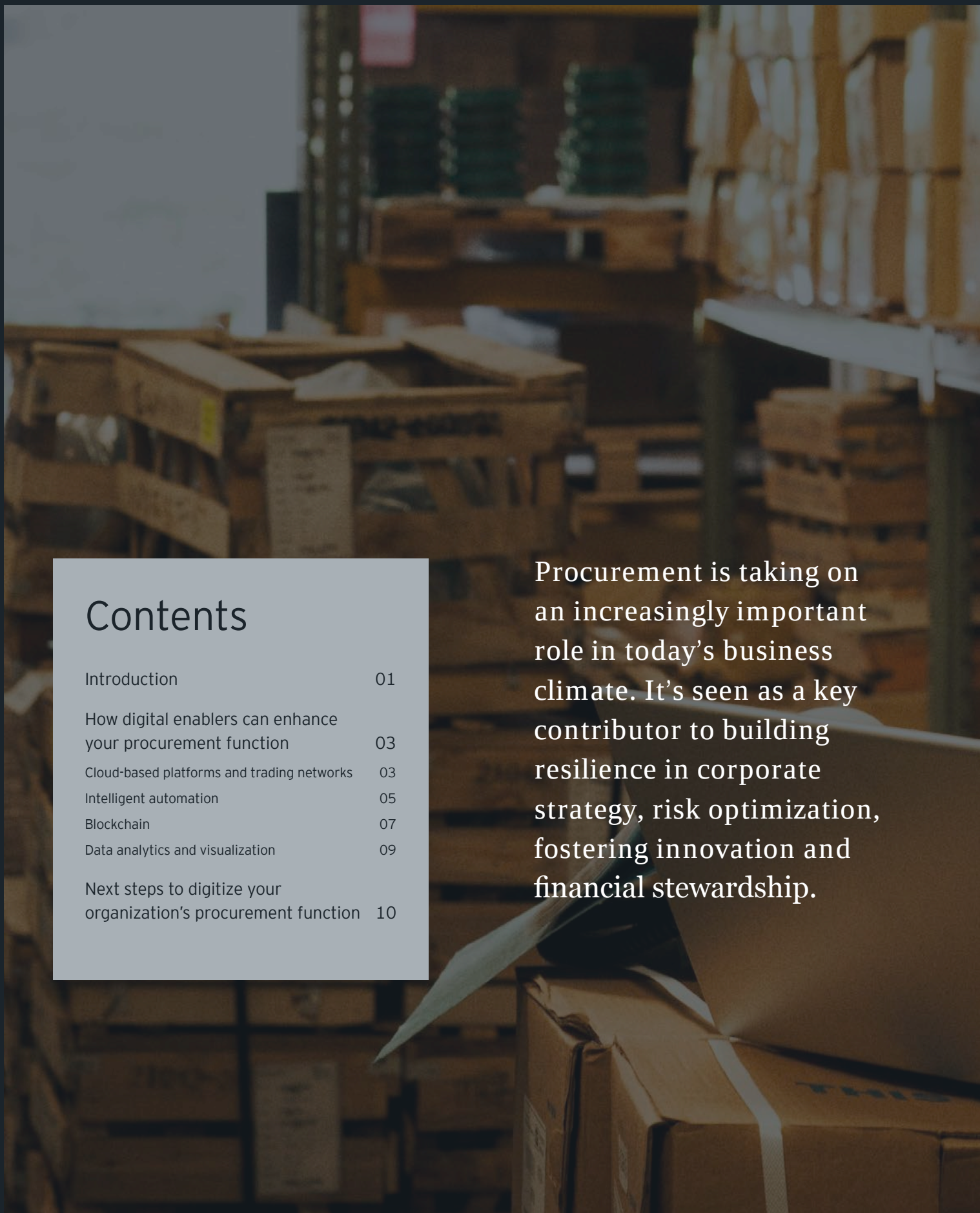
Building a better working world

The journey to procurement digitization

Using digital enablers to bolster your organization's procurement capabilities



Contents

Procurement is taking on an increasingly important role in today's business climate. It's seen as a key contributor to building resilience in corporate strategy, risk optimization, fostering innovation and financial stewardship.

