



REVOLUTIONIZING PROCUREMENT WITH ARTIFICIAL INTELLIGENCE

Identifying and realizing the real value



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INTRODUCTION

Artificial Intelligence is an eco-system of interrelated technologies such as machine learning, deep learning, and neural networks with the potential to imitate human decision making. Artificial Intelligence is a term which pertains to art for data scientists and computer science engineers to study how machines use complex data and self-learning techniques to understand and mimic human cognitive ability and task execution.

Artificial Intelligence (AI) is getting a lot of attention and interest in the last few years as a number of new AI-powered commercial applications have hit the market. For as far as AI is concerned, on the question of where do we stand at as of this point, it is now entering our daily lives with applications such as Apple's Siri, Amazon Echo or Google Home in the form of digital personal assistants.

AI technology is already making waves in Source-to-Pay. Over recent years, the procurement function and the organizations as a whole have embraced the idea of "Artificial Intelligence" (AI). As organizations are getting serious about leveraging the technology, an attempt is being made to understand its application and where the real value lies.

Artificial Intelligence in Procurement; What, Why and How?

WHAT?

AI in a nut-shell is a combination of technologies which encompass machine learning to natural language processing, and it allows machines to learn, comprehend, and act.

WHY?

Artificial Intelligence has the capability to augment human processes and technology, increasing business capabilities.

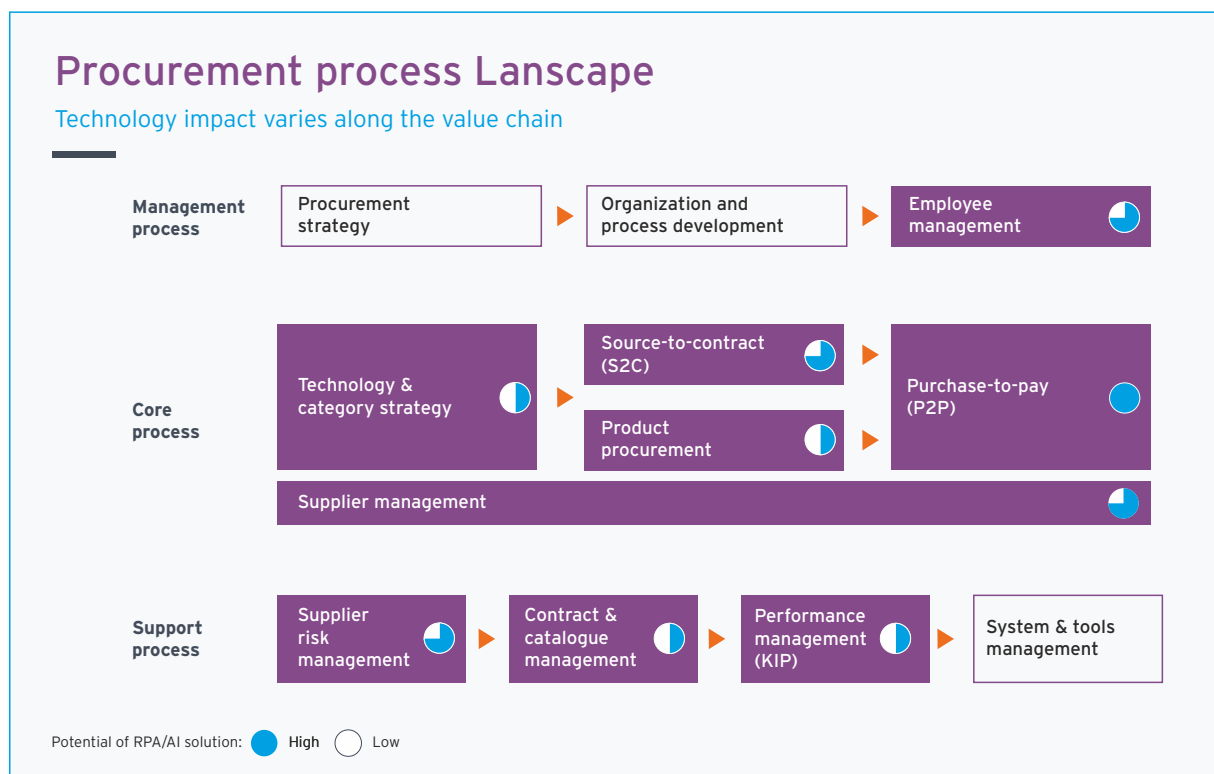
HOW?

