KPMG

Digitalization in procurement: Sustainable added value through digitalization

Whitepaper on the planning and implementation of digital transformation in procurement
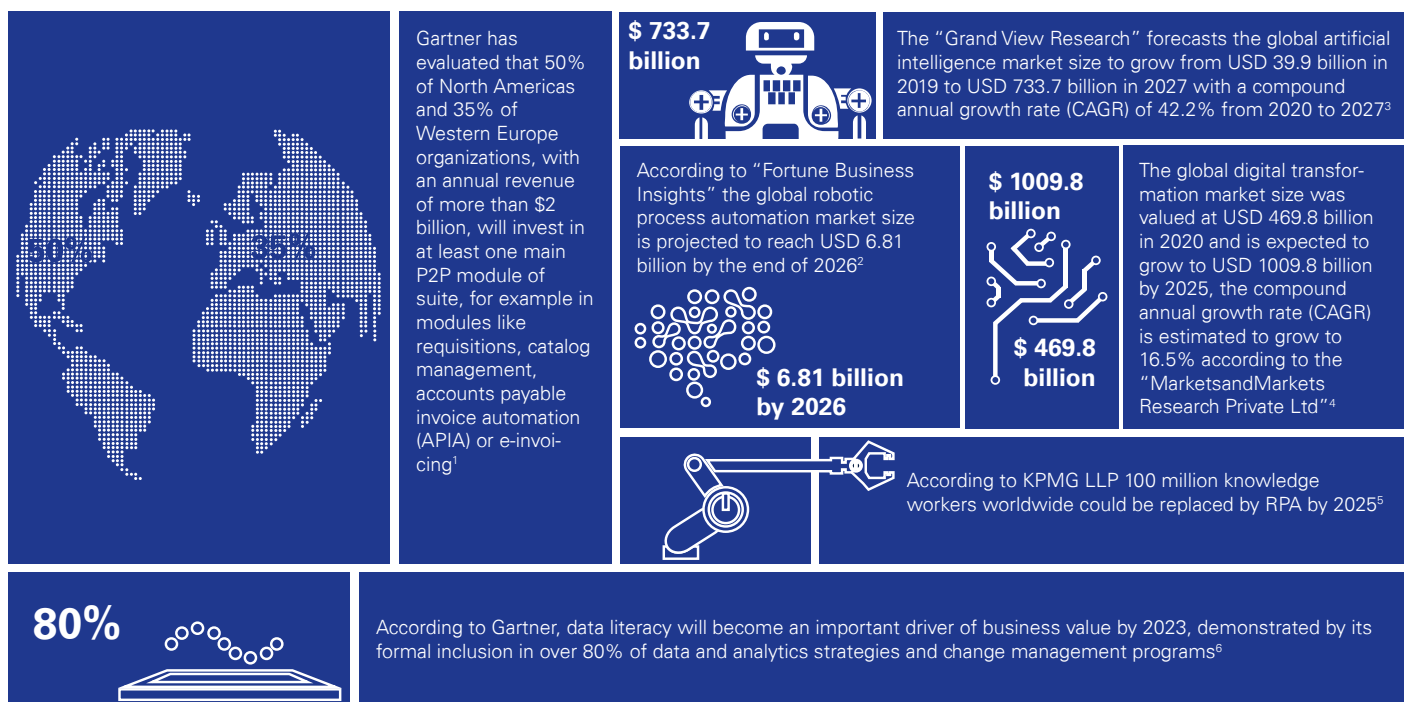
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Procurement in disruptive times

The latest digital technologies are changing our day-to-day lives at an unprecedented speed. We can talk and chat with family and friends all over the world for free, order a ride to our current location via an app, or track the real-time location of our delivery driver to make sure that the one-hour delivery window previously announced via push notification is met.

These examples demonstrate how digital technologies are putting established business models to the test and can even make them obsolete: fewer and fewer households own a landline, while telephone taxi companies and traditional post offices for collecting parcels are closing by the dozen.

