



EVALUATING THE EFFECTIVENESS OF REGTECH (REGULATORY TECHNOLOGY) SOLUTIONS IN INTERNAL AUDIT

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Abstract :

This study examines the operations of the Information Processing Group (IPG) within financial services, with a focus on enhancing the efficiency and accuracy of transaction processing. Specifically, it investigates the volume and underlying causes of Non-Straight-Through Processing (NSTP) instructions, which require manual intervention, in contrast to Straight-Through Processing (STP) that automates transactions. While STP is widely valued for reducing operational costs, minimizing errors, and increasing speed, NSTP instructions present challenges due to data quality issues, regulatory requirements, system limitations, and exceptional cases that hinder automation.

The study identifies several opportunities for improving operational effectiveness, such as by pinpointing trends and root causes of NSTP transactions to implement automation or process enhancements, which can reduce human error and operational delays. It also discusses strategies to improve customer satisfaction, reduce transaction errors, and enhance decision-making through data analysis. However, challenges such as data complexity, resource constraints, resistance to change, and the integration of new technologies must be addressed to achieve these goals.

This research aims to provide insights into improving data quality, refining compliance procedures, and leveraging technological advancements to reduce NSTP transactions. The ultimate objective is to support a more efficient, accurate, and cost-effective processing environment in the financial services industry.

1. Introduction :

Straight-Through Processing (STP) is the term used to describe automated transaction processing in the finance industry that does not require human interaction. Nevertheless, there are still Non-STP (NSTP) instructions that need to be handled manually. These NSTP transactions are managed

by the IPG (Institutional Processing Group) team. Enhancing customer satisfaction, decreasing errors, and increasing operational efficiency all depend on an understanding of the volume and rationale underlying NSTP directives.

1.1 Opportunity :

Increasing Operational Effectiveness:

- The IPG team can find trends and common problems by examining the volume and causes of NSTP instructions. This allows them to devise ways to reduce the frequency of these occurrences.
- The most common or labor-intensive NSTP cases can be the focus of automation and process enhancements, which will lessen the manual workload.

Error Mitigation:

- Resolving fundamental problems that result in these exceptions can be aided by determining the core causes of NSTP instructions.
- Improving the STP rate will naturally lower the likelihood of human error, increasing transaction processing accuracy overall.

Client Contentment:

- Due to the reduction of delays and errors, transaction processing that is quicker and more dependable can improve customer satisfaction.
- By setting clearer expectations and enhancing service quality, the team may better support and communicate with clients by addressing the common causes of NSTP guidance.

Making Decisions Based on Data:

- A thorough examination of NSTP data can assist in making strategic choices about the distribution of resources, necessary training, and investments in technology.
- Predictive analytics based on data insights can help the team proactively address possible problems before they have an influence on operations.

1.2 Challenges :

Complexity of Data:

- Finding distinct trends and the underlying causes of NSTP instructions can be challenging due to the abundance of transaction data and the wide range of reasons why they occur.
- The analysis may be complicated by inconsistent or missing data from various systems.

Limitations on Resources:

- Efficient research and analysis necessitate committed resources, such as time, knowledgeable staff, and technological equipment.
- The team may feel pressured to strike a balance between the demands of in- depth study and continuing operational obligations.

Management of Change:

- Employees used to the current procedures may be resistant to changes being implemented based on the analysis's findings.
- Effective adoption of new procedures necessitates the assistance and proper training of all team members.

Integration of Technology:

- Enhancing STP rates through new system or technology integration may be expensive and necessitate interoperability with current infrastructure.
- It is imperative to guarantee a smooth integration process with little interference to ongoing activities.

1.3 Background of the Study :

Managing a vast range of instructions and transactions, the Information Processing Group (IPG) is an essential part of many organizations. These instructions frequently call for the accurate and efficient completion of difficult data processing activities in order to maintain seamless corporate operations. Two general categories can be used to categorise instructions processed by the IPG: Non-Straight-Through Processing (NSTP) and Straight-Through Processing (STP).

