Datalytics® for the Automotive Industry

Leveraging the power of Artificial Intelligence (AI) and Machine Learning to deliver significant efficiencies

By Kristen Girard, Technology Product Management Associate Director, Wolters Kluwer
and **Tim Yalich**, Head of Automotive Strategy, Wolters Kluwer Compliance Solutions

Wolters Kluwer

www.wolterskluwer.com

Inconsistent data quality: A barrier to seamless digital automotive financing

Today's consumers expect fully digital buying experiences for just about everything—and that includes cars and trucks. The pandemic signficantly accelerated online shopping and buying, with dealer visitations down sharply in 2020 and online visits at an all-time high. And while changing pandemic conditions have increased in-store dealer visits, customer expectations for seamless digital contracting remains high.

Successful, efficient, end-to-end digital contracting requires, among other things, a fully automated and expedited lending process that's designed for ease of use by originators, dealers, lenders, and consumers of automotive loans. But for years, technical barriers have long made this goal impossible—from the limited availability of a complete set of eSignable documents to highly variable levels of data accuracy and compliance in documents generated by today's e-origination platforms.

As explored in this whitepaper, intelligent, next-generation technologies are addressing these barriers, paving the way for true end-to-end digitalization of automotive financing.

First-generation platforms: A source of digital data issues

In an effort to move forward, lenders have invested heavily in integrations with first-generation platforms or services, used by dealers to originate loans—both digitally and on paper. These platforms allow lenders to access digitalized data from originators, but not from the original contract documents. Rather, data typically comes from non-authoritative sources such as online and manual data entry, system data transfers and integrations, and unassociated XML files.

Some platforms, such as retailer systems, use manual data entry to transfer data from paper documents into a digital form; this introduces the risk of human error and can cause delays, as paper files may need to be transferred to outside resources. Others bring loan data into the digital world using traditional scanning and optical character recognition (OCR) services, but these can have such high error rates that they are essentially exception-generating services.

This is not surprising given the lack of consistency in paper forms that buyers and dealers typically complete to create loan jackets. Many smaller dealerships lack the financial resources to leverage these platforms, so they still send banks loan jackets as paper files, which lack modern security and encryption protections. As a result, papers can get lost or be unsecured—potentially exposing customers' personally identifying information (PII). In addition, loan officers must manually key in data from them or use one of the platforms above to do it for them, which can introduce data errors.

First-generation platforms, which typically rely heavily on manual processes, don't provide data verification and validation, resulting in excessive errors. According to a 2022 Wolters Kluwer survey of 3,000 auto industry professionals, between 25-50 percent of all deals have errors due to manual processes.

Complicating matters further, first-generation platforms don't provide data verification and validation—and they generate excessive inconsistencies between the original paperwork and the digital data; according to a 2022 Wolters Kluwer survey of 3,000 auto industry professionals, between 25-50 percent of all deals have errors due to manual processes. This has led to pervasive data inconsistencies across the automotive industry, especially for lenders. Integrations with these platforms cause their organizations to be bombarded with unvalidated origination data coming from a plethora of potentially unreliable origination sources, each with different forms, formats, and data standards. The result is countless exceptions that can't be handled via automation. Instead, someone at the bank needs to manage each one by painstakingly visually comparing scanned documents against the contract or lease agreement itself and the original credit approval, and fix errors so data can be consumed by automated processes (i.e., does the customer data say "Road" instead of "Street"?).

Exceptions are costly, slow processes, and delay funding decisions. This, in turn, frustrates both potential customers and dealers due to delayed funding approvals.

What's needed: Intelligent digital data capture and validation

For these reasons, exceptions are costly, slow processes, and delay funding decisions. This, in turn, frustrates both potential customers and dealers due to delayed funding approvals. Equally important, companies that have invested in automated workflows can't realize the benefits of these investments—inconsistent and highly variable data makes that impossible.

The good news is, by leveraging innovations in technologies such as machine learning—a type of AI that draws inferences from patterns in data—data quality issues can be largely eliminated. Machine learning refers to the ability to train a machine on a document to recognize key data points and leverage additional business logic (such as "if-then" statements), and data modeling and AI to verify data exactness and completeness.