The classic example of disruption is the success story of online marketplaces, which started out by making a thousand-year-old sales channel – the bookshop – obsolete in less than 20 years. Established companies should therefore be warned: If they want to survive the competition with innovative and agile start-ups, they must totally reinvent their business models and value chains. Disruptive technologies are revolutionizing all areas of specialism.

Just as the introduction of ERP systems in the 1980s and 1990s caused the silo way of thinking about corporate functions to give way to a more holistic supply chain management approach, all specialist functions today need to think about what digitalization means for them and how it can be used to increase value.

Figure 1: Excursus – Facts & figures on digitalization

Gartner has evaluated that 50% of North Americas and 35% of Western Europe organizations, with an annual revenue of more than $2 billion, will invest in at least one main P2P module of suite, for example in modules like requisitions, catalog management, accounts payable invoice automation (APIA) or e-invoicing[1]

$ 733.7 billion

The "Grand View Research" forecasts the global artificial intelligence market size to grow from USD 39.9 billion in 2019 to USD 733.7 billion in 2027 with a compound annual growth rate (CAGR) of 42.2% from 2020 to 2027[3]

According to "Fortune Business Insights" the global robotic process automation market size is projected to reach USD 6.81 billion by the end of 2026[2]

$ 6.81 billion by 2026

$ 1009.8 billion

$ 469.8 billion

The global digital transformation market size was valued at USD 469.8 billion in 2020 and is expected to grow to USD 1009.8 billion by 2025, the compound annual growth rate (CAGR) is estimated to grow to 16.5% according to the "MarketsandMarkets Research Private Ltd"[4]

According to KPMG LLP 100 million knowledge workers worldwide could be replaced by RPA by 2025[5]

80%

According to Gartner, data literacy will become an important driver of business value by 2023, demonstrated by its formal inclusion in over 80% of data and analytics strategies and change management programs[6]

Source: KPMG in Germany, 2020

1 https://intra.aspac.kpmg.com/sites/CN/Advisory/AlliancePartnership/Alliance%20Partner%20Portfolio/Coupa/Coupa%20Gartner%20Magic%20Quadrant%20for%20P2P%20Suites%20 2016%20-%20FINAL.pdf

2 https://www.globenewswire.com/news-release/2020/05/29/2040784/0/en/Robotic-Process-Automation-RPA-Market-to-Reach-6-81-Billion-by-2026-Increasing-Investment-in-Cloud-Integra tion-Will-Bode-Well-for-Market-Growth-says-Fortune-Business-Insights.html

3 https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-ai-market#:~:text=The%20global%20artificial%20intelligence%20market%20size%20was%20estima ted%20at%20USD,USD%2062.3%20billion%20in%202020.&text=The%20global%20artificial%20intelligence%20market%20is%20expected%20to%20grow%20at,USD%2073 3.6%20billion%20by%202027.

4 https://www.marketsandmarkets.com/Market-Reports/digital-transformation-market-43010479.html

5 https://assets.kpmg/content/dam/kpmg/pdf/2016/04/employees-an-endangered-species.pdf

6 https://www.gartner.com/en/conferences/na/data-analytics-us/featured-topics/digital-transformation

