TATA CONSULTANCY SERVICES

Building on belief

A machine-first approach to digital finance

Abstract

Businesses are under increasing pressure to make quick yet informed decisions in response to volatile market forces in the post COVID-19 era. While big data offers easy access to large amounts of information, one of the biggest challenges for companies today is parsing through the massive data troves, identifying what is relevant, and determining what to do with that relevant data.

By employing prescriptive analytics to assess business intelligence data, companies can drastically improve their financial performance. They can deliver deep visibility into the business, enabling companies to prescribe the most optimal course of action by turning data into forward-looking insights, thus maximizing operational efficiency and lowering cost of ownership. This article discusses the value of prescriptive and actionable analytics in a machine-first approach to achieving digital process optimization.

Digital process excellence in finance requires informed decision-making

COVID-19 has led to an unprecedented need for informed decision-making to strengthen operational efficiency, control costs and realize strategic goals. Additionally, to reach hyper-automation, organizations need to have a granular, real-time understanding of their systems, and CFOs need to have a transformation mindset at every step, incrementally and perpetually.

For the finance function, this requires a straight-through processing of data from business events to the balance sheet, radical changes in adaptive planning, and a Machine First™ approach to enable faster time-to-market of new ideas, superior user experience, and business model innovation that addresses shifting markets.

The machine-first approach

Part of a Machine First approach toward digital process excellence, analytics enables organizations to re-envision the value stream by bringing classic and emerging technologies together with data at their core. Actionable and prescriptive analytics build on the foundation of process mining, a technique that extracts digital footprints from core systems and visualizes end-to-end processes, enabling an organization to visualize, monitor, and improve actual process flows.

In a Machine First enterprise culture, the workforce is empowered to give machines the first right of refusal. Operational responsibilities are automated end-to-end, and tactical activities and decision-making are dynamically orchestrated through a human interface, where necessary. This approach allows the workforce to focus on activities with the highest value-add, such as exception management and root cause analysis.

The role of prescriptive analytics

Prescriptive analytics provide business-relevant insights from enterprise data and enable end-to-end workflow automation and decision-making support, resulting in intelligent responsiveness and digital process excellence.

Real-time process performance and compliance insights, with greater automation, can enable better resilience and responsiveness in turbulent times, and shift the workplace's focus to higher-value improvement initiatives.[1]

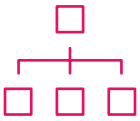
For finance organizations, analytics generate advanced insights that lead to pinpointing automation potential. Outcomes can become intelligent and dynamic triggers for fully automated workflows, single-click decision-making support, or in managing a virtual workforce of robotic process automation (RPA) bots.

For example, prescriptive analytics can:

- Detect overdue payments based on event log analysis in an ERP application or other source systems.
- Uncover patterns in payment behavior specific to a client over time through machine-learning algorithms.
- Allow for adaptive decision-making. For instance, it can treat the identified client differently and trigger an alternative workflow to bring a human in the loop. Or it could activate an RPA bot to automatically send a payment reminder to the client upfront.
- Visualize the impacted KPIs contextualized for users through digital dashboards.

Insights from prescriptive analytics can deliver high value in five key applications:

Working capital optimization



Process improvement and standardization

End-to-end automation

Auditing and compliance

Digital transformation and strategic initiatives

[1] *HfS Blueprint Report Smart Analytics - 2018*

Working capital optimization

To maintain frictionless processes, it is critical to identify and address root causes for suboptimal working capital, typically found within procurement, vendor management and AP activities. Prescriptive and actionable analytics can help optimize working capital in these areas:

Procurement: Aids the management of optimal inventory levels and reduces manual changes to payment terms in local geographies by identifying deviations and automating corrective action or providing decision-making support.

Vendor management: Helps manage vendor reliability by reducing missing order confirmations, reducing early or late deliveries, and enabling full contract utilization.

Accounts payable: Incentivizes optimal payment behavior by signaling target deadlines and automating corrective action to help increase the ratio of on-time payments and reduce cash discount losses.

Cash management: Helps automate a full view of cash outflow and inflow, enabling full consumption of common transactional data to help provide rich insights, and predictive analysis and reconciliation capabilities.

Use case: Working capital optimization

A global packaging company leveraged Celonis, a process analytics and intelligence platform, to generate valuable insights and visibility across the order-to-delivery value chain. The insights across open order tracking, shortfall detection, inventory aging, and lead time visibility generated more than $150 million in working capital, and improved on-time delivery (OTD) by 93%.

Process improvement and standardization

Process discovery and analysis help organizations understand process deviations in local geographies or business functions, their root causes, and impact on KPIs. Prescriptive and actionable analytics can tackle these root causes and apply intelligent triggers in the release, purchase order (PO), or delivery creation process to reduce average throughput times, improve operational efficiency, and drive process compliance.

Continuous monitoring and intelligent triggers can identify trend changes to activate automated workflows and proactively address process deviations such as:

- Maverick buying
- Customers with frequent delays, to initiate analysis or contact
- Suppliers with increased reliability issues, to initiate analysis or contact
- Reasons for decreased automation rate in a process step

Use case: Cognitive procurement platform

A global aluminum manufacturer deployed TCS' Cognitive Procurement platform that analyzed 14,000 procurement transactions, identifying a 12% savings potential from $162 million total spend, as well as behavioral patterns associated with three vendors that consistently drove exceptions over a $40 million spend.