AI, at its core, is automation and augmentation: it will improve many of the core business processes. AI will help reduce costs and streamline processes.

Application of Artificial Intelligence across Procurement Value Chain

Today procurement function has become extremely complicated as a result; it has become very strategic in nature. There is a need to deliver better results in terms of saving, efficient processes, better compliance, and risk management. As the purview of procurement grows to a provider of strategic insight and foresight, the procurement organization must adapt its existing practices and strive to leverage new tools. This presents procurement a great chance to leap into a more strategic role.

A clear roadmap of how to move and exploit the AI opportunity needs to be laid out by organizations, and early movers have already started to identify the key areas with the most potential for AI in procurement. This exercise is critical to gain a competitive edge and will help get a clear view of how the future looks like.



Source: rolandbergers

By 2022, 50% of all legacy spend analysis software will be retired; replaced by Artificial Intelligence (AI)-powered, cloud-based solutions.

-Gartner

Impact of Artificial Intelligence in Procurement



Efficiency and Streamlining process

With the new capabilities that AI can offer, companies can leverage the technology to open up new horizons that can boost efficiency and performance in procurement.

AI, with its inherent capabilities, can help reduce time-consuming and relative tasks to free up valuable time of the function. Administrative burden is created on account of huge volumes of unstructured data to be dealt with by procurement teams. AI can be used to delegate day-to-day tasks such as checking invoices against contracts, recordkeeping, and transcription to a digital assistant.

The possibilities are unlimited;

A few use cases

- AI can help bring all purchases under direct control by facilitating the creation of requisitions from free-form data like that contained in an email and not just data entered into a requisition entry screen.
- AI could also be trusted to review and even generate and monitor supplier contracts, automating a labor-intensive set of tasks.
- We already feel comfortable asking digital assistants for help (Think- Siri, Alexa), virtual personal assistants (VPA) by leveraging AI could interact and give suggestions to user's basis real-time transaction data.

Virtual assistants will become a standard feature in P2P software's going forward.

-Gartner



Risk reduction

A risk can be defined as an uncertain outcome which may affect the course of a procurement exercise at a future date. All procurement activities will contain risks that can impact the function; therefore, much time is spent to identify and assess risks in the present. Artificial Intelligence can help through its inherent capabilities to manage procurement risks better.

Many organizations, particularly with large global supply chains, are looking into the possibility to investigate pertinent procurement risk with AI-powered solutions to ensure better risk monitoring. AI can play a massive role at each step of risk management; **Identification, Assessment, Monitoring, and Control.**



Identification

What are the possible risks?



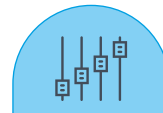
Assessment

What are the chances of the risk actually materializing?



Monitoring

Keeping a close eye on the existing and emerging risks



Control

What can be done to avoid and reduce the effect of the risk

A few use cases

- AI can monitor millions of sources for new and emerging risks. Humans can't keep track of all suppliers risk factors in real-time, but AI can.
- AI-based analytics will be capable of monitoring real-time supplier data to enable early detection of Suspicious Spending, Pricing Irregularities, [Potential frauds](#), Usage Anomalies, and Contract Variances.
- AI technologies can simplify the time consuming and error-prone approach of generating reports about business risks (often referring to data weeks or months old) by automatically generating reports in real-time.
- Analysis that is AI-enabled can run without a break; it will send alerts out proactively when opportunities to reduce risk factors are available.