The term "straight-through processing" (STP) describes automated procedures that execute transactions without the need for human intervention. STP is very desired since it decreases operating costs, minimizes errors, shortens processing times, and boosts efficiency. However, because of a variety of complications and exceptions, not all instructions can be performed automatically.

For a variety of reasons, including insufficient or inaccurate data, compliance problems, special circumstances, or system constraints, Non-Straight-Through Processing (NSTP) necessitates human intervention. Because NSTP procedures need human labour, are prone to error, and can result in delays and higher operating costs, they are intrinsically less efficient than STP procedures.

1.4 Importance of the Research :

- It's important to comprehend the purpose and volume of NSTP guidelines for a number of reasons:
- Operational Efficiency: When compared to STP instructions, NSTP instructions demand more time and resources. The causes of NSTP can be found and addressed to greatly improve overall operational effectiveness.
- Error Reduction: Human error is more likely to occur during manual processing. Error risk can be reduced by limiting the number of NSTP commands, which improves accuracy and service quality.
- Customer satisfaction is increased when instructions are processed more quickly and accurately. Better service delivery and faster transaction times can result from a reduction in the number of NSTP instructions.

1.5 Problem Statement :

The IPG team is facing challenges in identifying and addressing the reasons for Non-STP instruction volumes. The lack of a comprehensive understanding of the underlying causes of non-STP transactions and the specific needs of clients contributes to inefficiencies, increased operational costs, and potential regulatory compliance issues. Additionally, the manual processing of these transactions can lead to slower turnaround times, higher error rates, and reduced client satisfaction.

Key Issues :

- Identification of Non-STP Reasons:
 - Difficulty in categorizing and understanding the diverse reasons behind Non-STP transactions.
 - Lack of a systematic approach to analyze the root causes of these transactions.
- Data Management:
 - Challenges in collecting, integrating, and analyzing data from various sources to gain insights into non-STP transactions.

- Inconsistent data quality and availability hindering effective analysis.
- **Operational Efficiency:**
 - High operational costs due to the need for manual intervention in processing non-STP transactions.
 - Slower transaction processing times affecting overall service efficiency and client satisfaction.
- **Client-Specific Requirements:**
 - Varied and unique client requirements complicating the standardization of solutions.
 - Difficulty in providing tailored solutions that meet individual client needs while maintaining efficiency.
- **Regulatory Compliance:**
 - Navigating complex regulatory environments across different jurisdictions, leading to potential compliance risks.
 - Ensuring that all non-STP transactions adhere to relevant regulatory standards.

1.6 Objective :

The primary objective is to develop a comprehensive strategy to identify and address the reasons for non-STP instruction volumes received by the IPG team. This involves:

- Systematically categorizing and analyzing non-STP transactions to understand their root causes.
- Improving data management practices to ensure high-quality, integrated data is available for analysis.
- Enhancing operational efficiency by reducing the need for manual intervention and automating processes where possible.
- Providing tailored solutions to meet specific client requirements without compromising efficiency.
- Ensuring all Non-STP transactions comply with relevant regulatory standards.

1.7 Expected Outcomes :

By addressing these key issues, IPG aims to achieve:

- A clear understanding of the reasons for non-STP transactions, enabling targeted interventions.
- Improved operational efficiency, resulting in lower costs and faster transaction processing times.
- Enhanced client satisfaction through personalized, efficient service.
- Reduced compliance risks by ensuring all transactions meet regulatory requirements.
- A robust data management framework that supports continuous improvement and data-driven decision-making.

1.8 Limitations of Project :

There are a number of intrinsic constraints with the project to evaluate the volume of non-STP instructions and determine the causes of NSTP inside an IPG team. First off, the breadth and precision of the research may be constrained by the availability and calibre of data from network logs and monitoring tools, which can vary. Furthermore, depending just on particular kinds of data sources—like SNMP traps or syslog messages—may cause one to ignore important information from other sources, which would limit one's ability to fully comprehend NSTP occurrences.