Procurement's increasing prominence has also increased visibility into the challenges organizations face in limiting the growth of their capabilities. These challenges include:

1. Inaccurate, incomplete or missing data, which can lead to poor supplier risk management and pricing decisions
2. Inefficient or outdated procurement processes, which can result in increased effort and cost across the "source to pay" (S2P) lifecycle
3. Lack of cross-functional integration, which can cause a lack of stakeholder buy-in for procurement decisions
4. Competitors adopting digital enablers for procurement, increasing visibility across their supply chain, which could lead to an organization losing market share

With an increasingly competitive and unpredictable business climate, organizations need to understand current complexities in the procurement ecosystem and adopt enablers that reduce risks, unlock efficiencies and ultimately improve their bottom line.

It's well established that organizations can mitigate these risk factors and challenges by adopting digital enablers, which include cloud-based platforms, intelligent automation, blockchain, as well as data and analytics.

How digital enablers can enhance your procurement function

Cloud-based platforms and trading networks

There is a compelling case for implementing a cloud-based S2P solution:

- Procurement is on the cusp of fast, hard-to-predict change, requiring an adaptive platform.
- Consumer-like experience improves requisitioner control and satisfaction.
- Pace of innovation is accelerating and is largely only available in the cloud.
- Buyer/supplier networks are extending beyond procurement

Cloud-based platforms – external servers that are used to compute power and storage – can be applied to develop trading networks, which are cloud-based procurement and invoicing applications focused on procurement optimization. These trading networks can connect buyers and sellers, enhance supplier management and enable more efficient spend management across purchase orders and accounts payable records.

The following table outlines how cloud-based platforms can positively impact an organization's procurement capabilities.

80%

A leading financial institution providing insurance and financial products around the world initiated an enterprise-wide global deployment of an e-procurement solution.

Benefits included automation of over **80%** of their procure-to-pay (P2P) processes, **increasing compliance to processes by 80% and a footprint of more than 35 countries** able to capitalize on the combined purchasing power.

Table 1. Value of cloud-based platforms and trading networks to an organization's procurement capability

Value to an organization	**Activates the corporate strategy**	▸ Leverage trading networks to find the right partners for initiatives ▸ Expand spend coverage, process coverage, and user coverage while driving operational efficiency
	Optimizes risk	▸ Utilize cloud platforms for cross-functional team reviews of supplier performance ▸ Enables agility throughout the procurement value chain ▸ Less risky than on premise solutions
	Drives internal and external innovation	▸ Improved access to cloud-solution innovation ▸ Enhanced collaboration with suppliers and partners through online marketplaces ▸ Improved user-experience (i.e., "Amazon-like")
	Leverages big data	▸ Out-of-the box analytical suites improves ability to interpret multiple dimensions of information ▸ Improved visibility and better decision making ▸ Gain better insights into purchases across all systems
	Drives financial stewardship	▸ Lower transactional costs ▸ IT spend reduction ▸ Effective spend management ▸ Enable invoice and commerce compliance and automation ▸ Maximize system utilization and value

By implementing an optimized cloud-based platform, companies have realized significant benefits across their spend — including reductions in indirect spending and realized savings due to increased spend coverage — and across their procurement processes — including sourcing efficiency improvements, procurement cycle time improvement, reduction in processing time, safety and regulatory compliance in procurement.

Intelligent automation

Intelligent automation (IA) can be used to automate high-volume, complex and/or multi-step data handling actions, in addition to capturing and interpreting existing applications and triggering responses with other systems. For example, chatbots — rules-based service powered by artificial intelligence — can converse in human terms and inject key information, intelligence and online services as the organization requires.