Of corporate functions, procurement is uniquely positioned to be significantly affected by digitalization and profit from it. As an area with many internal and external stakeholders and interfaces, procurement already has a unique volume and variety of data that can be processed using advanced analytics, artificial intelligence and bots to make strategic management decisions. In this respect, procurement is in pole position to form new value creation ecosystems by systematically and efficiently linking innovations on the supplier market with current customer needs. For example, higher demand in one region for a new type of product can be identified early using demand sensing and prescriptive analytics to anticipate rising demand in neighboring markets and to increase order volumes immediately. On the other hand, new technologies could make procurement as we know it obsolete. If artificial intelligence and bots could automatically bundle, tender, negotiate and process purchase requisitions across departments, the centralized procurement function would lose its reason for existing. How can procurement then use digitalization to pursue corporate strategy as effectively as possible and at the same time strengthen its own position?
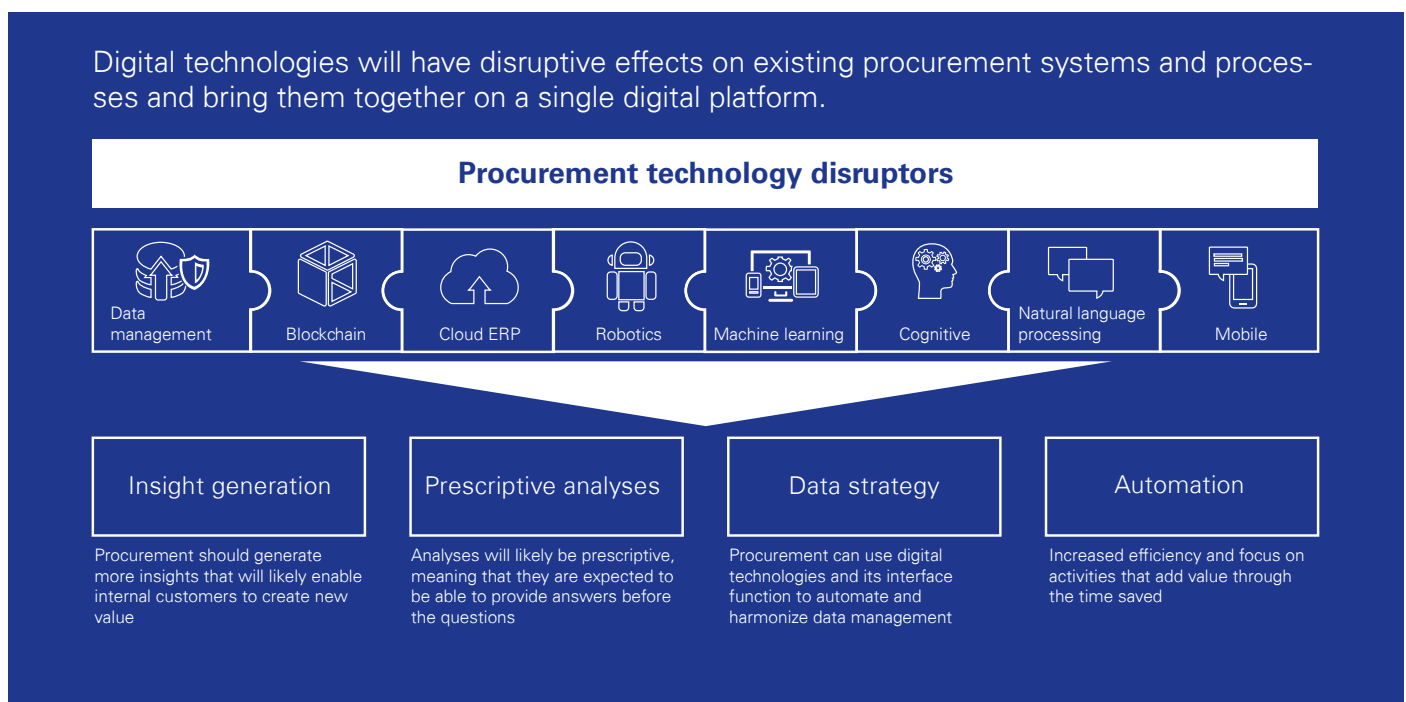
What will likely be most important in the future of procurement is creating transparency over a complex market in a short period of time through streamlined, (partially) automated procurement processes and higher data quality. Interlinking across national and functional borders is becoming increasingly significant. This means optimizing interfaces within companies and with suppliers and using the exchange of data and available resources efficiently. Another key aspect is compliance and the associated adherence to legal regulations and guidelines.