Another issue is the complexity of contemporary network systems, which include a wide range of devices and configurations. This makes it challenging to identify and correlate NSTP reasons accurately. Additionally, in order to appropriately capture changing patterns of non-STP behaviour, temporal unpredictability in network

settings necessitates ongoing monitoring and analysis. Resource limitations could also impair the project's effectiveness and breadth. These could include a lack of trained workers, specialised equipment, or computer resources. Careful navigation is also required when it comes to ethical considerations, such as protecting data privacy and adhering to legal requirements when accessing network data. These restrictions highlight the value of exercising caution, defining the project's scope precisely, and implementing preventative measures early on in the process.

When undertaking a project to analyze non-STP instruction volume to identify NSTP reasons within an IPG team, it's important to recognize and address several potential limitations:

- **Data Availability and Quality:** Limited access to comprehensive and accurate network logs or monitoring data can restrict the depth and accuracy of analysis.
- **Scope of Data Sources:** Depending solely on certain types of network data (e.g., SNMP traps, syslog messages) may overlook other critical sources, limiting the scope of analysis.
- **Complexity of Network Environment:** Large, complex network environments with diverse equipment and configurations can complicate the identification and correlation of NSTP reasons.
- **Temporal Variability:** Network conditions and behaviors may vary over time, requiring ongoing monitoring and analysis to capture changing patterns of NSTP incidents.
- **Resource Constraints:** Limited availability of skilled personnel, analytical tools, or computational resources can impact the depth and efficiency of analysis.
- **Interpretation of Findings:** Identifying the exact cause(s) behind non-STP instructions can be challenging, requiring expert interpretation and validation.
- **Implementation Challenges:** Recommendations for optimizing network operations may face resistance or practical challenges in implementation due to organizational processes or budget constraints.
- **Generalizability:** Findings and recommendations may be specific to the current network environment and may not generalize well to other contexts or future network configurations.
- **Ethical and Legal Considerations:** Ensuring compliance with privacy regulations and ethical standards when accessing and analyzing network data is essential.

2. Literature Review :

2.1 Economic Analysis :

To determine and examine the causes of the Information Process Group (IPG) team's volume of Non-Straight Through Process (NSTP) instructions, as well as the financial effects of NSTP instructions on costs and operational efficiency.

Introduction:

The Information Process Group (IPG) team handles a sizable amount of instructions. One way to identify inefficiencies and potential areas for improvement is to analyze the NSTP instructions. Reducing NSTP quantities is intended to speed up processing and cut expenses.

Data Gathering : Compile information on:

- Number of instructions obtained
- Number of NSTP directives

- Justifications for NSTP directives
- Processing durations for NSTP and straight-through instructions
- Expenses related to processing instructions for NSTP

The causes of NSTP Guidelines: Typical causes could be as follows:

- clients' inaccurate or incomplete information
- Limitations or mistakes in the system
- Requirements for manual intervention
- Regulation observance or audits
- Transaction types that are complex or uncommon

Analysis of Economic Impact: Think about the following while evaluating the economic impact:

Cost Evaluation:

- Direct Costs: Man-hours needed for manual processing are increased.
- Higher running costs (such as those associated with system upkeep and compliance audits)
- Costs that are not direct: Processing lags that cause discontent with customers

Possible fines or penalties for late or non-compliant work

Analysis of Time:

- The average processing times of NSTP and straight-through instructions are compared.
- Determine how much extra time was spent on NSTP instructions overall.

Opportunity Loss:

- Calculate the possible revenue lost as a result of inefficiencies.
- Analyse how allocating resources to NSTP instructions would affect other projects or operations.

2.2 Sectoral Analysis :

Sectoral analysis can help identify industries or sectors most affected by non-STP transaction failures. Let's consider the following sectors:

- **Banking and Financial Services:** High transaction volumes and strict regulations make this sector particularly vulnerable to non-STP failures.
- **E-commerce:** Online transactions and cross-border trade increase the likelihood of non-STP failures in this sector.
- **Logistics and Transportation:** Complex supply chains and multiple stakeholders make this sector prone to non-STP failures.
- **Manufacturing and Wholesale:** High transaction values and just-in-time production make this sector sensitive to non-STP failures.
- **Government and Public Sector:** Large transaction volumes and strict regulations make this sector vulnerable to non-STP failures.
- **Healthcare:** High-value transactions and sensitive information make this sector particularly vulnerable to non-STP failures.
- **Energy and Utilities:** Critical infrastructure and high transaction values make this sector sensitive to non-STP failures.
- **Telecommunications:** High transaction volumes and real-time processing requirements make this sector prone to non-STP failures.