Table 2. Value of intelligent automation to an organization's procurement capability

Value to an organization		**Activates the corporate strategy**	▸ Redistribute the workload of procurement talent by focusing on bigger value efforts aligned with executive priorities ▸ Supports delivery of an omni-channel experience to internal customers/ stakeholders and suppliers of Procurement ▸ On-demand and 24x7 access to services
		**Optimizes risk**	▸ Enables fully maintained audit trail for compliance by improving consistency, control and traceability ▸ Significant increase in process accuracy with on time delivery, reliability and predictability ▸ Significant increases in process accuracy/ reduction in errors with on-time delivery, reliability and predictability ▸ Drives consistent user experience (of staff, customer and third-party groups)
		**Drives internal and external innovation**	▸ Integration with machine learning technologies provides opportunities to continuously find new ways of using bots and automation ▸ Chatbots can be evolved to add new scenarios/queries from users ▸ AI engine allows interpretation of user intent to service their demand
		**Leverages big data**	▸ Capable of consuming and processing larger, disjointed amounts of data ▸ Leverages artificial intelligence engine and knowledge databases (which are continually evolving / being updated), in order to respond to user queries
		**Drives financial stewardship**	▸ Cuts data entry costs by up to 70% (~1/3 the cost of an offshore FTE) ▸ Quick ROI with a payback period that typically occurs within less than a year ▸ Reduces lead times with real-time fulfilment of queries, and self-service functionality

Organizations that implement intelligent automation across their procurement function realize significant benefits, including streamlined procurement processes such as contract creation and invoice validation, and significant overall reduction in manual effort, which allows people to focus on higher-value time to non-repetitive tasks.

Real-world examples include global mining companies, in which bots are extensively used to transform their procurement master data prior to enabling new suppliers on their trading network. The resulting improved data quality is instrumental for intensive processes, faster onboarding of suppliers and increased accuracy in tasks such as material replenishment runs.

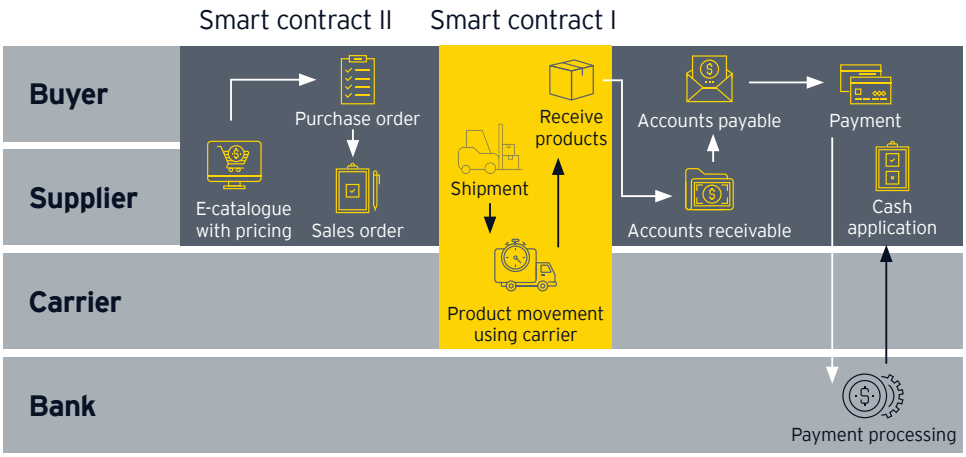
A leading telecommunications provider wanted to increase active usage of their enterprise collaboration ecosystem across their large employee base (>50,000 employees) around simplifying procurement access. They deployed a **customized chatbot** on the company's messaging platform, which was able to retrieve and distribute information more efficiently to employees. In addition, the chatbot's conversational user interface provided a **much-improved employee experience, which led to increased employee engagement across the company's ecosystem**.

Blockchain

Blockchain is a distributed ledger that receives, validates and permanently stores transactions. It has structural features that can be used to optimize the procurement process. Blockchain technology can be used to safely share information, such as the origin and authenticity of goods. This allows for multiple parties — whose entries are verified and therefore trusted — to form a public, visible record so all stakeholders have access to key data around goods and services.

Blockchain technology can also be used to develop smart contracts for the P2P process. In the below figure, we visualize how multiple parties can use blockchain-enabled smart contracts to administer the transaction and exchange of goods and services.

