

DIGITALIZATION OF PROCUREMENT

As a data-rich business function, procurement is ripe for digital transformation

Procurement offices have heavily invested in their technology backbone—the data gathering side of the equation—to improve their transactional capabilities. And in fact, large implementation projects like Enterprise Resource Planning (ERP) system implementations or upgrades are still dominating IT investment budgets.

However, investment into data-driven applications—the data analytics and value creation side of things—has, so far, been rather small, despite these applications' potential to generate greater returns on investment by improving strategic purchasing capabilities.

With the pressure to continuously deliver year-over-year savings and diminishing returns from improving transactional capabilities, procurement will need to look at improving their digital capabilities to become a full, strategic partner in the organization.



For procurement, as with most other business areas, the impact of digitalization is driven by two components, availability of technology that allows more data to be collected and managed (the technology backbone) and technology that enables better use of data (data applications). Each digitalizes different functions.

Data systems, cloud-based storage platforms, and data-integration applications are all examples of the technology backbone. These primarily impact the operational aspects of the procurement function.

TECHNOLOGY BACKBONE		EXAMPLES
Data systems	ERP and procurement systems	SAP, Oracle, Sage, Salesforce
Data platforms	Cloud-based platforms that support storage of data from multiple systems in multiple formats including structured, semi-structured, and unstructured data	Amazon AWS, Google Cloud Platform, Microsoft Azure
Data availability	Applications that provide new ways for capturing new data sources, automation of processes, networks of connected devices (Internet of Things), and technology that supports the layering and structuring of data (Blockchain)	RFID, Robotic Process Automation, Internet of Things, Blockchain

Data applications and their underlying analytical functions, on the other hand, address strategic elements of the value chain. Examples of these types of applications include data visualization, data science (forecasting, predictive modeling, and machine learning), and data-driven applications that facilitate machine-to-machine, AI-based communication.

DATA APPLICATIONS		EXAMPLES
Data visualization	Interactive reports for data consumption typically presented at aggregated level or as KPIs that allow users to develop category strategies	Spend analysis and performance gaps
Productivity tools	Tools that automate data analysis steps using predictive models or machine learning to help users execute selected strategies based on data	Forecasting, demand planning, pricing and cost models
Digital products	Scalable applications that automatically execute strategies based on algorithmic interpretation of underlying data	Any application that makes decisions based on data, such as auto-buy functions, dynamic pricing applications, or spend classification applications



Commercially available cloud platforms offer a cost-effective means for procurement teams to gather existing data and develop analytical applications.

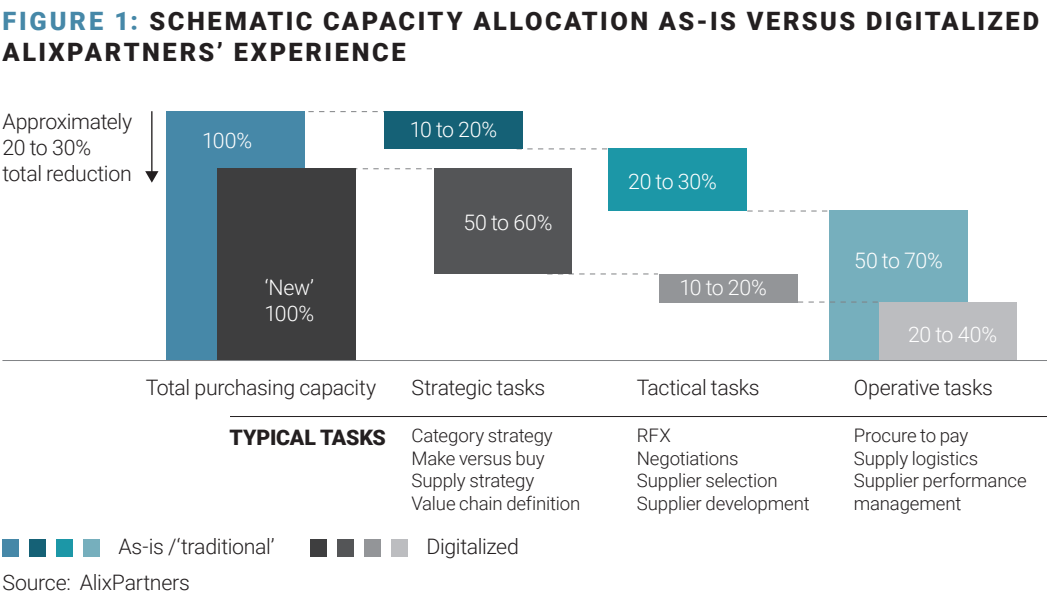
To date, businesses have prioritized investments in the technology backbone, in part because these investments have had the most immediate impact in improving processes. And many companies still have a pressing need to consolidate their data across multiple legacy systems to unlock the potential of digitalization. Data applications, by necessity, rely on this backbone to run their algorithms and provide meaningful results. The availability of data therefore is an obvious prerequisite to unlocking the value of that data.

