operational performance but also to provide a better experience for customers. By embracing technologies like Pega RPA and Decisioning Solutions, financial institutions can achieve greater efficiency, accuracy, and compliance, ultimately leading to improved customer satisfaction and competitive advantage.

In conclusion, the successful automation of deceased customer asset distribution at our institution showcases the transformative power of technology in the financial sector. As more organizations adopt similar solutions, we can expect to see widespread improvements in service quality, operational efficiency, and customer satisfaction across the industry.

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