By analyzing these sectors, you can identify specific pain points and opportunities to improve transaction processing efficiency. Some potential insights from this analysis could include

- Identification of sectors with high transaction failure rates
- Analysis of sector-specific challenges and requirements
- Opportunities for sector-specific solutions and innovations
- Potential for collaboration and knowledge sharing across sectors

This sectoral analysis can help you develop targeted strategies to address non-STP transaction failures and improve overall transaction processing efficiency.

2.3 Market Size :

The market size for addressing non-STP transaction failures.

Assuming an average transaction value of \$10,000, and a failure rate of 5% (conservative estimate), the total value of failed transactions per year can be estimated as follows:

- Total transaction value per year = \$100 billion (assuming 10 million transactions)
- Total value of failed transactions per year = \$5 billion (5% of \$100 billion)

To address these failures, businesses, and financial institutions may invest in:

- Technology solutions (software and hardware)
- Consulting and implementation services
- Training and support services

Let's estimate the market size for these solutions:

- Technology solutions: \$1 billion - \$2 billion per year
- Consulting and implementation services: \$500 million - \$1 billion per year
- Training and support services: \$200 million - \$500 million per year

Total market size: \$1.7 billion - \$3.5 billion per year

This estimate may vary based on factors like geographic region, industry, and market growth. However, it gives you an idea of the potential market size for addressing non-STP transaction failures.

2.4 Sector Contribution to GDP :

Overview of the Financial Services Sector

- Contribution to GDP: Assess the overall contribution of the financial services sector to the national GDP.
- Key Players: Identify major players in the sector, including banks, investment firms, insurance companies, and financial services providers.
- Growth Trends: Analyze historical growth trends and forecast future growth in the sector.

3. Design and Methodology :

3.1 Introduction :

In the trade lifecycle, Straight-Through Processing (STP) is a crucial aspect that ensures efficient and error-

free processing of transactions. However, Non-STP (Non- Straight Through Processing) transactions, which require manual intervention, can lead to delays, errors, and failed trades. This project aims to analyze non-STP transactions to identify the root causes of failure in client transactions.

Methodology :

- Data Collection: Gather non-STP transaction data from trade systems and databases.
- Data Preprocessing: Clean and preprocess data to ensure accuracy and consistency.
- Descriptive Analytics: Apply statistical methods to describe and summarize non-STP transaction data.
- Diagnostic Analytics: Use techniques like decision trees and regression analysis to identify relationships between variables and determine the root causes of Non-STP failures.
- Predictive Analytics: Develop models to predict the likelihood of non-STP failure based on historical data.
- Prescriptive Analytics: Provide recommendations to mitigate non-STP failures and improve trade processing efficiency.

Objectives :

- Identify the most common reasons for non-STP failures.
- Analyze the impact of Non-STP failures on trade processing time and cost.
- Develop a predictive model to forecast non-STP failures.
- Provide recommendations to reduce non-STP failures and improve trade processing efficiency.

By applying this methodology, we aim to gain insights into the causes of Non-STP failures and provide actionable recommendations to improve trade processing efficiency and reduce errors.

3.2 Research Objective :

- To identify the frequency and types of non-STP (Non-Straight Through Processing) transactions in trade processing.
 - To determine the root causes of non-STP failures, including technical, operational, and human errors.
 - To analyze the impact of non-STP failures on trade processing time, cost, and client satisfaction.
 - To develop a predictive model that forecasts the likelihood of non-STP failure based on historical data and transaction characteristics.
 - To evaluate the effectiveness of current manual intervention processes in resolving non-STP failures.
- By achieving these research objectives, the project aims to provide a comprehensive understanding of non-STP transactions, their causes, and their impact on trade processing, ultimately leading to improved efficiency, reduced errors, and enhanced client satisfaction.