Better Compliance/ Reporting

It's accepted by many in the industry that one key area of technology that has the ability to make a huge impact on compliance, it's Artificial Intelligence.

Procurement departments suffer from massive data loads and exhausting regulatory requirements when it comes to reporting and compliance. The sheer amount of documents and repetitive processes soaks up the time of many procurement professionals. **How is AI suitable for this particular task?** AI as a technology is iterative and self-learning, which will allow solutions to adapt to inputs and perform compliance and reporting tasks more efficiently and automatically.

A few use cases

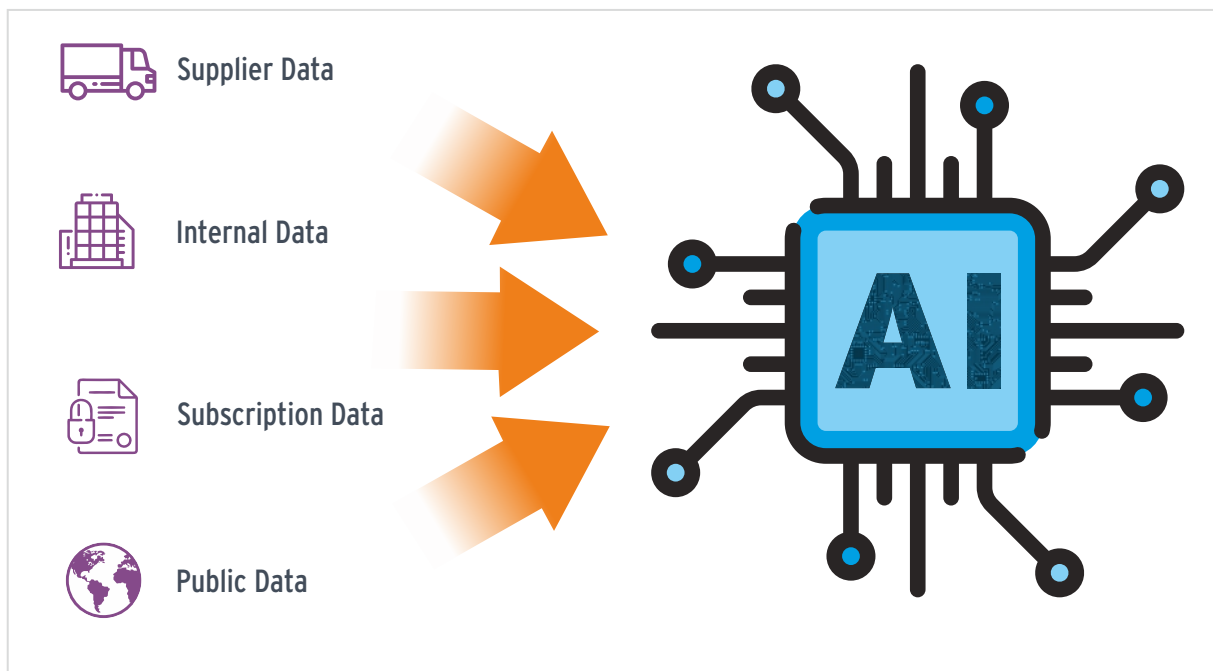
- Dynamic information repository in the form of dashboards can be generated automatically to help get granular visibility and real-time insights.
- Better contract compliance with increased visibility into terms and conditions.
- AI and data analytics can be linked to contracts and rate cards with transactional data that can alert any incidence of non-compliance in real-time.
- AI can help gain granular visibility into every compliance and reporting aspect from overcharging by the suppliers to nonconformity with respect to SLAs.



Advanced Data Driven Decision Making

“Data-driven procurement” is a term used to describe a procurement strategy that utilizes data analytics to processes, and then use insights derived from data to devise strategies and decision making. Procurement professionals are yet to realize the full potential of such a strategy.