AI and machine learning are game changers for the automotive industry because they can be used to approach the highest levels of data accuracy and validation of digital data from documents, by enabling:

- **Intelligent data extraction** – where data is accurately extracted from an identified set of data points within a document
- **Intelligent data validation** – to ensure asset pool completeness by confirming that the right digital loans are being pooled and comparing extracted data to an external source, such as a data tape
- **Intelligent data certification** – to confirm that no modifications have been made to the extracted data once the data set has been tamper-sealed

Having digital contract data that is accurately extracted, validated, and certified unlocks new ways of doing business end to end. For example:

- **Lenders** can fearlessly consume digital loan document data, stream it into their digital processes, apply automated decision-making, and enable fact-and-rule-based loan decisions in seconds
- **Dealers** can find out whether a loan request is approved or denied while a client waits mere moments, resulting in happier clients and dealers, as they can obtain funds the same day
- **Banks** can offer visibility across the portfolio, transparency in lifecycle management and verified data pools, and insights for investors and rating agencies—all of which enable quicker access into the secondary market

Reaping the benefits of AI and machine-learning-enabled data capture

Because AI-enabled machine learning models can pull highly accurate, trusted data directly from the actual paper and electronic loan documents, lenders can leap-frog over issues that have long made automated eContracting and funding impossible. With access to trusted data, they can enable straight-through processing of loan requests, which benefits all parties. For example:

- **Lenders** can fund faster without the risk that a manual review process will reveal the asset does not comply with approval parameters and policies
- **Consumers** can get approved faster—from days to seconds—which increases customer satisfaction and the likelihood of making a purchase
- **Dealerships** can close deals efficiently and get funded faster—all while providing a hassle-free buying experience consumers want today
- **Banks** can vastly reduce operating costs and start to develop relationships with consumers—something they have long wanted to do but couldn't with traditional ways of doing business
- **Loan officers** can work far more effectively, which allows them to process more loans faster

Datalytics for the automotive industry: Delivering trusted, verified data for the lending lifecycle

As providers of industry-leading eVault technology for the creation, secure storage, and easy access to authoritative documents, Wolters Kluwer is uniquely positioned to solve the digital data issues plaguing automotive financing.

eVault technology is already used by hundreds of businesses in the automotive industry to secure the final, transferable, authoritative copies of legal documents such as contracts—it is already a seamless part of their processes. An extension to an eVault is Datalytics, a new solution that enables automotive industry providers to intelligently extract data directly from the live, authoritative, and ancillary documents in the eVault, validate and certify it, and move it downstream as trusted, accurate data. They can then apply analytics and business rules to it to, for example, automate loan decisions, processes and more.

This provides a huge advantage for our users, as now they have a single solution for dealing with paper documents that they can easily weave into their digital lending lifecycle management processes from lender to securitization downstream. Using their trusted eVault solution provider—the authoritative copy holder—as a trusted source for accurate digital data, they can make huge leaps ahead in enabling a seamless, end-to-end process for automotive financing.

As shown in Figure 1, all of this is built into a single platform where all data management, workflows, and services across the lifecycle are seamlessly connected and intelligent. This vastly simplifies the enabling technology and user experience for all parties. And because Datalytics is built into the platform, it's continuously and intelligently inspecting data and learning as it goes; this produces ever-greater efficiencies and accurate automation in the contract management lifecycle.

Business processes supported by datalytics

Figure 1: Business processes supported by Datalytics

Solving data quality issues, once and for all

There's no need to have people manually key in data, which is prone to human error. Rather, Datalytics uses machine learning to intelligently capture and validate data with higher efficiency and greater accuracy. Machine learning is then used to ensure that data is certified and compliant.

Figure 2 summarizes the processes supported by this new solution. Specifically, once a contract is executed, it is eVaulted as the one-and-only authoritative copy. The contract is then run through an intelligent data extraction service executed by data scientists at eOriginal, assigned a level of confidence using intelligent technologies, and passed back to the eVault for safe keeping. Unlike traditional OCR services, eOriginal uses AI-enabled contextual learning to understand the asset type and the data itself to validate that it is what we say it is.

The machine learning models used to drive this process continuously learns and gets smarter over time, resulting in ever-improving accuracy levels.

With Datalytics, users enjoy the highest levels of data accuracy. As a result, they not only receive their digital data, but also a confidence level assigned to it. The data can be treated as authoritative data, just as the eVaulted documents it came from are treated. Data sets are then tamper-sealed, encrypted, stored, and passed back to the lender in an easily-consumed format for their use—for instance, to make loan decisions, apply analytics and business rules to automate decisions, run reports, generate audit trails, and feed into a workflow or another system.