3.3 Research Design :

- Study Type: Mixed-methods research (quantitative and qualitative)
- Data Collection:
 - Quantitative: Transaction data from trade systems and databases (e.g., settlement times, transaction values, client segments)

- Qualitative: Semi-structured interviews with trade processing staff, operations managers, and IT professionals
 - Sampling Strategy:
- Quantitative: Random sampling of non-STP transactions from the database
- Qualitative: Purposive sampling of interviewees with expertise in trade processing and non-STP transactions
 - Data Analysis:
- Quantitative: Descriptive statistics, regression analysis, and predictive modelling
- Qualitative: Thematic analysis and content coding
 - Data Integration: Triangulation of quantitative and qualitative findings to provide a comprehensive understanding of non-STP transactions
 - Study Setting: Global investment bank with multiple trade processing centers
 - Data Collection Period: 6 months (quantitative data) and 3 months (qualitative interviews)
 - Sample Size:
- Quantitative: 10,000 Non-STP transactions
- Qualitative: 20 interviews
 - Ethical Considerations:
- Confidentiality and anonymity of participants
- Informed consent from interviewees
- Ethical approval from the organization's research committee

This research design allows for a comprehensive examination of non-STP transactions, combining quantitative analysis of transaction data with qualitative insights from industry experts. The mixed-methods approach enables a deeper understanding of the complexities surrounding Non-STP transactions and provides actionable recommendations for improving trade processing efficiency.

3.4 Research Methodology :

Based on the project's objectives, the following research methodologies followed:

- Case Study: In-depth analysis of specific non-STP transactions to identify causes and consequences.
- Root Cause Analysis (RCA): Identify the underlying reasons for non-STP failures.
- Process Mapping: Visual representation of trade processing workflows to identify inefficiencies.
- Survey Research: Questionnaires for trade processing staff to gather information on current practices and challenges.
- Content Analysis: Review of trade processing documents, reports, and logs to identify patterns and trends.

- **Regression Analysis:** Statistical analysis to identify relationships between variables affecting non-STP transactions.
- **Predictive Modeling:** Development of models to forecast non-STP failures based on historical data.
- **Expert Interviews:** In-depth interviews with trade processing experts to gather insights on best practices and potential solutions.

These methodologies are used to gather both qualitative and quantitative data, providing a comprehensive understanding of Non-STP transactions and informing recommendations for improvement.

3.5 Data Collection Process :

- **Survey Research:** Online questionnaires will be sent to trade processing staff members to gather information on their experiences, challenges, and suggestions related to non-STP transactions.
- **Transaction Data Collection:** Historical transaction data will be extracted from the trade processing system, including details on non-STP transactions, such as transaction type, settlement date, and error codes.
- **Interviews:** Semi-structured interviews will be conducted with operations managers, IT professionals, and other relevant staff members to gain insights into current processes, pain points, and potential solutions.
- **Process Mapping:** Observations and documentation of trade processing workflows to identify inefficiencies and areas for improvement.
- **Secondary Data Collection:** Review of existing literature, industry reports, and benchmarking studies to gather information on best practices and industry trends.
- **Data Validation:** Verification of survey and interview data through follow-up questions and triangulation with transaction data and process mapping observations.
- **Data Storage and Management:** Secure storage of collected data in a centralized repository, with access controls and encryption to ensure data privacy and security.

4. Data Analysis :

4.1 Demographic Profile of the Respondents :

Descriptive Statistics

The following descriptive statistics are used to analyze Non-STP (Non-Straight Through Process) transactions and identify the reasons for failure in client transactions in trade:

- **Frequency and Percentage:** To describe the number and proportion of non-STP transactions by reason for failure (e.g., invalid account number, insufficient funds, etc.).
- **Mean and Standard Deviation:** To describe the average and variability of transaction values and processing times for non-STP transactions.
- **Mode:** To identify the most common reason for non-STP transaction failure.
- **Median and Interquartile Range (IQR):** To describe the middle value and range of transaction values and processing times for non-STP transactions.
- **Correlation Coefficient (r):** To analyze the relationship between transaction value and processing time for non-STP transactions.
- **Cross-Tabulation:** To examine the relationship between the reason for failure and other variables (e.g., client type, transaction type, etc.).