To introduce digital transformation to their own procurement departments, companies should ask themselves three fundamental questions:

– What role will procurement play in our operating business model in five years?
– What qualifications do my employees need to fully exploit the potential of digitalization in procurement?
– What are the digital building blocks of procurement that can already help the company now to establish a sustainable competitive edge?

Figure 2: Technological procurement disruptors and their value contributions

Digital technologies will have disruptive effects on existing procurement systems and processes and bring them together on a single digital platform.

Procurement technology disruptors

Data management · Blockchain · Cloud ERP · Robotics · Machine learning · Cognitive · Natural language processing · Mobile

Insight generation
Procurement should generate more insights that will likely enable internal customers to create new value

Prescriptive analyses
Analyses will likely be prescriptive, meaning that they are expected to be able to provide answers before the questions

Data strategy
Procurement can use digital technologies and its interface function to automate and harmonize data management

Automation
Increased efficiency and focus on activities that add value through the time saved

Source: KPMG in Germany, 2020

In order to independently shape its position as a key function in any company, procurement not only needs to scrutinize its own strategy, but also play a proactive role in shaping the company's digital strategy. Companies that opt for digitized procurement can gain a competitive edge through a stronger customer focus and the necessary agility to satisfy ever more rapidly changing customer requirements. Outdated procurement organizations, meanwhile, can find it difficult to identify innovative suppliers early on and integrate them into their value chain in order to establish transparent and efficient end-to-end supply chain management. The gap between the company and its competitors will likely increase as it is forced to cling to veteran suppliers that have also missed the boat to innovate. The market is expected thus split into innovative and outdated supply chains.

Companies wanting to be among the group of innovators need to set out on the digital transformation journey sooner rather than later.

Embarking on the digital transformation journey

Without any relevant prior experience, the path to digital transformation can resemble a leap into the unknown. This requires well thought-out, structured and forward-looking action under the assumption that vision, leadership and collaboration are the key success factors for digital transformation.

A leading purchasing company serves as an example of how procurement can encourage this kind of forward-looking vision. This company has successfully tested a talking robot as the first point of contact on its switchboard. The actual goal of this pilot project was to test the suitability and limits of its use as a sales assistant in physical shops. Thanks to this initiative, the purchasing company was able to position itself as an innovative sales partner and strengthen internal value creation in the company.

A well-tested five-step process, presented in detail below, can help companies to define a customized digital transformation journey for procurement.

1. Ideation and design thinking challenge

Digitalization combined with a new understanding of roles requires far-reaching transformation of procurement. All foreseeable aspects and consequences of the upcoming change should be determined and discussed in an initial ideation workshop for a planning horizon of around five years. The aim is to discuss and define the future value contribution and role of procurement in the value chain. External expertise helps to cover all of the anticipated, far-reaching effects. The panel should therefore not just include key representatives from procurement, corporate management and the IT department. External digitalization specialists, experts in new work culture and futurologists can provide further valuable insight. In one KPMG Ideation Challenge, for example, engineers and data scientists from motorsport industry demonstrated how they are already using internet-of-things sensor technology and automated analytics to adjust the setup of cars to external conditions in real time during the race. Such real-time analytics could be of great use to procurement in the future, for example allowing departments to immediately respond to supply chain disruptions by contacting alternative suppliers.

2. Developing a vision

The goal of the KPMG Ideation Challenge is to develop a digital vision to work towards through numerous projects and initiatives in the coming years. Insights from the ideation workshop should be linked to a supply chain management vision (operating model). Depending on the action required and the individual technological level of the company, this generally results in either a strategic or an operating approach. Where can a distinct, positive influence on desired performance quickly be identified? Based on this key question, a list of priorities can be derived. One way of determining the order of initiatives and projects is by using an effect/complexity diagram. Factors to consider include the number of systems, interfaces and new staff required for the project. A first initiative should have comparatively low complexity and a signifi-

