happiest minds
AI FIRST. AGILE ALWAYS.

CASE STUDY

UNIFIED GENAI CHATBOT FOR PARCEL ANALYTICS AND SALES & OPERATIONS PLANNING

About the Client

The client is a technology-driven supply chain organization focused on optimizing parcel spend and improving planning efficiency. By having pioneered the sector with their Parcel Contract Negotiation Services and analytics, they enable companies to be more profitable, proactive, and informed in their decision-making process regarding the future of their business.

Client Requirements

For the client, having accurate and intuitive access to customer data is essential in helping users understand their business and make better-informed decisions. The client required an integrated solution that would make **data-driven analytics** and **organizational knowledge access** easier using a single conversational interface.

Key requirements included:

Smart data access, which allowed users to ask Power BI questions using natural language and receive automatic generation of correct DAX and real-time results

Knowledge retrieval, which provided answers to questions based on Confluence documentation, policies, and business knowledge through an AI-powered chatbot

Improved decision support, which enabled business users to receive immediate, data-driven answers without having to refer to complex Power BI reports or documentation

Contextual conversations, which allowed the chatbot to identify whether the conversation is related to analytical questions (Power BI) or qualitative knowledge queries (Confluence), to provide complete business-ready answers

Happiest Minds Solution

Happiest Minds has designed and delivered a Generative AI-powered conversational assistant to simplify complex parcel spend and supply chain analysis. The solution enables users to interact with data and documents in a single interface using natural language processing, GPT intelligence, Power BI integration, and Azure AI Search, providing distinct and action-oriented insights.

Quantitative Question Responses
Power BI Analytics

Conversation-Based Power BI Data Access
Users can pose natural language queries about parcel spend, parcel margin analysis, and supply chain analysis without having to manually code DAX or explore Power BI dashboards.

Schema-Based Data Interpretation
The AI assistant leverages Power BI schemas, such as tables, columns, and measures, to interpret the data model and respond to user queries with accurate analytical logic.

Contextual Example Fetching for DAX Accuracy
Example queries are indexed and fetched using Azure AI Search to ensure that only the most relevant examples are used to inform DAX query generation for each question.

AI-Driven DAX Query Generation and Execution
Natural language queries are mapped to schema-aligned DAX, which is executed in Power BI and returned as real-time analytical answers.

Insight Summary for Better Decision-Making
Query answers are summarized in clear, business-user-friendly language, allowing for faster decision-making about spend optimization, carrier analysis, and operational efficiency.

Qualitative Question Responses

Website & Documentation Assistant Module

Centralized Documentation Indexing
The client's Confluence documentation is indexed after being processed into meaningful chunks and then stored in Azure AI Search for accurate knowledge retrieval.

Semantic Search-Based Answer Retrieval
The user's questions are used to perform semantic searches to fetch the most relevant documentation, ensuring that the answers are based on official and accurate documentation.

Documentation-Grounded AI Responses
The responses are generated by the assistant strictly from the Confluence documentation, ensuring consistency, accuracy, and authenticity of the answers.

Dynamic Content Updates
New content is indexed as documentation changes, and outdated pages are replaced to ensure that the users are provided with the latest relevant answers.

Simplified Product and Website Understanding
Documentation is converted into a conversational interface, allowing users to easily understand product features, workflows, and setup procedures without having to visit multiple pages.

Unified Functionality and Impact

Single Conversational Interface Across Data and Knowledge

The assistant provides a single conversational platform that combines Power BI analytics with Confluence documentation to eliminate tool-related experience breaks.

Automatic Context Differentiation

The system uses intelligent methods to separate quantitative analytics questions from qualitative documentation queries so it can provide the correct corresponding answer.

Analytics and Knowledge Intelligence Integration

Natural language questions are transformed into DAX-driven insights or RAG-based documentation answers through Azure AI Search and Large Language Models.

Smooth Insight and Explanation Delivery

Users are provided with accurate insights, summaries, and explanations without having to navigate through dashboards, reports, or manuals.

Value Delivered

Accelerated Productivity	Users can easily access spend data insights, carrier performance data, and document answers without having to search Power BI dashboards or Confluence pages manually.
Accurate and Well-Founded Responses	Responses to analytical queries are based on schema-driven DAX calculations, and document responses are well-founded on indexed Confluence content.
Decreased Support Burden	The self-service nature of analytics and product data access decreases reliance on support teams and limits the need for enterprise-wide Power BI licenses.
Informed Decision-Making	Summarized information, contextual explanations, and direct access to data enable informed decision-making.
Scalable, Future-Ready Architecture	The architectural design permits system growth through its ability to integrate extra datasets and Power BI workspaces and extended documentation libraries while maintaining low operational costs.

About Happiest Minds

Happiest Minds Technologies Limited (BSE, NSE: HAPPSTMNDS) is an AI First, customer-centric digital engineering company committed to delivering 'Happiest People . Happiest Customers'. With an integrated approach that spans from chip to cloud, Happiest Minds delivers secure and scalable solutions across product engineering, cybersecurity, analytics , and automation platforms. Happiest Minds brings purpose and precision to every engagement, helping enterprises solve complex business challenges and fast-track their digital evolution across industry sectors such as Banking, FinancialServices&Insurance (BFSI), EdTech,Healthcare & Life Sciences,Hi-Tech and Media & Entertainment, Industrial,Manufacturing,Energy & Utilities, andRetail,CPG& Logistics.

Happiest Minds has been honored by both the Golden Peacock Awards and the Institute of Company Secretaries of India (ICSI) for its exemplary Corporate Governance practices. Guided by its mission of 'Happiest People . Happiest Customers' and consistently recognized as a great place to work, Happiest Minds is headquartered in Bengaluru, India, with a global presence across the Americas, UK, Europe, Australia, the Middle East, Africa, and Asia.

For more information, write to us at
business@happiestminds.com

www.happiestminds.com

happiest minds
AI FIRST. AGILE ALWAYS.