

# Level Up Your Insights Game with Gen AI and RAG (and why it matters!)

**Empower your teams with Generative AI and Retrieval Augmented Generation (RAG) solutions that drive improved, grounded, data-driven decisions.**

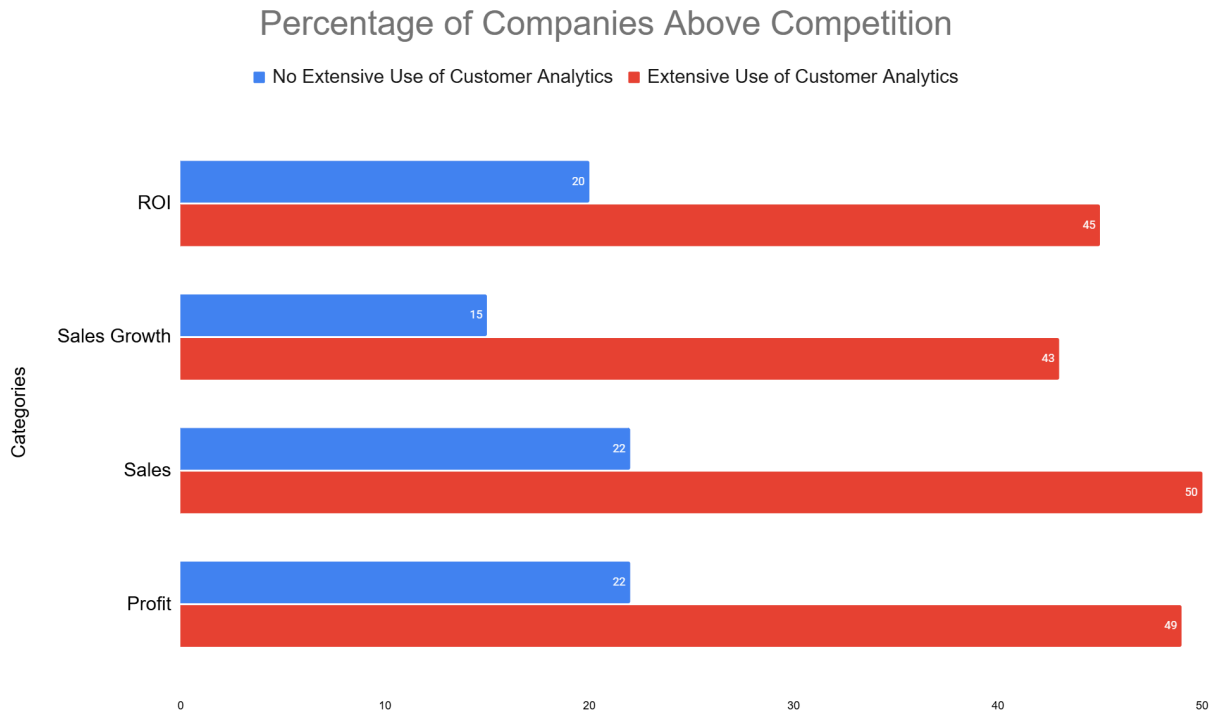
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No matter what business you're in, understanding trends, performance metrics, and operational insights is essential. Traditional data analysis methods are comparatively slow and susceptible to human error, making it difficult to keep up with real-time demands. To maintain a competitive edge, businesses must adopt innovative solutions that deliver actionable insights rapidly and accurately. Large Language Models (LLMs), like Gemini AI, GPT-4, or Mistral AI that are properly integrated with enterprise data platforms, can effectively streamline data analysis and drive business growth.