But, with the availability of new, lighter-weight cloud platforms, investment into analytics is no longer linked to expensive new systems. Commercially-available cloud platforms offer a cost-effective means for procurement teams to gather existing data and develop analytical applications. If they are successful, the transformation will allow businesses to explore new models built on deeper relationships with their supplier base.

THE CASE FOR INVESTING INTO DIGITALIZATION OF STRATEGIC PROCUREMENT TASKS

Based on AlixPartners' experience, most procurement functions currently allocate only about 10 to 20% of their capacity to strategic tasks.

In our view, with investments into digitalization, companies can both decrease the time and resources dedicated to procurement, and also dedicate 50 to 60% of their capacity to strategic management of spend.



A frequently expressed rationale for still heavily focusing on the technology backbone, improving resource productivity, and the eventual downsizing of operative procurement, is that once the data is in good shape, the value of data can be unlocked through data applications. Such applications will then unlock additional savings. But in our experience, very few companies actually continue to develop digital applications after improving their technology backbone.

We see two main reasons why procurement functions are steering clear of investment into data applications. The first is that companies frequently become so fatigued by a long, disruptive, and costly implementation of a new ERP system that there is little appetite to invest into building its analytical capabilities.

Secondly, a limited understanding of data-driven applications and the benefits that they can bring has also limited investments in this area. Unlike investments into the technology backbone, they do not lead to known outcomes around future capability.

With the increasing pressure to deliver the cost savings and further shrinking of the profit pools, procurement will be forced to start looking at improving the strategic functions and develop new ways for generating value to the organization and its customers.

This view is reflected in the ambition of most chief procurement officers (CPOs) to take on a more strategic role in the organization and in the realization that this cannot be delivered by analyzing enormous spreadsheets with laboriously generated data from the ERP system.

TAKING ACTION TOWARDS STRATEGIC DIGITALIZATION

We believe that procurement should consider recent advances in lightweight data platforms, challenge the traditional reservations for investing into data application, and start experimenting with the data that is available to them to build the capabilities to support the transition to digitalized strategic procurement.

Specifically, procurement teams should consider developing data applications based on the data they have and make full use of their existing systems before investing into new systems. We think that taking a use-case driven approach to systems development will make it easier to understand the expected benefits and the requirements for the systems to capture and manage data.

Key actions towards strategic digitalization should be:

Bottom-up approach to digitalization – “If you don’t know what you are doing, don’t do it at scale”

An increasing volume of evidence shows that large-scale digital transformations are not working. Depending on which sources one considers, between 50 and 90% of digital transformations fail to deliver the expected benefits. One of the key reasons why the introduction of new technology and systems at scale is not effective is that they simply reinforce existing transactional processes. As a result, they fail to transform the ways of working engrained in the company culture.

Small-scale digital transformations are a lot more successful in changing the processes as they focus on specific components of the value chain. By focusing on specific issues, they have more flexibility in choosing the technology that is good at addressing the specific problem at hand and investing into developing applications.

Typically, development of data-driven applications will go through three phases, starting with dashboards and interactive reports that are used to analyze trends and develop business strategies for improving the performance. The next step in the evolution is productivity tools that automate parts of the data analysis required to execute business strategies. Ultimately, these are then extended to digital products that automate the execution.

The investment area will largely depend on existing digital capabilities, the status of the company’s current investment cycle, and the key objectives for the procurement function.

However, looking at the challenges that procurement functions have successfully solved or are currently trying to solve, three promising areas are starting to emerge that also indicate how a more strategic procurement function is going to emerge as a result of digitalization.

EXHIBIT: Use cases for technological led changes to tactical operations and higher levels sourcing activities

1. AUTOMATION OF TACTICAL OPERATIONS AND CONTINUOUS DRIVE TOWARDS AUTOMATION OF TRANSACTIONAL PROCESSES	<ul style="list-style-type: none">• Automated demand forecasts based on predictive analysis rather than extrapolation• Automated ordering based on vendor lead times and item-level target inventory level• Automated item setup using vendor catalog feeds• Automation of customer ordering (e.g. "Subscribe and Save" and similar auto-ordering programs)
2. BETTER MANAGEMENT OF SUPPLY RISKS THROUGH DATA SCIENCE	<ul style="list-style-type: none">• Development of new spend analysis approaches to surface potential supplier risks• Use of blockchain technology to provide better traceability of buyer and seller identities, item verification, and transaction history• Use of machine learning approaches to reduce enterprise risk by assessing market conditions
3. DATA DRIVEN SOURCING APPROACH, PROVIDING MORE DETAILED CATEGORY RESEARCH, RFP CRITERIA, AND SUPPLIER SELECTION	<ul style="list-style-type: none">• Increasing number of automated tools and products capable of providing relevant category insights and demand drivers• Automation of market basket selection, RFP preparation, and supplier selection• AI-driven products such as cognitive procurement advisors (CPAs)- to expedite vendor identification, and the negotiation process

While new technology makes data science and the development of data-driven applications more accessible, their actual development remains the responsibility of organizations themselves.