The next stage of evolution is to add business logic on top of the extracted data, as this will further advance automated intelligent workflows.

In the near future, Wolters Kluwer plans to add business logic on top of the data that is extracted that will further advance automated intelligent workflows.

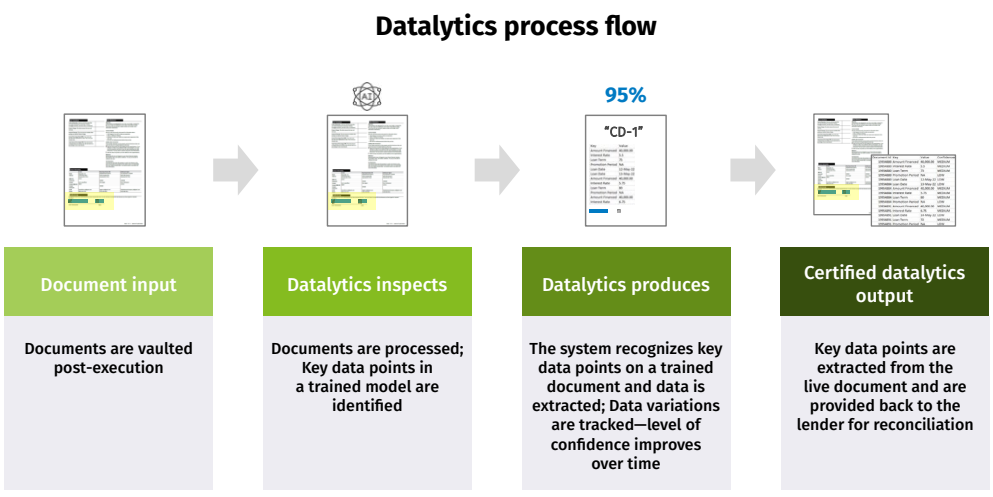


Figure 2: Datalytics business process flow

What is eVaulting?

Within the context of digital lending, eVault technology works by permanently binding electronic signatures to a document and creating a tamper-proof audit trail that demonstrates ownership and asset certainty. The process of eVaulting a document within a secure, trusted environment fulfils the legal and regulatory requirements for uniqueness and negotiability of the document as a digital financial asset. These compliant Digital Original® assets are often referred to as an 'Authoritative Copy' or 'Transferable Record'.

As interaction with the document occurs throughout its lifecycle, the eVault also enables the owner or secured party to control the access rights to the asset and tracks all activity regarding the asset—from signing, maintenance, sale, pledging, collateralization and securitization through to its ultimate disposition or destruction.

Realizing the benefits of Datalytics today—and tomorrow

With AI and machine learning delivered as part of credit assessment or funding workflow, organizations across the funding lifecycle can approach the highest levels of digital data accuracy and validation. This level of accuracy is a digital disruptor for every other technology on the market today because nothing else even comes close. Lenders and their ecosystems can instantly leap from cumbersome paper processes to digitally transformed, fully automated ways of doing business. When this happens, everyone benefits by:

- Eliminating the costs and risks of manual data entry from paper documents
- Increasing the speed, efficiency, and accuracy of data digitalization
- Introducing automation to their lending lifecycle processes earlier and with confidence
- Reducing the cost and resources needed to process, manage, and fund loans
- Having a high level of confidence of booked data, which enables trust in automated systems

Unlocking the power of digital data

This AI-enabled process breeds trust and confidence in digital data for the automotive industry—and this confidence unlocks the power of data for lenders. Now they can quickly and confidently pull it into backend systems and processes and drive the automated processes for fully digitalized automotive financing. For example, users can leverage trusted data in support of their secondary market activities and internal processes or workstreams, such as reconciliation and post-close audit.

As the solution evolves, users of Datalytics will be able to apply AI and machine learning to a trained model to introduce document understanding and business logic (such as "if-then" analysis). This will enable automated loan decisioning and approvals, for instance.

Transforming the future of funding workflows

Looking ahead, we anticipate that the next frontier Datalytics will transform is funding. To fund deals, lenders also need to verify the existence of all required ancillary documents related to a contract and the data on these documents. For example, if a gap policy was sold and financed on the retail installment agreement, the lender needs to verify that they have the gap policy document. Use other documents provided in support of an application such as stipulations—now you can extract and use for additional process automation and decisioning.

