

The Principles of Straight-Through Loan Processing

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With the recent small business lending frenzy and an increase in mortgage refinancing, lenders implementing straight-through loan processing have a significant advantage. What is straight-through processing, though?

Straight-through loan processing (or STP) means automation of the entire lifecycle of the loan from loan application to disbursement, with little-to-no manual intervention. Financial institutions can then service the borrower quicker while saving highly skilled resources to work on more complex cases. As a result, many institutions are using STP to scale their business banking to a greater degree. Not only are loans processed in optimal time, allowing the institution to process more loans, but customer satisfaction also increases. But how do STP systems work, and how do software service providers develop straight-through loan processing solutions? What parameters are entered into the automation solution to mimic the human intervention of lending decisions? Does the functionality work with all types of loans, or is it more difficult for your company to rely on STP if you are issuing certain kinds of loans? Can risk management really be automated? What about regulatory considerations? And finally, how does straight-through loan processing affect the customer experience?

In this article, we will explain how automated loan processing workflows answer all of these questions and more, and why an ever-increasing number of lenders are turning to straight-through processing for their loan origination processes.

STP in the Loan Origination Process

There are many kinds of loans and many ways that loans can be originated. Your financial institution might do things a bit differently from the bank down the street, and that's natural. But even in the most complex kinds of loans, commercial lending transactions, automation through software is still making a huge impact for all kinds of lenders. Here's how.

Before implementing any loan processing automation, financial services companies must work closely with the software development company to determine the specific parameters of the lending decision that matter to their underwriters. Think of this as a process of coding the underwriting manual for different kinds of loans into a software system.

Factors such as Internal Rate of Return (IRR), Loan to Value (LTV) Ratio, and Debt Service Coverage Ratio (DSCR) are just a few of the evaluation aspects in the lending decision—particularly in commercial lending. Because of the complexity of commercial lending and the amount of information that needs to be accumulated, lots of manual intervention is typically required. But with enough forethought, a lot of underwriting conditions can be pre-programmed so that even if the loan is not fully automated it can still be largely underwritten by machine. When it comes to consumer lending, STP is much easier to employ because the parameters are more straightforward.

Data such as credit history, debt-to-income ratio, and collateral can be securely entered by the borrower, and cross-checked by secure third party services, reducing the data entry requirements for the lending institution.

When the straight-through loan processing model is utilized with mortgage loan origination, [manual labor by underwriters is reduced by up to 80%](#). In addition, the loan processing time is reduced because human intervention is often eliminated. Loan data is run through the STP process, and only if something in the application is outside of the specified parameters will the procedure require human review. Gone are the days when bank staff must manually compare data across numerous documents to verify loan information for missing or incorrect information, which inevitably slows down the business process and means that staff aren't free to work on other critical tasks.

Risk Management for Automated Decisions

As risk factors play a significant role in the credit decisions that lenders make, clearly, a successful straight-through loan processing model must account for risk elements such as industry, legal structure, macroeconomics, dispute history, and more. Integrations with third party services mean that your institution can actually see real-time transactional data about a potential borrower, and run the STP algorithm based on that information.

Take cash flow for instance. Your system can actually hook up to a client's bank account via ACH to securely review key financial transactions from the account and use that to feed into your firm's risk management rules engine.

Because STP has been utilized extensively, the extent of risk factors considered is comprehensive. Don't forget: good straight-through processing systems pull from Big Data resources across every industry, consumer demographic, and resource, from e-commerce data to regional economics.

Due to consumer protection legislation, such as the [Dodd-Frank Act](#), banks have to ["aggregate, analyze, estimate, and share data about customer transactions."](#)

The STP system can then access the shared database and collect the risk data needed for a sound lending decision. In addition, as the lender's STP program continues to evaluate new applications, amass new data, and then share the data, the information continues to improve the integrity and accountability across all financial institutions. In some countries, open banking regulations are driving this trend even faster, causing more and more lenders to choose straight-through processing for their loan decisions as they come to trust the data even more.

Algorithms in Lending

The absence of human intervention in STP lending relies on the algorithms coded into the processes which help make lending decisions based on a given set of constraints. There are specific factors, such as the amount of money requested for a business line of credit and the particular collateral that's required for the requested amount. However, as Google makes clear with its search engine ranking, algorithms are a very fluid process that changes and pivots according to many specific aspects.

STP is rule-based automation. The challenge comes when the rules change or are inconsistent. However, while no technology can deliver absolute certainty in lending outcomes, a well-designed STP can come close.

For example, banks can use artificial intelligence to find and correct patterns of historical discrimination in their algorithms to equal out rates of approval for women and minorities. Using a properly designed decision engine, pricing rules can be set in advance in a way that prevents discrimination, even unconscious bias, from entering the lending process. In addition, many traditional lending rules that banks were using had to be overhauled when the federal government announced the new Paycheck Protection Program (PPP) back in 2020. Rules were set by the federal government and then changed again, and again, with the increased appearance of [PPP-related fraud and money-laundering scenarios](#). For human-based underwriting, these constant changes are overwhelming and lead to errors of judgment. But in STP these risks are avoided. Every change/adjustment is tested and retested as it compares to human involvement and only released into the software when it performs correctly.

Finally, straight-through loan processing algorithms allow exceptions based on established business rules and regulations that your financial institution has adopted. There are many exemplary cases in the business lending space where this applies (all hotels must be underwritten manually, for example). Think of these as rules that tell the system when to be especially careful that the rules should not be broken, or when to call in human intervention if needed.

Best Practices for Straight-Through Processing

Straight-through processing eliminates the need for various time-consuming processes such as repeat data entry and multiple verifications. Still, the ultimate benefit lies in the increased number of loans that can be analyzed, approved, and processed, as well as satisfying customers who now benefit from receiving a quick lending decision.

Improved profitability of lending operations is one of the most common reasons that institutions ultimately choose to jump on the STP bandwagon.

The implementation of the STP is best approached as an overhaul of all technologies of the institution. Whether the system fits into what currently exists or programs currently in place get upgraded, STP must fully integrate to be responsive. Divergent systems cause unnecessary conflicts as the information needs to be seamlessly shared. Likewise, systems must be customizable and adaptable so lenders can modify the STP as new information and opportunities emerge.

Keep in mind, STP is not a quick fix to streamlining the lending process. Implementation takes time, effort, and constant modification. Incorrect data entry at the beginning of the process can cause numerous errors down the pipeline, so regularly monitoring the processes (especially in the beginning) is critical. Ensure all front- and back-end staff are on board and understand how regular testing is vital to continued accuracy and security. If you do it right, straight-through processing can make your lending more efficient, risk sensitive and overall profitable from start to finish.