

AI DRIVEN VENDOR SELECTION

Tech Mahindra's contextual knowledge discovery system is implemented using artificial intelligence (AI) and extracts targeted knowledge from supplier assessment documents and leverages the data to identify whom to contract out future assignments. The system has multiple capabilities built-in, including search engine, vendor comparison, and vendor ranking, which helps in a faster and intelligent assessment process.

Companies' engineering supplier capabilities are stored in folders on a shared server which is difficult to query the context manually. Documents contain data stored in different formats like Word, Excel, PDF, and PowerPoint. Manual processing of documents for decision-making is time-consuming and expensive. IT leaders need an intelligent application that can consolidate the information from the supplier capability and assessment documents. The output of this system would allow the comparison of suppliers' capabilities and distinctive skills.

OUR SOLUTION

Tech Mahindra's intelligent vendor selection system is implemented using data analytics and AI. The application consists of search, filter, compare, and best match (recommendation) functionalities.

Features of the Solution

- Cognitive extraction of vendor knowledge from the document corpus
- Capability to process high volume and variety of document corpus
- Cognitive search, compare, and recommendations capabilities
- Ability to learn from historical responses and records
- Compare multiple vendors parallelly in a single view

Solution Technology

- Deep knowledge discovery and text engineering techniques to extract targeted/identified contextual entities
- Domain-specific custom entity models built using open-source tools/frameworks including Tensor flow, Keras, and LSTM. The prediction models are developed using CNN
- Advanced cognitive search engine developed along with other data exploration techniques to explore supplier assessments

KEY CHALLENGES

The customer works with multiple suppliers as part of their engagement for certain aircraft programs. They perform a capability and capacity assessment on every supplier and generate a supplier assessment report (SAR). Considering the vast number of suppliers for various programs, the number of reports is over 1000s. For outsourcing future assignments, the supplier managers and business analysts repetitively evaluate the vast number of reports manually to identify the correct assignee for the future contract.

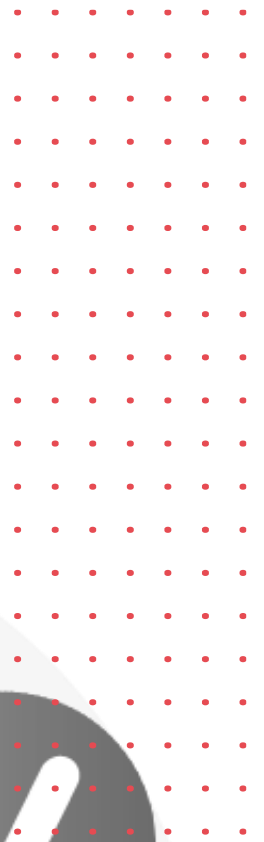
- High turnaround time involved in the decision-making process
- Manual process of assessment is prone to human error
- Processing unstructured assessment data stored in various formats in the repository
- Deriving a standard text engineering pattern from a huge variety of data
- Need to build system on-premise to owing to data security

BENEFITS

- Reduction of vendor selection time from 3 days to few seconds per cycle
- Reduction in human effort by 60%
- Identification of tender-worth list improved by 80%
- Reduction in turnaround time by 60%
- Robust and re-usable AI application

TECHM NXT.NOW ADVANTAGE

- Diversified global player with 20+ years of data, analytics, and AI practice
- 11,000+ data, analytics, and AI associates with domain led consulting focus
- Global footprints across 55+ countries
- Partner-enabled ecosystem with COEs across all these technologies
- Comprehensive frameworks, processes and tools to move PoCs to production



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