According to McKinsey, companies that effectively use customer analytics are significantly more likely to outperform their competitors - 23 times more likely to outperform in customer acquisition and 19 times more likely to achieve above-average profitability.<sup>(1)</sup> **Figure 1** highlights the stark difference in business outcomes between companies that leverage customer analytics effectively versus those that do not:

- **Return on Investment (ROI):** Companies with extensive customer analytics are 123% more likely to surpass their competitors, demonstrating the significant advantage of leveraging data-driven insights.
- **Sales Growth:** Companies that invest in customer analytics achieve 127% more sales growth than their competitors, showcasing the substantial advantage of leveraging data-driven strategies.
- **Sales Performance:** Companies investing in customer analytics are 187% more likely to exceed sales benchmarks, highlighting the significant impact of leveraging analytics to outperform competitors.

- **Profit Margins:** Companies that employ extensive customer analytics experience a 125% boost in profitability, demonstrating the substantial benefits of data-driven decision-making.



**Figure 1** - Extensive use of analytics drives corporate performance

## Integrate an LLM with your enterprise data to accelerate time to insight

Another McKinsey study highlights that 20 to 25 percent of US healthcare spending is wasted—approximately a trillion dollars. Remarkably, 50 to 75 percent of this waste could be eliminated through better data utilization, highlighting the critical importance of leveraging advanced technologies for efficiency (2).

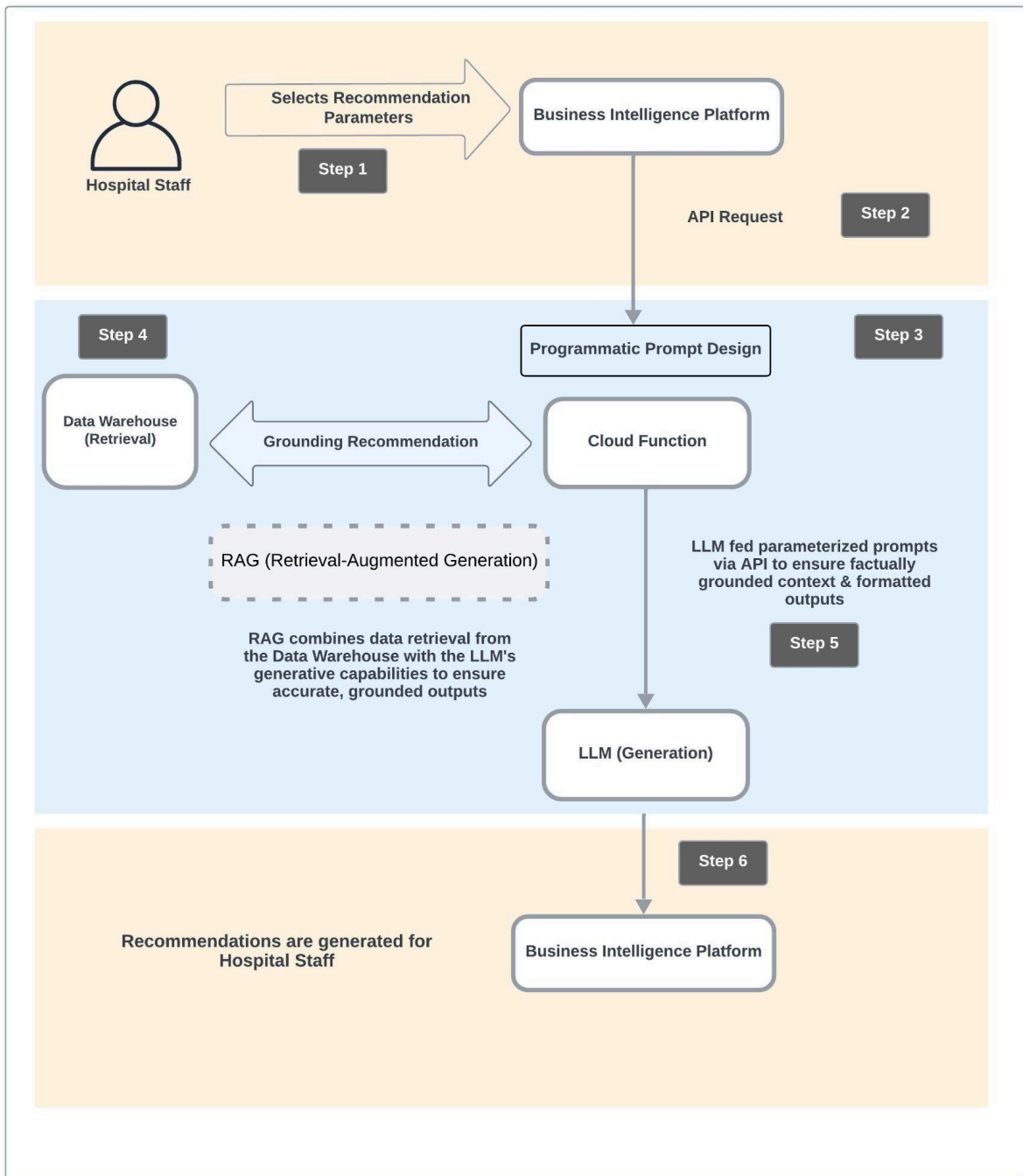
To illustrate the potential of using LLMs with a company's data, consider this scenario where an organization integrates its operational and performance data with an LLM and a business intelligence (BI) platform. Imagine a hospital network grappling with high patient readmission rates and inefficient