Figure 3: Approach for the start of the digital transformation

1. Developing ideas in consultation with KPMG professionals

2. Development of a digital supply chain management vision (operating model) including value drivers, processes and skills

3. Assessment of current IT solutions and determination of the impact on the operating model
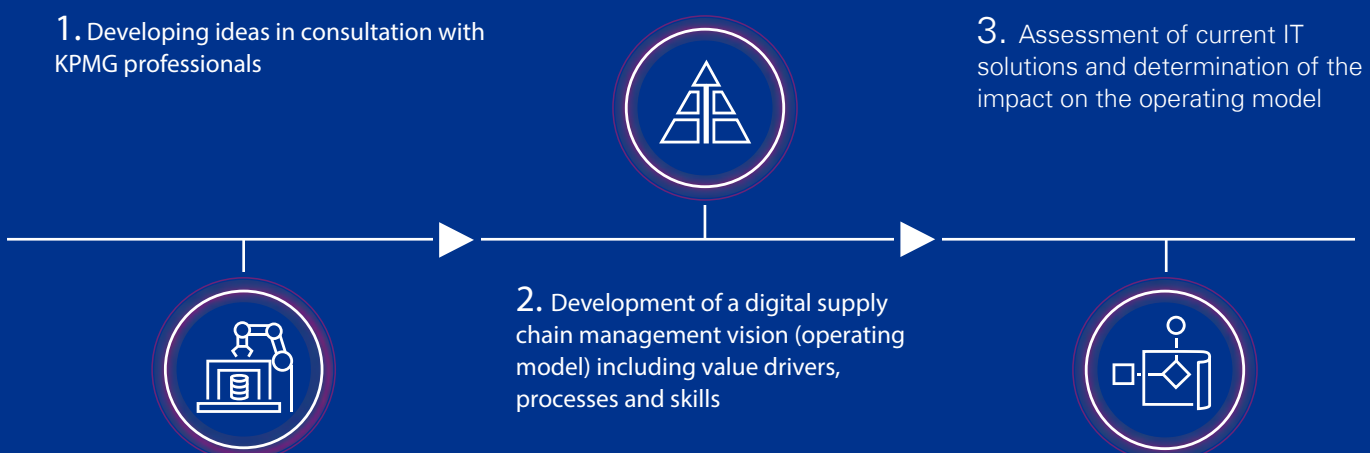
cant impact. This creates a quick-win situation and generates momentum for the next steps. The objective should be to not only digitalize processes in their current form, but also to use new technologies to replace old structures and introduce innovative processes with greater efficacy and efficiency. As part of a client project, KPMG in Germany used just such an ideation approach to design a digital solution for strategic procurement, KPMG Collaborative Category Management, to foster virtual collaboration between global teams and introduce an established category strategy approach at the same time.

3. IT solution scouting

In the third step, the IT solution market is evaluated to identify all potential solutions that could support the formulated vision. Above all, technology experts and consultants can provide support with their in-depth sector and technology expertise. The solutions are assessed according to specifications and advantages and disadvantages, and best practice implementation and uses cases are sought. When scouting IT solutions, a distinction is made between „suite" and „best-of-breed" solutions. Suite solutions are primarily aimed at covering as many purchase process steps as possible in the source-to-contract and purchase-to-pay process in one integrated solution. Under a best-of-breed approach, however, a specially customized solution is sought for each process step. Therefore, whether to opt for suite or best-of-breed is a decision that should ideally be made when

preparing the digital vision, and the choice should take into account the company's procurement and IT strategy.
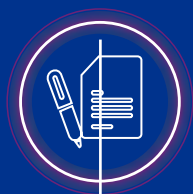
4. Validation workshop

The validation workshop brings together all of the stakeholders in the project to evaluate and validate the preferred IT solutions. These naturally need to be suited to the operating model developed in the ideation workshop. The goal of the validation workshop should be to make decisions so that the core team can launch from the planning to the execution phase. For example, in the case of KPMG Collaborative Category Management, the industrial company concerned and KPMG in Germany decided during the workshop to develop their own solution, which set the general course for the entire digital transformation for years to come.