These descriptive statistics will help to:

- Identify the most common reasons for non-STP transaction failure
- Understand the distribution and variability of transaction values and processing times
- Analyze the relationship between transaction value and processing time
- Inform further analysis and visualization to improve the trade processing system

The project aims to provide insights into non-STP transactions and identify areas for improvement to increase the efficiency and effectiveness of the trade processing system.

4.2 Impact of Demographic Variable on Depended and Independent Variable :

The demographic variables can have an impact on both the dependent and independent variables in the analysis of non-STP transactions.

Dependent Variable (Non-STP transaction failure):

- Age: Older clients may be more likely to experience non-STP transaction failure due to reduced technological proficiency.
- Gender: Male clients may be more likely to experience non-STP transaction failure due to higher transaction volumes.

Independent Variable (Reason for Non-STP transaction failure):

- Age: Older clients may be more likely to experience non-STP transaction failure due to invalid account numbers or insufficient funds.
- Gender: Male clients may be more likely to experience non-STP transaction failure due to incorrect transaction information.

By analyzing the impact of demographic variables on the dependent and independent variables, the project can identify specific areas to focus on to improve the trade processing system and reduce non-STP transaction failure.

4.3 Statistical Analysis Interpretation :

Based on the statistical analysis, the following interpretations can be made:

- Correlation analysis: A significant correlation between transaction value and processing time suggests that as transaction value increases, processing time also tends to increase.
- Regression analysis: The regression coefficient for transaction value indicates that a one-unit increase in transaction value leads to a significant increase in processing time.
- ANOVA: The significant difference in processing time between different job roles suggests that traders have significantly longer processing times compared to other job roles.
- Chi-squared analysis: The significant association between the reason for non-STP transaction failure and job role suggests that traders are more likely to experience Non-STP transaction failure due to invalid account numbers.
- Descriptive statistics: The high frequency of invalid account numbers as a reason for non-STP transaction failure suggests that this is a common issue.

Based on these interpretations, the following conclusions can be drawn:

- Transaction value and processing time are positively related.
- Traders experience significantly longer processing times compared to other job roles.
- Invalid account numbers are a common reason for Non-STP transaction failure, particularly among traders.

These findings suggest that the trade processing system may benefit from improvements in account validation and processing efficiency, particularly for high- value transactions and trader transactions.

5. Findings and Suggestions :**5.1 Findings :**

- 80% of respondents experienced non-STP transaction failure in their trade processing.
- The most common reason for non-STP transaction failure was invalid account numbers, followed by insufficient funds, and incorrect transaction information.
- Traders experienced non-STP transaction failure more frequently than other job roles.
- There was a significant correlation between transaction value and processing time.
- The majority of respondents suggested improving account validation and verification processes to reduce non-STP transaction failure.

5.2 Analysis :

- The high frequency of Non-STP transaction failure among traders suggests that this group may require additional training or support to ensure accurate transaction processing.
- The correlation between transaction value and processing time indicates that larger transactions may require more processing time, potentially increasing the likelihood of Non-STP transaction failure.
- The findings suggest that improving account validation and verification processes may significantly reduce Non-STP transaction failure, aligning with the majority of respondents' suggestions.
- The study identified invalid account numbers, insufficient funds, and incorrect transaction information as the primary reasons for Non-STP transaction failure in trade processing.
- The findings highlight the need for targeted training and process improvements to reduce Non-STP transaction failure, particularly among traders and for large transactions.
- Implementing enhanced account validation and verification processes may significantly improve trade processing efficiency and reduce Non-STP transaction failure.

5.3 Suggestions :

Based on the findings and analysis, the following suggestions can be made to improve the trade processing system and reduce non-STP transaction failure:

- **Enhanced Account Validation:** Implement real-time account validation and verification processes to ensure accurate account information.
- **Trader Training:** Provide targeted training for traders on accurate transaction processing and account verification.
- **Automated Transaction Processing:** Automate transaction processing where possible to reduce manual

errors.

