



Work Like Tomorrow.™

Solving the Problem of Paper in Mortgage Loan Origination

Improving the Speed, Efficiency, Security and Simplicity
of Mortgage Loan Origination Processes

KOFAX



Contents

Executive Summary.....	3
Mortgage Loan Origination: A Process in Need of Improvement.....	4
The "Stare and Compare" Problem.....	5
Advanced, Efficient, Compliant and Customer-Friendly Mortgage Origination	8
Delivering Measurable Results at Financial Services Providers.....	12
Conclusion	13
About Kofax.....	13



Executive Summary

Banks today are facing pressure from all sides. With interest rates at historic lows¹, lenders are having trouble keeping up with the frenzy of calls from consumers asking about borrowing or refinancing debt. At the same time, financial technology (fintech) companies are reshaping customer expectations for the lending process, and banks must offer a faster, simpler process and a smoother customer experience if they want to compete effectively. However, many institutions lack the ability to scale and respond quickly to changes in this fast-evolving industry, which is essential if they are to improve their position and create a modern lending experience for customers.

One of banks' prime candidates for process improvement is mortgage loan origination. Mortgages remain important contributors to banks' revenue. But today's predominantly paper-based mortgage loan origination process is plagued by costly delays and inefficiencies. Mortgage loan origination files average about 400-500 pages, and closings typically take 45 days². In addition, the cost of originating a single loan as of 2018 is \$8,000 or more, according to the most recent MBA data³.

Meanwhile, smart information technologies—such as multifunction devices (MFDs), mobile phones and tablets—through which banks hope to realize process improvements introduce vulnerabilities that could find banks out of compliance with regulatory requirements. Customers' non-public information (NPI) or personally identifiable information (PII) is at risk every time mortgage-related paper documents or electronic information is created, scanned, copied, printed, faxed or emailed.

¹ [Is now a good time to refinance to a 15-year mortgage?](#), USA Today, April 20, 2020

² [Ellie Mae's January Origination Insight Report \(2019\)](#)

³ [What You Didn't Know About Digital Mortgages](#), Elliemae.com



Mortgage Loan Origination: A Process in Need of Improvement

In a healthy economy, strong job growth often translates into a robust resale market and increased housing starts. Combined with low mortgage rates, this scenario is all but guaranteed to foster an active mortgage origination market. Even in uncertain times, banks are likely to experience higher demand as more consumers seek to refinance and consolidate debt. Indeed, in March 2020, the Mortgage Bankers Association (MBA)⁴ found refinance activity was up 168%, in the midst of the COVID-19 pandemic, even as The Wall Street Journal⁵ reported an 8.5% decline in sales of previously owned homes for the month.

Deloitte⁶ predicts a new wave of disruption for lenders in the coming decade, driven especially by technology. Lenders that lack the ability to scale or offer differentiated capabilities will be challenged, the consulting firm predicts. “Banking should become more open, transparent, real-time, intelligent, tailored, secure, seamless, and deeply integrated into consumers’ lives and institutional clients’ operations.”

Yet, despite investing four times as much money in digital capabilities, “large banks appear to have great difficulty translating technological expertise and resources into efficient technology support for the mortgage origination business,” reports consulting firm STRATMOR Group⁷.

One reason is that mortgage origination processes haven’t been digitized end-to-end. Even though most lenders have implemented a digital mortgage application, many haven’t yet automated their back-office processes. More than a third of lenders (36%) don’t have a borrower portal, according to a survey conducted jointly by HousingWire and Maxwell⁸.

⁴ [Is now a good time to refinance to a 15-year mortgage?](#)

⁵ [Americans Pulled Back From Home Purchases in March as Coronavirus Spread](#)

⁶ [2020 banking and capital markets outlook](#), Deloitte, December 3, 2019

⁷ [Big banks aren’t turning profits like their independent counterparts](#)

⁸ [HousingWire survey: Are lenders adopting digital technology?](#)



The “Stare and Compare” Problem

While lenders have provided borrowers with online access to bank statements and other loan documents, they are in the infancy stage as they transition away from paper. Many banks remain reliant on documents and manual tasks. Employees continue to handle quality control reviews, which are often repetitive and redundant, and many steps in the process still require staff to stare at loan documents and manually compare data points.

IT systems may be key to mortgage customer retention, but the complexity, errors and delays inherent in the prevailing document-based mortgage process are key contributors to a poor customer experience and attrition—the exact opposite result from what banks want.

Copying, faxing, scanning, printing and manual keying of data occur at every point of the mortgage loan process. A mortgage origination package averages about 400 to 500 pages and completing the process can take over a month. In 2019, mortgage processing from origination to closing was taking on average 45 days⁹.

Along the way, time, costs and frustration add up as documents are scanned in branches and information is re-keyed multiple times into siloed systems that cannot capture data from scanned images. Pages are lost, and errors are introduced.

