

HARNESSING AI IN PROCUREMENT: A STRATEGIC APPLICATION OF TECHNOLOGY FOR ENHANCED EFFICIENCY

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Institutional procurement covers the purchase of goods, services or works by organisations. As per the World Bank estimates, procurement by the public sector covers up to 20% of global GDP. Procurement by the private sector is on top of this. According to the International Monetary Fund's (IMF) estimates, 10-20% losses in public procurement are linked to inefficiencies and corruption. Additionally, as per another IMF report, delayed payments in procurement processes not only can reduce the profit growth of vendors by up to 3.4 percentage points but also increase the probability of default among private entities.

Across the globe, digital transformations and policy reforms are two pillars through which organisations are weeding out business process inefficiencies – procurement being one of those. Artificial Intelligence (AI) is one of the key technologies driving digital transformations across industry domains. Global spend on AI-related systems across the industry segments was estimated to be USD 154 billion in 2023 only. Such a kind of investment coupled with refined large language models (LLMs) have made AI use cases pervasive across business domains - the procurement domain cannot be an exception.

In general, institutional procurement can be segmented into specification-driven procurement and catalog-driven procurement with the previous taking the lion's share. In specification-driven procurement, buyers list down specifications of what they need and sellers respond back with products that they can offer for given specifications. On the other hand, in the case of catalog-driven specifications, sellers list down what they can offer and buyers purchase items from that list. In either case, there are multiple possible mechanisms for price discovery e.g. request for quotations, tendering etc. Further in the process, as orders are placed and fulfilled, quality check steps need to be done before invoicing is done. Post invoice verification against the original order, quality check and taxation,

payments and settlements happen. There are additional supporting processes such as vendor onboarding, grievance handling, data sanity management etc.

Cost overruns, inefficiencies and non-compliance in procurement are mainly due to three reasons, a) the need for cognitive decision-making. b) manual content generation requirements. c) unavailability of insights at the right time for proactive process intervention. Examples of cognitive decision-making are checking if product descriptions by the seller are in line with product images, closure of grievances based on facts provided and available in the system, automation in invoice verification and settlement, conversational and purposeful discovery of products required to be procured etc. Examples of manual content generation are drafting procurement requests like tender documents, procurement terms, pre-populating offerings etc. Examples of this are price trends for items, demand projection, anomaly detection to identify collusion between buyers and sellers etc. In each of these cases, AI driven expert agents assist personnel participating in procurement processes at key stages of the process.

Procurement is not only about cost savings and time optimisation though. While compliance used to focus on these two factors traditionally, sustainable and ethical procurement has also become one of the key drivers in the industry. As a counter balancing act on globalisation, governments, regulators and some corporates are also explicit about localised procurement or circular economy. These activities in turn support the global commitments of countries towards sustainable development goals (SDG). In this space also, AI expert agents can provide timely process interventions to promote compliance. e.g. during the vendor onboarding process, organisations carry out environmental and social governance (ESG) checks using AI expert agents.

Having said this, the journey of AI adoption in the procurement space is not without its challenges, mainly because organisations have seen this space as a cost center rather than a strategic investment. With diverse needs of organisations, skills sets available in procurement departments are typically process and compliance oriented rather than result and technology oriented. Considering this, organisations need to invest in choosing the right set of technology partners, have the will to transform this space and also educate procurement staff of benefits of AI adaption.

As organisations strive to stay competitive and resilient in a rapidly evolving business landscape, procurement transformation powered by AI presents an opportunity to drive efficiency, reduce cost, strategise decision-making, minimise risks and create value. However, successful procurement transformation with AI requires a strategic approach, investment in talent development, and a focus on ethical practices and compliance. By embracing AI technologies and adopting best practices, organisations can position their procurement function to thrive in the age of AI, driving sustainable value and competitive advantage.

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