5. Failing forward approach & lean development

Digitalization is a disruptive technology and thus forces decision-makers to sometimes take incalculable risks. This involves a high risk of failure, as the latest operating models and technologies must be implemented in a dynamic environment. In a process of fundamental adjustment, however, accepting risks is essential in order to take new paths. Isolated deficiencies and failed measures can also be expected. Senior management needs to view the (r)evolution of trusted business models as a learning process and consistently communicate and exem-

plify tolerance of setbacks in a top-down approach, doing so at a point in time when visible pain points for process changes are still very minor.

The buzzword here is the "failing forward" approach, according to which every setback is reflected on positively to learn lessons for the next attempt. Without open acceptance of failures, it can be very difficult to win over employees in the digital transformation journey. Due to a lack of experience and best-practice examples of digitalization, solutions and concepts have to be developed in a lean manner and tested and implemented as quickly as possible. An agile project management method (e.g. scrum) can help with this by testing solutions in the real world as soon as possible and gradually improving them. Such feedback loops driven by short development and optimization cycles help to implement transformation efficiently. In addition, rapid implementation and involvement of the specialist departments can have a motivating effect on the employees involved and increase acceptance of the initiative.

5. Development, testing and introduction of digital business model concepts (via failing forward approach)

4. Execution of a workshop to assess and select digital solutions based on the business requirements

Source: KPMG in Germany, 2020

Case study:
The digital platform for strategic procurement

Connecting business partners, suppliers and experts across business units and national borders – this is the main task of a modern centralized procurement function. The KPMG Collaborative Category Management procurement platform, digitally maps the end-to-end category management process. The focus is specifically on the collective development of category strategies, which has until now been a blind spot in the IT landscape. The solution emerged from a development process in a co-innovation project with a leading industrial company on the Collaborative Category Management procurement platform. From the initial ideas to development, the project followed the approach described above, with the only difference being that no suitable IT solution was found on the market and a solution therefore had to be developed internally.

The collaborative partners saw digitalization as an opportunity to take procurement to the next level of maturity. Three key challenges in particular emerged from the joint project, and they should be addressed using digital technologies.

1) Driven by staff turnover in category management and the resulting loss of prior expertise as well as varying levels of maturity among the local procurement departments, one key challenge was the heterogeneous maturity level of various category strategies. Innovative technologies should therefore ensure consistent category strategies at the highest level by institutionalizing knowledge and standardizing the category strategy process.

2) The increased dynamics of the various markets led to rapid changes in demand, which requires continuous and structured communication between central category management and internal users scattered across the globe. Previously, system-based support for surveying demand in structured manner was difficult or impossible to find.

3) Category managers have often seen good initiatives fail at the implementation stage, with the associated value contribution never materializing. A transparent interface was lacking between the strategy and tactical implementation. Internal users were involved too late in the process, which resulted in a lack of support when it came to implementation.

The digital vision and the IT solution had to address the challenges described above – this led to the definition and development of KPMG's Collaborative Category Management. The vision is presented in figure 4.

