

A tidal wave of global regulatory updates are pressing organizations to bring better control and efficiency to how they manage their customer and vendor contracts. In order to sufficiently respond to regulatory demands, organizations have a pressing need to digitize their contracts so key contract information can be searched, retrieved and analyzed at a moment's notice.

People, process and technology – the key to contract digitization

Artificial intelligence (AI) technologies, such as machine learning, are very helpful in identifying and capturing important information including terms, pricing, renewal dates and entities in contracts, and converting the information into structured data. However, human review to assess the accuracy of data extraction is often necessary and cannot be undervalued. Ultimately, achieving the optimal blend of people, process and technology will help organizations successfully transform their contract management programs in today's digital era.

Regulations that will precipitate contract digitization

- ▶ IBOR transition to ARR: In July 2018, regulators and industry groups launched an intensified, carefully coordinated global push for financial services institutions to recognize the pressing circumstances surrounding interbank offer rates (IBORs), and hasten efforts to phase out products referencing IBORs and transition to alternate reference rates (ARRs). Over \$300 trillion in financial investments linked to IBORs may be subject to amendment. Any existing contracts or transactions linked to IBORs with maturity dates after 2021 will require either fallback language or contract amendments.
- ▶ QFC stay rules: In January 2018, the US Secretary of the Treasury issued a proposed rule that would establish new record-keeping requirements for qualified financial contracts (QFCs). The rules, applying to global systemically important banks (G-SIBs) and many of their affiliates, will require contract amendments and provisions to prevent immediate cancellation or termination if an institution enters into bankruptcy or resolution. The QFC stay rules are expected to apply proactively to all new QFCs after the date the regulation is made active, and retroactively to all prior QFCs if the triggering event occurs.
- ► The new lease accounting standards: The new Accounting Standards Update (ASU) from the Financial Accounting Standards Board (FASB) goes into effect on 1 January 2019. Unlike current generally accepted accounting principles (GAAP) which require only capital leases to be recognized on the balance sheet the new ASU will require recognition of both capital and operating leases. The FASB is requiring lessees and lessors to apply a modified retrospective approach for leases existing at, or entered into, after the beginning of the earliest period presented in the financial statements.

How EY can help

By harnessing our knowledge in data mining, artificial intelligence and document analysis, we provide end-to-end services to facilitate organizations' contract digitization efforts. Our approach focuses on using advanced AI technologies to achieve automation and efficiency. However, we also embed human validation in our workflows to validate data and complete abstraction – thus enhancing the precision and quality of our end products. To achieve cost savings, we deploy a scalable and contingent workforce of contract professionals who are centrally managed and coordinated by our seasoned leadership team.

We are mindful of the importance of interoperability with contract management systems. Our work doesn't stop at extracting required fields and clauses from unstructured data sources. We collaborate with businesses and contract management teams to normalize the structured data output so it can seamlessly be imported into the contract management systems.

EY digital contract review framework

Data ingestion and triage

- Use machine-learning technologies to increase analysis coverage from samples to the full population of contracts impacted
- Determine the level of automation for categorization based on the complexity of contracts and cost considerations





 Extract texts and metadata using customizable and pre-developed algorithms

 Facilitate each algorithm's iterative learning with human input



Data categorization

- Perform in-depth human review with the assistance of technology to increase efficiency
- Leverage analytics and machinelearning technologies to extract key contract information
- Enhance the precision of algorithms through human validation
- Tailor workflows based on the organization's unique operations and IT environments
- Develop contract clause library using the extracted data



Reporting and data export

Calibration

and review

- Produce interactive dashboards with actionable insights and management reports with regular status updates
- Generate structured data to be imported into contract management system



management system

Why EY?

People

- Scalable, low-cost contract resources supported by experienced management
- Rigorous pre-screening for competency
- Sector experience and knowledge of local culture and regulatory landscape

Process

- Embed human validation in the review process to increase the success rate of algorithms
- Focus on communication and efficiency in workflow designs
- Adopt a globally consistent methodology to facilitate collaboration
- Provide regular feedback and reporting for cost transparency

Technology

- Deliver efficiency through automation
- Leverage customizable and pre-developed algorithms to save time and cost
- Interoperability with contract management systems

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EYG no. 011860-18Gbl BSC no. 1810-2902857

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