Today, lenders need a human to pull up all these document images, compare them to information on the contract, and verify that the name, address, and other details on the supporting documents are the exact same as what's on the contract. With Datalytics, funding automation opportunities exist with data extracted from documents, and verified and be compared using machine learning (see Figure 3). Lenders will no longer need human eyeballs doing the comparison—the machine learning will do the comparison for them and assign a level of confidence.

Datalytics integration with lending origination system (los)

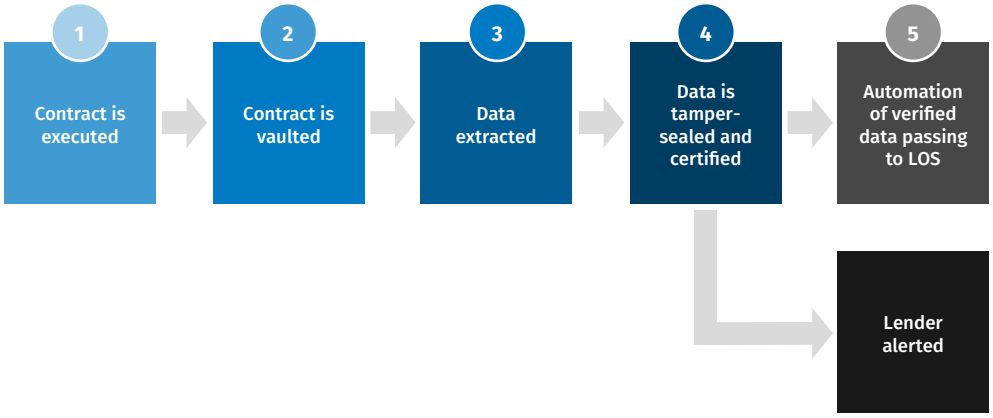
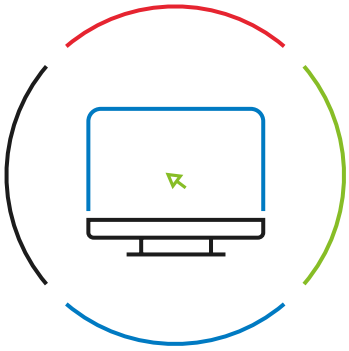


Figure 3: Datalytics integration with lending origination system (LOS)



To get started, visit Wolters Kluwer eContracting solutions for more information about taking your auto loan processes digital.

Key takeaways and final thoughts

With Datalytics, users can finally access trusted data that's always ready to be consumed by their investments in process automation. Rather than having people manually key in data, which creates human error and exposes PII to potential breaches, Datalytics intelligently captures and validates data with enterprise-level efficiency and accuracy. Machine learning is then applied to ensure that data is certified and compliant.

The big question every stakeholder in the auto financing lifecycle needs to be asking now is, "How and where can it be used in our business?" We recommend the following five actions you can take to get started and ensure your success:

- Take inventory of their existing funding lifecycle and document current document processes, workstreams and tools
- Identify process and workflow bottlenecks, where humans are keying in data, and potential sources of PII risks
- Envision and sketch out an ideal, automated funding lifecycle
- Prioritize where to focus investment to realize your biggest potential return on investment
- Learn more about Datalytics and how it can fit into your current and future IT and solutions landscape

About Wolters Kluwer Governance, Risk & Compliance

Governance, Risk & Compliance is a division of Wolters Kluwer, which provides legal and banking professionals with solutions to help ensure compliance with the ever-changing regulatory and legal obligations, manage risk, increase efficiency, and produce better business outcomes. GRC offers a portfolio of technology-enabled expert services and solutions focused on legal entity compliance, legal operations management, banking product compliance, and banking regulatory compliance.

Wolters Kluwer (WKL) is a global leader in professional information, software solutions, and services for the healthcare; tax and accounting; governance, risk and compliance; and legal and regulatory sectors. We help our customers make critical decisions every day by providing expert solutions that combine deep domain knowledge with specialized technology and services. Wolters Kluwer reported 2021 annual revenues of €4.8 billion. The group serves customers in over 180 countries, maintains operations in over 40 countries, and employs approximately 19,800 people worldwide. The company is headquartered in Alphen aan den Rijn, the Netherlands.

For more information about our solutions and organization, visit **WoltersKluwer.com.**