Even as companies automate some processes, these inefficiencies persist. In a Forbes Global Insight¹⁰ survey of senior executives, 60% said they wanted their processes to be automated or mostly automated, but only 38% said they had achieved that benchmark.

For example, even when documents are ingested or uploaded from digital mortgage applications, they're often manually indexed and then retrieved for review repeatedly. Lenders still maintain multiple repositories, manually move documents between them and perform manual indexing. Further, banks frequently fail to extract data embedded in documents for use in the organization's business processes.

Disconnected technologies, combined with requirements to validate and verify specific information, create more manual work. For example, to process a loan, an employee will turn to the Loan Origination system to see what data has been entered. To verify the applicant's bank balance, they'd need to open the document repository and review the most recent statement. Resolving exception items in the fraud report also means toggling back and forth between the Loan Origination System and the document repository as well as vendor

⁹ [Ellie Mae's January Origination Insight Report \(2019\)](#)

¹⁰ [Forbes Global Insight Survey, Accelerating Business Value with Intelligent Automation, 2019](#)

services, even though many of these are integrated. This process extends the application time and introduces a higher potential for errors.

Streamlining this process into one that is faster and more transparent will reduce the “time to decision” and vastly improve the customer experience. According to McKinsey, slashing the “time to yes” has the potential to improve profit. The analyst firm estimates a “bank with a balance sheet of \$250 billion could capture as much as \$230 million in annual profit, of which just over half derives from cost efficiencies (such as less “touch time” and lower cost of risk)¹¹.”

The Compliance and Security Challenge

While regulatory compliance continues to be a major contributor to financial institutions’ operating costs, in 2018, many banks benefited from a rollback on certain provisions of the Dodd-Frank bill¹². Restrictions were eased on all but the largest banks, including relaxing of mortgage data reporting requirements for some lenders.

Yet new compliance hurdles remain on the horizon. The 2018 implementation of the European Union’s General Data Protection Regulation is driving interest for a similar policy in some U.S. states, such as California, New York and Vermont. As Deloitte reports, protecting client’s digital identity will be the “new frontier for banking¹³.” As of 2020, there is no national privacy regulation in the U.S. As states enact their own regulations, the complexity of complying with each will rise.

¹¹ [The lending revolution: How digital credit is changing banks from the inside](#), McKinsey, August 2018

¹² [Trump signs the biggest rollback of bank rules since the financial crisis](#), CNBC, May 24, 2018

¹³ [2020 banking and capital markets outlook](#), Deloitte, December 2019



Banks that do not automate their mortgage processes, and improve the customer experience by doing so, are essentially ceding business to competitors that will.

Besides being a challenging environment in which to do business, this continually changing regulatory landscape draws attention to the deficiencies and risks of both manual processes and the technologies that are supposed to help banks deliver a more satisfactory customer experience. Truth is, while major breaches of online systems make the headlines, it's the everyday lapses of people being careless or malicious in their use of office and mobile technologies that give CIOs and compliance officers headaches:

- **Documents containing loan applicants' tax returns** were stolen when a Kansas bank employee left them in a vehicle while at the gym.
- **Banks in Scotland and Canada** faxed customer account information to wrong numbers for years.
- **A contractor to a New York-based bank** emailed confidential client data to an incorrect Gmail account.
- **Thefts of laptop computers** compromised information on customers of Ohio and Wisconsin banks.

Security vulnerabilities and potential compliance problems exist at every information touch point: in every analog fax machine that lacks activity logging; in every digital multifunction device (MFD) that copies, prints, scans and faxes documents, stores images on an internal drive and retains email addresses, network and user IDs and even passwords in memory; and in every mobile device from which information can be accessed, shared or printed. In the absence of user authentication, audit trails or other security controls, each document and action presents a risk of exposure and a point of vulnerability where NPI or PII can be accidentally misdirected or intentionally compromised.

Printing of loan forms or the applicant's driver's license, Social Security card, W2 or proof-of-employment to shared MFDs risks exposure of that information being left sitting in the output tray or picked up by the wrong person. Unsecured MFDs could be used to make

and transmit unauthorized copies or scans. Loan officers often make copies of these loan documents before scanning to ensure there are copies in case paperwork is lost. These copied documents are then stored in unsecure filing cabinets, in employee desks, etc. Even documents stored in the MFD's hard drive could be improperly printed out or copied onto a USB stick.