The Procurement function has access to thousands of data points from within and outside the organization. These may include transaction details, inventory records, consumption and usage, contract terms and rate, market information, and historical pricing.



Artificial Intelligence and machine learning (ML), are capable of transforming the existing procurement solutions through predictive analytics. The solutions, when coupled with these technologies, can collect, and connect data to identify patterns, variations, and bottlenecks.

A few use cases

- Data powered procurement process teams can get real-time reports on supplier performance, costs, quality, and other gaps in business process, and take better decisions.
- Price comparisons can be made through benchmarking, basis analysis of cost, and price. Advanced methods can be used effectively.
- Spend volume can be forecasted with AI to identify the effects of fluctuation in material pricing and exchange rates.
- Procurement solutions powered with AI will be capable of looking for abnormalities in order quantity and cost discrepancies by comparing the contract data to invoices and orders.

Role of Artificial Intelligence in Source-to-Pay



Spend Classification and Analysis

Artificial Intelligence powered Spend solutions pack the capabilities to classify and analyze millions of transactions in a few minutes. AI/ML algorithms can help users gain insights to solve pressing problems and along with it, get suggestive actions. AI in a self-learning environment is capable of understanding complex cause-effect relationships and perform what-if analysis at just the click of a button.



Sourcing

Sourcing can be a complicated and time-consuming task, especially when the sourcing project is of high value. Using Artificial Intelligence technology, advanced analytics can be leveraged by organizations to map patterns and trends to identify the best vendors for the project. AI can reduce the risk associated with sourcing to a great extent and at the same time, aid decision making.



Contract Management

Contract management can reap the most benefit with application of Artificial Intelligence in the Source-to-Pay process. AI can reduce financial risks and predict cycle time for contracts of similar nature. Automatic recommendations and pop ups, if any clause is missing or in case of repetition will reduce substantial legal risk as well as save much valuable time.

“ Making sense of data and providing advanced intelligent support requires the right technology - especially AI, natural language processing, analytics, and bots. ”

-Accenture
(NEXTGENERATION DIGITAL PROCUREMENT)



Supplier Management

Supplier information management and supplier lifecycle management can be streamlined with introduction of Artificial Intelligence and machine learning. Onboarding to contracting, all stages can be simplified for all the parties involved. The technology can help organizations get real time performance updates, enabling better decision making which is directly reflected in the bottom line saving.



Financial and Saving Management

The intrinsic benefits of the underlying AI/ML technologies help map key trends and gain strategic foresight. Financial management and savings can be achieved by utilizing discounting opportunities and negotiated payments, thereby optimizing working capital. The self-learning system can monitor and take reactive actions in line with the pre-set saving targets.

Conclusion

The AI landscape is becoming clearer with AI already enjoying acceptance in Source-to-Pay. Forrester called the adoption of AI in procurement as “more evolutionary than revolutionary”. Procurement leaders are starting to put strategy ahead of operations to move towards digitization and automation aiming to solve the most pressing procurement issues. AI, coupled with a lot of different tools, can touch all aspects of the procurement process and the benefits go far beyond just achieving savings.



About us

Zycus is a leading global provider of complete Source-to-Pay suite of procurement performance solutions. Our comprehensive product portfolio includes applications for both the strategic and the operational aspects of procurement - eProcurement, eInvoicing, Spend Analysis, eSourcing, Contract Management, Supplier Management, Financial Savings Management, Project Management and Request Management. Our spirit of innovation and our passion to help procurement create greater business impact are reflected among the hundreds of procurement solution deployments that we have undertaken over the years. We are proud to have as our clients, some of the best-of-breed companies across verticals like Manufacturing, Automotives, Banking and Finance, Oil and Gas, Food Processing, Electronics, Telecommunications, Chemicals, Health and Pharma, Education and more.



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