Figure 1. P2P process with smart contracts



In the figure to the left, multiple smart contracts are used to facilitate the business relationships between key parties, with all required information being contained in the blockchain. Smart contracts enable efficiency and agility wherever products, information or payments change hands.

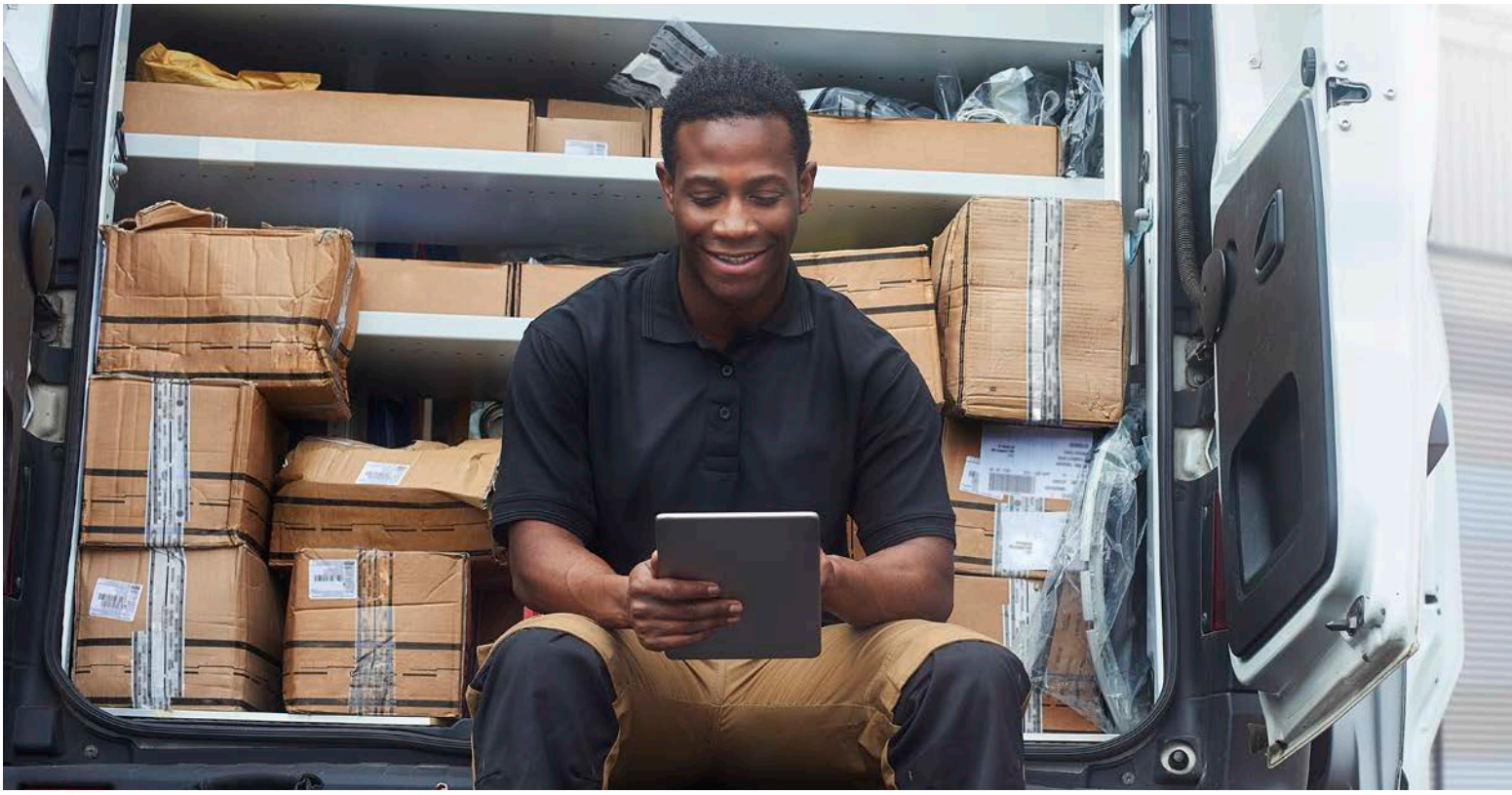
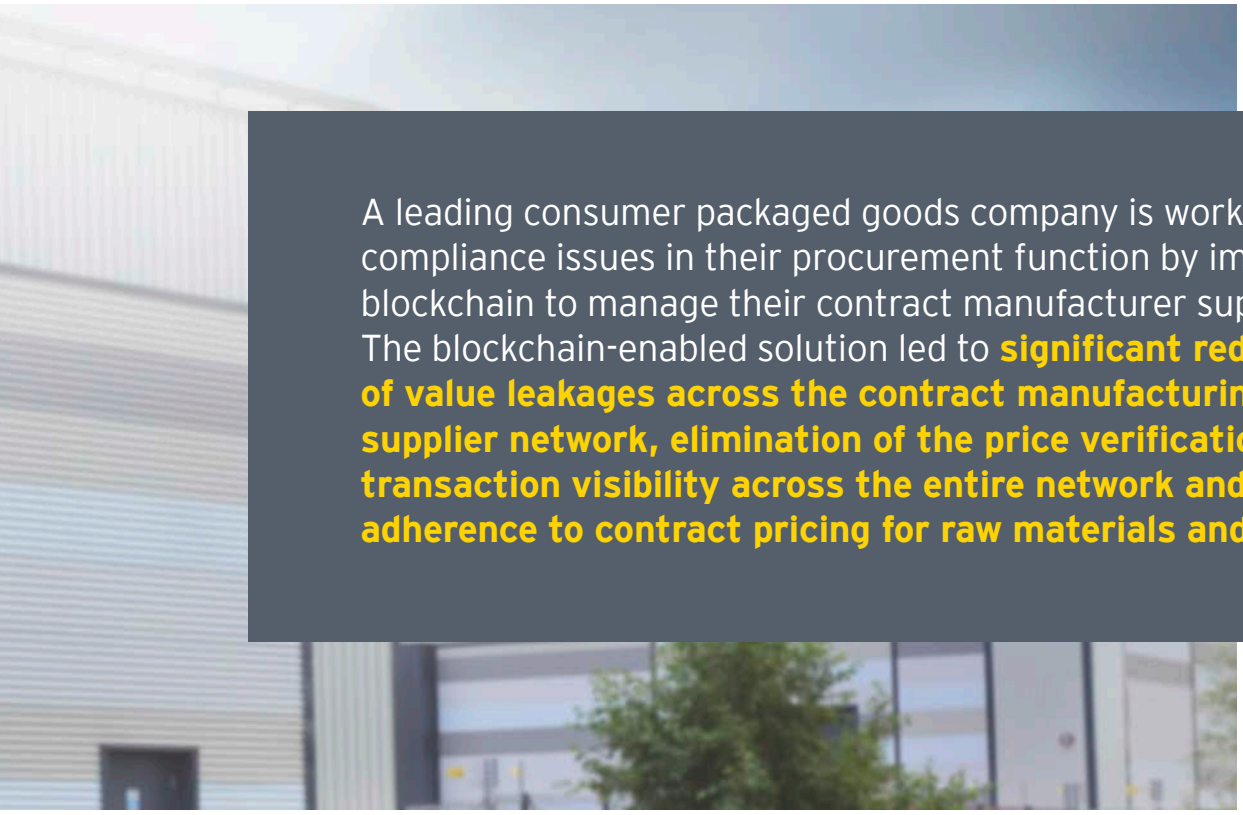