While commercially-available applications provide a quick start, they rarely provide a competitive advantage and trigger innovation required to gain competitive advantage. So, it will be down to procurement teams themselves to take the initiative and guide the development of digital solutions.

But they will also need to overcome the challenges of digital transformation relating to technology selection, availability of talent, and new ways of working.

IMPROVING THE TECHNOLOGY BACKBONE USING SCALABLE CLOUD-BASED TECHNOLOGY

The basic advantage of such platforms is that they allow companies to maximize the potential of their existing data systems without replacing these systems. They work on the premise that data from native systems can be consolidated and integrated inside a data platform which then functions as an aggregator of data from multiple systems. As they do not replace existing systems, cloud platforms offer full flexibility around data handling and engineering, allowing data engineers to work with large volumes of complex data of varying quality and develop bespoke solutions for improving their availability and reliability.

They also allow for the exploration and development of data-driven applications on small, targeted business areas without disrupting day-to-day business activities. This possibility to innovate and develop new applications on targeted areas is a lower-risk and cheaper alternative, given minimal upfront investment. However, once applications have been developed on a specific platform, they are quickly scalable as they can easily be ported to a larger platform or opened up to new internal and external users. They can also potentially lead to new business models based on cross-company collaborations (for example, procurement alliances).

MAXIMIZE THE TALENT POOL BY USING OPEN-SOURCE TECHNOLOGY

Data engineering, data science, and developer expertise is in high demand, with technology companies, financial services, and consulting competing for the best talent.

To maximize the pool of talent, many companies chose to use open-source technology stacks, which ultimately results in a larger number of people that are proficient in using it. Many companies, as well as their technology providers, suffer from lack of experienced resources and high churn rates of staff. This can lead to severe disruptions of digitalization efforts when key members leave the team in the midst of a critical project. Resources can be shared between business functions to benefit from better use of data across the organization. However, procurement functions should start investing into their own, dedicated resources to help them translate business requirements into digital solutions.

BUILD A STRATEGIC ROLE THROUGH COLLABORATION

The collaboration possibilities on cloud-based platforms bring scale to the operations through the ability for people to work on the same data platform towards a shared goal. This is an opportunity for procurement to take on a more prominent role within an organization. This comes from sharing their objectives, data, technology, and processes with the entire organization, starting with their nearest neighbors, supply chain and logistics, manufacturing and sales to help build up first a cost-management culture and then a value and profitability mindset across the organization.

PROCUREMENT DIGITALIZATION IS LEADING TOWARDS CLOSER COLLABORATION WITH SUPPLIERS

With increasing pressure on results, procurement will need to develop new approaches for delivering value to their organizations.

Advances in digital technology continue to provide opportunities for developing new approaches, but it is down to procurement functions themselves to decide whether to continue investing into improving their technology backbone or increasing their investment into applications that help them develop their strategic capabilities.

With availability of scalable low-cost data platforms, the business case for investing into the development of proprietary, bespoke applications is very compelling, and even more so with the possibility to focus on specific problem areas with minimal disruption to the day-to-day activities.

By taking a bottom-up approach to digitalization, procurement functions are more likely to learn, adapt, and innovate with every step of digitalization and build the cultural prerequisites of change required to move away from tactical sourcing towards proactive category planning.

With greater availability of data, more powerful analysis algorithms are increasingly taking on the traditional obstacle to long-term category planning: market uncertainty. Through better use of data, procurement functions can build an independent understanding of drivers of change in both customer demand, as well as external market conditions, and use it to establish a better way for working with suppliers.

With the scalability of data platforms, procurement should look even further to build deeper relationships with their suppliers and start building data sharing economies and using data sharing as a foundation for strategic partnerships between buying alliances and networks of suppliers.

As part of such supplier alliances based on a common data platform, procurement can take a leading role as the owner of the data processed on their platform and also start setting up business models for monetizing the data through their proprietary productivity tools and applications.

THE WAY WE SEE IT

As a data-rich function, procurement should be a front-runner of digitalization. With the current maturity level of data technology, a number of promising application areas are starting to emerge that allow procurement to advance its strategic capabilities.

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ABOUT US

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These are the moments when everything is on the line – a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork-in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA – so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done, and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.

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