resource allocation due to fragmented patient data across departments. Administrative tasks consume excessive staff time, detracting from patient care quality. To tackle these challenges, the hospital network integrates an LLM with their electronic health records (EHRs) and operational data to predict patient readmission risks, optimizing staffing and equipment use by analyzing trends, documentation, and compliance reporting.

These insights would be incorporated into dashboards where hospital administrators gain visibility into key performance metrics and AI-generated recommendations for actionable improvement. This is accomplished through BI dashboards that are supplemented by Retrieval Augmented Generation (RAG) search and filters, enabling business users to select different parameters, readmission rates, or equipment usage levels. These inputs prompt the AI-enabled application to read enterprise databases first, then guide the connected LLM model to return actionable guidance and insights in the form of visualizations and natural language insights. This concept of RAG is fundamental to enterprise-grade AI solutions. It refers to combining LLMs with factual (grounded) enterprise data, in this instance the hospital's data warehouse, to produce accurate and contextually relevant insights. LLMs cannot do this on their own, but when combined with data through precise prompt engineering, this powerful combination produces real-world results.

In this case, the hospital network gains faster and more accurate insights into patient readmission risks, staffing and equipment usage, process documentation, and compliance reporting that reduces operational costs and improves overall patient care. This example and solution approach address specific operational challenges and demonstrates the power of improved data-driven insights. By leveraging better data utilization, teams can reduce waste, identify optimization opportunities, and receive prompt, actionable recommendations.

**Figure 2** outlines the workflow of this RAG-enabled AI application.



**Figure 2** LLM AI Work Flow Diagram Example

**Step 1: User interaction in the application (BI dashboard):** Hospital administrators and staff begin by selecting specific parameters for recommendations within a BI platform (such as Power BI, Looker, or

Tableau). For example, they might request insights into patient readmission trends or equipment utilization rates. This interaction defines the scope of the analysis and the data categories to be used.

**Step 2: Programmatically call APIs to retrieve requested data:** Once parameters are selected an API call is made from the BI platform to the backend systems (the contextual enterprise data, in this case the enterprise data warehouse). This API call initiates the next step by passing the selected parameters for downstream processing.

**Steps 3 and 4: Receive grounded data and create augmented prompts:** Using output from step 2 (company data), cloud functions programmatically create augmented and dynamically generated prompts tailored to the business user's request. These prompts integrate the hospital's operational data and ensure LLM-generated insights are accurate and appropriately factor in the hospital's operational realities.

**Step 5: Integrate prompts into the LLM for generative output creation:** The retrieved data and generated prompts from steps 3 and 4 are programmatically integrated via API calls into LLMs, such as GPT-4, Gemini, Claude, or Mistral. This method combines real-time data retrieval with additional prompting for the LLM to summarize findings, to predict specific risks, or to suggest resource reallocations to prevent future patient readmission.