Table 3. Value of blockchain to an organization's procurement capability

Value to an organization	**Activates the corporate strategy**	▸ Accelerates strategic initiatives by providing a secure, foundational backbone for commerce. ▸ Enables more capabilities to open up new markets and identify new suppliers while baking in trustworthiness.
	Optimizes risk	▸ Eliminates digital rights theft. ▸ Secured firewalls between smart devices. ▸ No central authority to control the transaction eliminates risks emanating from central failure.
	Drives internal and external innovation	▸ Integration with the Internet of Things creates a more secure connection between smart devices and machines. ▸ Enables "pay for performance" smart contracting and other agreements.
	Leverages big data	▸ Certifies and stores data from multiple sources in immutable blocks that can't be changed.
	Drives financial stewardship	▸ Enables lower transactional costs. ▸ Embedded finance increases security, control and processing time.



A leading consumer packaged goods company is working to reduce compliance issues in their procurement function by implementing blockchain to manage their contract manufacturer supply chain. The blockchain-enabled solution led to **significant reduction of value leakages across the contract manufacturing and supplier network, elimination of the price verification process, transaction visibility across the entire network and full adherence to contract pricing for raw materials and packaging**.

Data analytics and visualization

Data analytics can be used to automate and improve data cleansing, transformation and classification operations. Data visualization tools such as Power BI or Tableau can then be used to visualize data insights, which can unlock key benefits such as purchasing savings opportunities, compliance with organizational policies and contracts, an increasingly robust sourcing process, data-driven communications to stakeholders and increased negotiation power with suppliers.

Table 4. Value of big data and analytics to an organization's procurement capability

Value to an organization	**Activates the corporate strategy**	▸ Generates insights to enable strategy formulation.
	Optimizes risk	▸ Enables proactive understanding of risk exposure for each supplier and costs of risk. ▸ Facilitates mitigation planning to cur-rent supply chain risks. ▸ Monitors compliance levels consistently and continuously. ▸ Increases adherence to the organization's operational policies.
	Drives internal and external innovation	▸ Drives and increases revenue from supplier-driven innovation. ▸ Monitors, assesses and benchmarks supplier performance to enable feedback and improvement
	Leverages big data	▸ Reduces transaction processing cost and time. ▸ Optimizes payment terms. ▸ Improves cash flows. ▸ Measures actual P&L impact of sourcing initiatives. ▸ Increases ordering under the agreed terms of a contract and/or preferred vendor lists. ▸ Identifies root cause of product cost fluctuations.
	Drives financial stewardship	▸ Provides key data insights to enable productive negotiations. ▸ Increases supplier base rationalization. ▸ Increases spend coverage. ▸ Reduces cost of procurement as a percentage of spend. ▸ Monitors and improves days in payable.

An integrated oil and gas company experienced issues with free text orders (FTOs) – orders purchased without referencing material master agreements or rate sheets. The majority of material and services spend were FTOs (approximately 80%), which led to increased efforts to create specific POs and obtain approvals for the FTOs – approximately five times more rework on FTOs and twice as many approvals required – and caused delays in receiving goods. The company used **process mining to optimize their process execution**. The analytical activity included proactive monitoring of FTOs, creation of alerts and action items for key stakeholders, and flagging of process variations. **This resulted in reduced procurement costs and accounts payable processing time**.

Next steps to digitize your organization's procurement function

Organizations can digitize their procurement function by first assessing the current state of their procurement processes — including risk factors and challenges to the current state, identifying the ideal target state and then developing a roadmap to achieve the target.

The following steps can be used to develop a plan for procurement digitization:

Strategy review

Identify key business drivers and the impacts of digital disruption; review business strategy; correspond with key stakeholders to capture executives' perspectives.

Assessment

Match trend and threats to existing strategy; analyze internal customer satisfaction and complaints; engage in digital enablement/maturity assessment; conduct people and culture change readiness assessments.

Target state

Define and quantify target KPIs; align target state with organizational units; conduct workshops to develop a solution, including preferences and constraints; engage in a high-level redesign of procurement processes and define integration between processes.

Roadmap and business case

Develop a roadmap based on prioritized improvement areas to reach the target state; validate roadmap for business case calculation; calculate cost/benefit; conduct ROI analysis; develop a change management framework. executives' perspectives.

Gap analysis

Identify gaps between current and target state; prioritize improvement needs; define and develop target state model.

Organizations can use these digital enablers to transform their procurement function and stay competitive in a rapidly changing business climate. For more information on these digital enablers visit **ey.com/en_ca/consulting/supply-chain-operations**.

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