Figure 4: Digital target frame

Development process of the Collaborative Category Management procurement platform
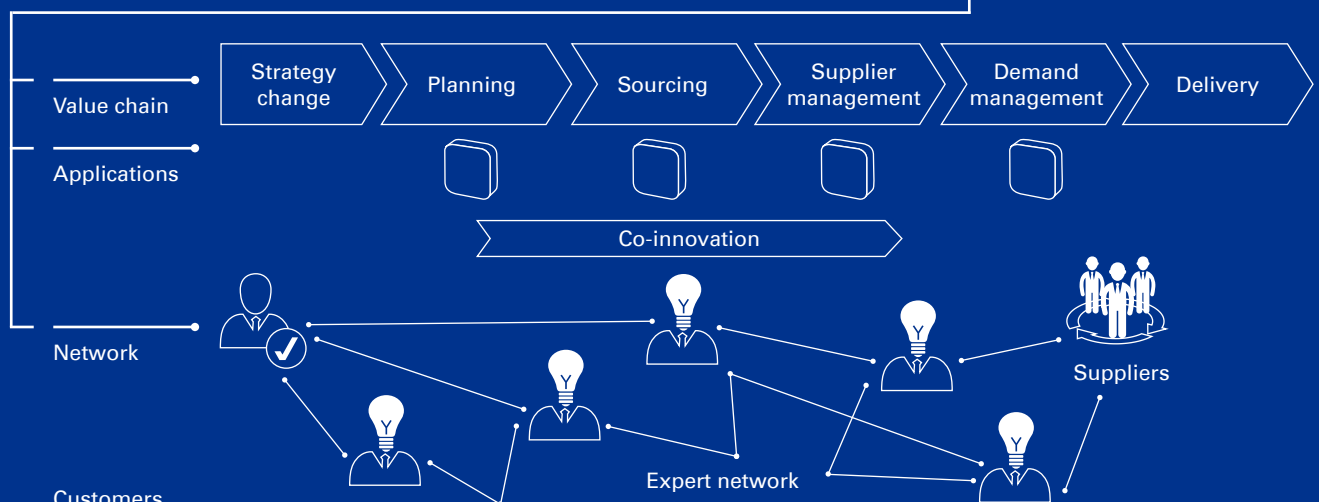
1. Vision development

2. Workshop results

3. Digital platform – development, testing and introduction

- Future vision SCM 5.0
- State of ideation workshop

- Connectivity and transparency
- Customer centricity
- Collaborative workflow
- Skills to system

Value chain: Strategy change → Planning → Sourcing → Supplier management → Demand management → Delivery

Applications

Co-innovation

Network

Customers

Expert network

Suppliers

Source: KPMG in Germany, 2020

KPMG Collaborative Category Management is a browser-based platform for developing category strategies with the involvement of all stakeholders. As a digital platform, Collaborative Category Management organizes strategic category management and creates new value for the entire organization with the help of a tried-and-tested, system-based and structured strategy development process.

As a result, Collaborative Category Management creates added value in three key areas:

Efficacy: The platform concept fosters closer and sustainable coordination between category management and internal users. The fragmented processes of geographically separated teams are merged through collaboration on a virtual platform. For example, this involves the use of an integrated online survey tool.

Efficiency: Various communication channels such as a task manager, chat functionality and integrated approval processes encourage and can make it easier for all stakeholders to work together across all categories. Thanks to standardized templates, structured questionnaires and automated presentation of results, precious time is saved for the category managers' more value-adding activities.

Strategy: Introducing Collaborative Category Management helps procurement to be seen as a digital pioneer within the organization. The interfaces and immense, converging data volumes are designed to be as effective as possible to position procurement as a sustainable driver of value.

Conclusion

In order to drive the rest of the company forward as a pioneer of digitalization, procurement first needs to see digitalization as an opportunity rather than a threat. In addition, all stakeholders need to be aware that even if a company-specific digital vision has carefully been drawn up according to the approach described above, there will still be a residual level of uncertainty regarding the implementation of the digital procurement strategy. Taking a cue from the best practices of leading companies and initiatives can help to minimize uncertainty. Nevertheless, setbacks should always be expected and handled with a positive „failing forward" attitude. To successfully live out this way

of working in practice and foster the full engagement of staff, corporate management needs to lead by example and consistently communicate the acceptance of failures. This can help ensure that employees display the necessary risk tolerance for the planned revolution of the business model and procurement. This approach can help companies to reach the ultimate goal: to achieve sustainable value creation through more closely linking end customer and supplier markets via procurement.

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