To be sure, electronic technologies and processes do not completely eliminate paper and they, too, entail vulnerabilities. In the absence of enterprise-wide integration, for example, a bank's method of sharing information internally might include delivering, emailing or faxing it to other departments, sometimes for re-keying as previously mentioned. Mobile devices present risk from theft or loss but also in their well-intentioned, but non-secure use. Perhaps a bank's mobile strategy has not fully accounted for security. Or employees might be using mobile devices inappropriately in their own time-saving workarounds. Imagine a branch loan officer who, either lacking access to a scanner or preferring not to use one, photographs an applicant's driver's license and proof-of-income on his bank-issued mobile phone, emails the images to his bank address, then imports them into the electronic loan package—with no record of how the information got there and no guaranteed deletion of the images from his device.

To become more competitive, compliant and efficient in their mortgage processing, banks need to capture documents and information electronically as a way to eliminate as much paper as possible, automate manual steps and workflows, add security and control wherever paper is required or information is transmitted, simplify the sharing of information between business units, and save time and money. Banks that do not automate their mortgage processes, and improve the customer experience by doing so, will lose business to competitors capable of delivering a fully digital mortgage experience.



Advanced, Efficient, Compliant and Customer-Friendly Mortgage Origination

By replacing manual processes with secure and automated workflows, Kofax helps banks transform their mortgage origination process into a faster, more compliant and secure customer experience. When the mortgage origination process is automated end-to-end, banks minimize the chance of human error, reduce the risk of compliance violations and promote customer cross-selling and retention – all while significantly lowering operating costs.

A simple, streamlined process in action

A typical mortgage application scenario illustrates the speed, efficiency, security and economy of automating the mortgage loan process.

Digitizing documents at the point of origin

In one example, a well-prepared customer seeking a mortgage loan comes to the bank branch with all of the supporting materials needed for her application, including tax returns, pay stubs, employment verification, photo ID and more. The branch loan officer initiates the bank's loan process, enters information into his computer and collects the customer's documents as part of assembling the loan package.

At a paper-dependent institution, the loan officer would scan all related documents. However, this process is limited, as it captures only an image. The customer's information still needs to be manually entered into the Loan Origination System. But the banker gains more advanced options with automation. Using the branch's multi-function device (MFD) or mobile device, they can capture and distribute all of the customer's documents and information, transmitting it securely and automatically at the time of collection into the bank's mortgage loan system.

To unlock the MFD, the loan officer authenticates himself by swiping a proximity ID card or entering his username and password or PIN number on the machine's front panel or on a mobile device. With the banker securely logged in, he is presented with the pre-defined workflows he's been authorized to use. In this case, one of these workflows will capture the documents and transmit them securely to the bank's service center, eliminating the logistics, time and costs of manual handling and physical delivery. The banker is notified immediately if the submission was successful, including the total number and type of pages.

Automating error-prone manual tasks

Automated data extraction, document type identification (with or without barcode), image correction and cleanup, blank page removal and double-sided scanning speed the handling and processing of loan documents, increase accuracy of the package and eliminate the delay and errors of manual rekeying. Seamless and secure integration makes appropriate information available to the institution's core banking, enterprise content management, business analytics or marketing systems.

Bi-directional database lookups can auto-fill fields, speeding package completion for prior or current customers. Entire workflows can be pre-defined and saved to a single button. Scanning functions are fully automated, transforming data into industry-specific formats without the user needing to know or specify any input or output settings. Also automated are routine, error-prone tasks such as barcode-based naming, batching, splitting, filing and indexing of scanned documents. Validation and filtering at the point of origin ensure accurate document handling and routing, including the immediate routing of documents requiring wet signatures. When user action is required, visual prompts limit human error.

Within seconds, the banker can receive an automated notification confirming the successful scan, including the total number of pages by type. He can access this information, and future updates, at any time through a History/Status function on the MFD, his desktop PC or mobile device.

Accepting documents from any input source

Suppose the customer's proof of insurance was missing from the scanned documents. The loan officer will be immediately notified of the exception. The system will provide a barcoded cover sheet to assure the document—if available for scanning—gets correctly appended to the customer's application. But if the customer left a document at home, even that's not a cause for delay.

The customer can capture the needed document and fax it with a specially barcoded cover sheet that automatically connects this document to the exception. Or she can send the document by email, with or without the barcode identifier, either to a one-time address linked specifically to the exception or to the banker's business email address. Kofax captures documents from any input source, including scanner, email, fax, Web forms, Outlook and Notes integrations, and a mobile client. So in whatever form the information exists, it can become part of the customer's application.

The banker, in turn, can receive and review the emailed document on his smartphone and forward it to the Kofax platform. Using his same network ID as on the MFD, he can securely access the same predefined workflows, allowing him to add the customer's document, resolve the exception and check the loan's history and status to confirm that the electronic loan package contains all required documents.

Improve the customer experience

Kofax eliminates the manual processes and human errors that can delay closing and lead to customer dissatisfaction. Auto-filling of loan application fields, automated data capture from scanned images, instant document transfer from branches to central offices and continual visibility into loan status increase accuracy, speed processing and assure customers their application is on track.