Drive end-to-end automation

Process discovery and analysis contribute to improved rate automation in finance by validating automation opportunities. However, true end-to-end automation can only be achieved through the ability to mobilize real-time business insights across the enterprise.

Use case: Global cognitive automation operating model

A global consumer packaged goods customer undertook an operations transformation by setting up a global cognitive automation operating model that included an automation hub team, process discovery, and agile bot delivery processes on a public cloud with a command center for bots operations. The company has been able to deliver 100+ bots globally within a short span of time, saving over half a million human hours of work.

Improve support for auditing and compliance

Prescriptive and actionable analytics can ease auditing and compliance activities by easily collecting, visualizing and benchmarking real-time insights. This can reduce internal and operational audit planning and testing, and keep the focus on critical process deviations. These analytics also allow the internal and operational audit teams to perform more preliminary activities offsite ahead of the audit, which can enable a less time-consuming outcome for audit teams and local markets.

Controllership

Prescriptive and actionable analytics can help finance and business controllers perform more effectively as real-time dashboards allow for live drill-downs to facilitate discussions. In addition, they can help support:

Country balance sheet reviews: By delivering financial statements with local GAAP reporting delivered to provide various in-country financial analytics and insights.

IFRS compliance: By enabling financial analysis based on IFRS compliant financial data. This is critical for making data corrections in source systems via a revised definition of order management, contracts, and service agreements.

Regulatory reporting: By supporting data readiness by key data dimensionality necessary for meeting demands of regulatory reporting.

Continuous control monitoring

Prescriptive analytics can assist in adherence to regulatory requirements and help drive internal compliance through continuous control monitoring. Intelligent triggers can also support human decision making, or fully automate workflows to help meet target dates or deadlines in the following ways:

- Delivery dates promised to customers
- Credit check deadlines
- Delivery document deadlines
- Service level agreement (SLA) IT tickets
- Cash discount deadlines

Use case: Cognitive compliance monitoring

A large airline company deployed TCS' Cognitive Intelligence platform technology that analyzed travel and expense (T&E) transactions of 85k+ employees and tagged high-risk or non-compliant transactions/employees to realize a savings potential of $8 million annually.

Drive digital transformation agenda and support strategic initiatives

Real-time insights in process performance measurement against process KPIs help link corporate strategy objectives to operational performance and vice versa. This can further drive digital transformation as they highlight operational bottlenecks, activities with low automation rates, and behavioral patterns. Prescriptive and actionable analytics insights may also prove valuable to many strategic projects such as:

System migration: Leverage analytics to highlight gaps among systems to ensure an optimal blueprint for a new ERP system rollout. Hypercare support and post-implementation reviews can help process harmonization.

Global business services and business process outsourcing: Prescriptive analytics adoption can help in the transformation from a functional to a standardized process-oriented organization by providing fact-based decision criteria that help with sizing and commitment definition toward the business.A detailed understanding of local process deviations, sharing best practices across markets, and shared services monthly market reviews may help drive further process harmonization.

Digital finance transformation has gained momentum in recent years and is able to positively impact operational efficiency and process compliance. Finance organizations with a machine-first approach use prescriptive and actionable analytics as a key enabler to drive end-to-end automation. In addition, its in-depth insights into process performance can be used to support audit and compliance activities and provide input for system migrations and sourcing efforts.

Prescriptive and actionable analytics as an organizational approach

Solution providers are increasingly integrating prescriptive and actionable analytics technologies into unified platforms or in technology ecosystems, and the convergence of automation, AI, and analytics is becoming a reality.

Organizations can increase the value of these analytics when scaled across the enterprise. Deployment across strategic, tactical, and operational levels can enable the organization in a multitude of ways, including:

- Executive leadership: Dashboards can provide detailed real-time process monitoring of strategic KPIs, enabling faster linking between operational performance and strategic objectives.
- Center(s) of excellence and business functions: Performing real-time analysis focused on deviations can provide insight into operational metrics as well as root cause identification to drive focused improvement initiatives and support decision making.

Actionable insights with dynamic end-to-end automation

Automation, AI and analytics are rapidly converging to provide opportunities to drive value through digital transformation. The path toward digital process excellence driven by a machine-first approach includes prescriptive and actionable analytics that finance organizations can use to address immediate business concerns or as a key enabler in the digital transformation journey. By giving finance users the ability to monitor and improve processes, prescriptive and actionable analytics can enable everyone in an empowered, self-organized company to become a process improver and contribute to digital process excellence.

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Luc van Bommel is part of the Finance & Shared Services Transformation Consulting practice and has more than 10 years' experience in IT risk management, business transformation and automation.

Before he joined TCS, he was at KPMG as manager and successfully led several business transformation and operational excellence engagements in various industries with a focus on the adoption and governance of digital technologies.

Van Bommel has an MSc. degree in International Business Strategy & Innovation from Maastricht University and an MSc. degree in IT auditing from Tias Nimbas Business School. He has a Lean Six Sigma Black Belt qualification from University of Amsterdam.

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Lakshmi has 18 years' experience in the IT industry. In her current role, she is responsible for strategy, growth, profitability, and customer success. She has led and played a crucial role in various strategic initiatives in TCS including the MFDM™ (Machine First Delivery Model) framework that reimagined the approach to digital transformation for TCS and its clients to deliver exponential value.

Lakshmi's also had successful stints managing large transformation programs for Fortune 100 clients in the U.S. and Europe. She holds a Bachelor of Engineering degree from the Government College of Engineering, Anna University, and the Senior Management Program at the Indian Institute of Management, Ahmedabad.

Awards and accolades

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