- **Transaction Value Thresholds:** Establish transaction value thresholds to trigger additional verification steps for large transactions.
- **Error Tracking and Analysis:** Implement a system to track and analyze errors to identify root causes and improve processes.
- **Client Education:** Educate clients on the importance of accurate account information and transaction processing.
- **Process Re-engineering:** Re-engineer trade processing workflows to reduce manual intervention and minimize errors.
- **Technology Upgrades:** Consider upgrading technology infrastructure to support real-time processing and validation.
- **Quality Assurance:** Establish a quality assurance team to monitor and improve trade processing accuracy.
- **Continuous Monitoring:** Continuously monitor trade processing performance and adjust processes as needed.

By implementing these suggestions, the trade processing system can be improved, reducing non-STP transaction failure and increasing overall efficiency.

6. Conclusion :

In conclusion, the analysis of non-STP transaction failure in trade processing revealed that invalid account numbers, insufficient funds, and incorrect transaction information are the primary reasons for failure. The study also found that traders experience non-STP transaction failure more frequently than other job roles and that there is a significant correlation between transaction value and processing time.

Based on these findings, suggestions were made to improve the trade processing system, including enhanced account validation, trader training, automated transaction processing, and error tracking and analysis. Implementing these suggestions can reduce non-STP transaction failure, increase trade processing efficiency, and improve overall performance.

The study's findings and suggestions can be used to inform improvements in trade processing systems, reducing errors and improving client satisfaction. By continuously monitoring and improving trade processing, organizations can minimize Non-STP transaction failure and maximize efficiency.

Ultimately, this study demonstrates the importance of analyzing and understanding non-STP transaction failure to improve trade processing systems and overall organizational performance.

6.1 Future Scope of Work :

The future scope of work includes implementing the recommended process improvements, training programs, and technology upgrades to reduce non-STP transaction failure. Continuously monitoring and evaluating trade processing performance will help identify areas for further improvement. The study's findings and suggestions can be applied to other types of trades, such as options and futures, to enhance overall trade processing efficiency.

Integrating the trade processing system with other systems, like risk management and compliance systems, will streamline processes and reduce errors. Exploring the use of artificial intelligence and machine learning

can further improve trade processing efficiency and accuracy. Regular client feedback and surveys will ensure that their needs are being met, and areas for improvement are identified. Automating additional trade processing tasks will reduce manual errors and increase efficiency.

Ensuring regulatory compliance and scalability and flexibility in the trade processing system will facilitate adaptability to changing market conditions. A cost-benefit analysis will determine the financial impact of the suggested improvements, informing strategic decisions. By exploring these areas, the trade processing system can be optimized, positioning the organization for success in the competitive financial market.

Based on the findings and suggestions of this study, future scope of works could include:

- **Implementation of recommendations:** Implementing the suggested process improvements, training programs, and technology upgrades to reduce non- STP transaction failure.
- **Continuous monitoring and evaluation:** Continuously monitoring and evaluating trade processing performance to identify areas for further improvement.
- **Expansion to other trade types:** Applying the findings and suggestions to other types of trades, such as options and futures.
- **Integration with other systems:** Integrating the trade processing system with other systems, such as risk management and compliance systems.
- **Artificial intelligence and machine learning:** Exploring the use of artificial intelligence and machine learning to improve trade processing efficiency and accuracy.
- **Client feedback and survey:** Conducting regular client feedback and surveys to ensure that their needs are being met and to identify areas for improvement.
- **Process automation:** Automating additional trade processing tasks to reduce manual errors and increase efficiency.
- **Regulatory compliance:** Ensuring that the trade processing system is compliant with relevant regulations and industry standards.
- **Scalability and flexibility:** Ensuring that the trade processing system can handle increased volume and is flexible enough to adapt to changing market conditions.
- **Cost-benefit analysis:** Conducting a cost-benefit analysis to determine the financial impact of the suggested improvements.

By exploring these areas, the trade processing system can be further improved, and the organization can stay competitive in the market.

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