Simplifying compliance

The only way documents containing NPI or PII can be scanned, copied, printed, emailed or faxed within regulatory compliance is under a system incorporating technological security and authentication. Kofax meets all of the requirements for assuring the security, integrity and confidentiality of mortgage customers' information:

- **Authorization:** Password- or smartcard-based authentication assures that only authorized staff can access specific devices, network applications and resources. Network authentication is seamlessly integrated with document workflow, to ensure optimal security.
- **Authentication:** User credentials must be verified at the device, by PIN/ PIC code, proximity (ID), or by swiping a smartcard to access documents containing customer information. Once users are authenticated, the solution applies rules and permissions to control what they can do on an MFD, even prohibiting documents with NPI or PII from being printed, faxed or emailed.
- **Encryption:** Communications between smart MFDs, mobile devices, the server and allowed destinations are encrypted to ensure documents are only visible to users with proper authorization.
- **File destination control:** Simultaneous monitoring and auditing of information in documents ensures it is controlled before it ever gets to its intended destination. A complete audit trail captures all MFD and document activity.
- **Content filtering:** Automatic enforcement of security policies proactively prevents NPI or PII from leaving the bank by filtering outbound communications and intercepting documents headed to unauthorized destinations.
- **Secure output:** When documents need to be printed, Kofax prevents exposure of customer information by holding print jobs in a secure print queue and outputting them only when the bank employee signs in at the printer and selects the specific documents to output.

Kofax extends this same level of security to mobile devices, allowing bankers to create, receive, access, route and output documents from smartphones and tablets. Secure completion of forms on mobile devices, including electronic signatures, helps to eliminate the need for paper. Since data is never stored on the device, there is little risk of customers' information being compromised if a device is lost or stolen.

Delivering Measurable Results at Financial Services Providers

The improvements that can be achieved with Kofax are not merely possible but are already being realized by banks and other financial services firms around the world every day. In just the first year of implementation, a regional bank in Pennsylvania, increased its annual processing capability from 3 million documents to over 6 million. Connecting 210 distributed MFDs to the bank's Nautilus backend system, Kofax enables users to log in at the MFD panel and securely scan documents to a home directory, fax or email. Select power users can process electronic documents at the desktop. In addition, certain users at each branch have access to workflows that scan entire loan packets including barcoded documents that enable automatic document renaming, splitting and routing by type. Kofax provides a single unified solution that leverages the bank's existing hardware investments and eliminates the need for multiple third-party licenses for each user.



A Tennessee-based mortgage company has centralized processing for all of its customer classes—commercial, wholesale and retail—into a Kofax solution providing document capture, routing and integration to multiple systems. Integrating a network of 67 devices, with no extensive reconfiguration or employee training required, the solution “completely fit the need,” says the company’s vice president of information technology. “It met our criteria with its versatility and the ability to more fully leverage the capabilities of our existing mixed fleet of MFPs. We’re now able to route documents within geographically dispersed departments and ultimately into our central document management system for storage.”

Kofax solutions have helped the company to increase staff efficiency, enhance customer service, provide security for loan documents and reduce costs. In fact, in just the elimination of physical document shipping between branches and headquarters, the company estimates savings at over \$15,000 a month.



Conclusion

New disruptive competitors, high expectations for customer experience and the long-term impact of unexpected events, such as COVID-19, offer banks ample reason to improve their mortgage loan origination processes. Those that continue to rely on antiquated paper-based, manual processes will find it difficult to compete against those that have successfully completed digital transformation of their operations. Intelligent automation capabilities such as cognitive capture and process orchestration can help banks close gaps in the mortgage loan origination process, reduce errors and improve efficiency. Achieving the right balance between human workers and digital colleagues will help banks be more resilient in uncertain times and consistently exceed customer expectations. With Kofax, you can begin working like the digitally enabled bank of tomorrow, today.



About Kofax

Kofax software enables organizations to Work Like Tomorrow—today. Our Intelligent Automation software platform helps organizations transform information-intensive business processes, reduce manual work and errors, minimize costs, and improve customer engagement. We combine RPA, cognitive capture, process orchestration, mobility and engagement, and analytics to ease implementations and deliver dramatic results that mitigate compliance risk and increase competitiveness, growth and profitability. Kofax provides a rapid return on investment for over 20,000 customers in financial services, insurance, government, healthcare, supply chain, business process outsourcing and other markets. Kofax delivers its software and solutions through its direct sales and services organization and more than 650 indirect channel partners and integrators in more than 60 countries throughout the Americas, EMEA and Asia Pacific.

WORK LIKE TOMORROW.™

kofax.com

© 2020 Kofax. Kofax and the Kofax logo are trademarks of Kofax, registered in the United States and/or other countries. All other trademarks are the property of their respective owners.

KOFAX