**Step 6: Present AI generated results to the user:** The GenAI recommendations are sent back to the BI platform, where they are visualized as actionable insights through charts, tables, or commentary summaries. Hospital administrators can immediately interact with the summarized findings, recommendations, and supporting metrics to make informed data-driven decisions.

By incorporating this solution, the hospital network is better positioned to reduce patient readmission rates and operational costs while improving staff productivity and patient satisfaction. With proper data and engineering, this entire cycle takes **less than 10 seconds** of runtime to deliver relevant and actionable insights!

# **RAG-enabled LLM integrations deliver tangible operational business benefits**

## **Accelerate Time to Insight**

One of the most significant benefits of this integration is the improvement in efficiency and speed. Automating the initial stages of data analysis may reduce the time required to process and interpret large volumes of information by streamlining data aggregation, eliminating manual tasks, and enabling faster generation of actionable insights. Integrating LLMs like Gemini, GPT-4, or Mistral AI with cloud-based data warehouses and BI platforms enables near-real-time processing and analysis of customer feedback data. Utilizing LLMs and RAG—a technique that retrieves relevant information from both internal and external sources and combines it with the model's response capabilities—generates comprehensive outputs almost instantly. This automation shifts teams' focus from the manual labor of data analysis to prioritizing strategic insights.

## **Improve Accuracy and Unlock Hidden Perspectives**

Beyond speed, the accuracy and depth of insights provided by AI-enhanced solutions are unparalleled. Traditional manual analysis is prone to human error and can overlook subtle patterns in the data. In contrast, AI algorithms, particularly those employing RAG techniques, excel at identifying intricate patterns and insights that human analysts might miss. The LLM synthesizes diverse perspectives from data, providing concise and well-organized analyses. This ability to combine multiple viewpoints ensures that the insights generated are both comprehensive and actionable, empowering teams to deliver deeper, more nuanced recommendations.

## **Humans and AI Must Collaborate for Success**

While AI can automate data processing and analysis, human expertise remains essential in curating the most contextually relevant insights. The role of the business expert is crucial in interpreting these outputs, ensuring that

the final strategy is both data-driven and tailored to the specific business context. This collaboration ensures final outcomes are expertly curated, leading to more precise and impactful decisions.

**Key benefits of this Human+AI collaboration include:**

- **Enhanced Decision-Making:** By understanding data insights more effectively, teams can make decisions that align with organizational goals.
- **Improved Operational Efficiency:** Targeted recommendations streamline processes and address specific pain points, allowing teams to focus on strategic initiatives and improving overall efficiency.
- **Accelerated Business Growth:** By leveraging insights to make informed strategic decisions, organizations can scale their efforts, delivering more impactful outcomes with less effort in the analysis phase.

## **The Future of AI-Driven Recommendations**

As we continue to refine our use of LLMs, we must commit to enhancing the accuracy and utility of the insights they provide. The combination of advanced AI-ML, LLM technologies and human expertise has already set a new standard for how companies can utilize feedback to drive success. At Method360, we believe that by maintaining a strong focus on accuracy, grounding insights and recommendations in data, and expert collaboration, we can continue to push the boundaries of what's possible with AI-driven insights. Let's redefine the possibilities together.

**About us:** [mXa](#), on the 20+ year foundation of [Method360](#), was founded to intentionally serve fast-growth companies and the unique challenges they face. We understand that inorganic and organic growth provokes change, ambiguity, and uncertainty that can deeply burden the organizations involved. By seeking to understand the human element in M&A and fast growth environments, mXa embraces a unique, contrarian approach in advising clients that seeks to realize maximum value for them in alignment with business objectives.

**Interested in learning more about our capabilities or discussing your AI story? We're here to help.**

**Sources:**

1. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/five-facts-how-customer-analytics-boosts-corporate-performance>
2. <https://www.mckinsey.com/industries/healthcare/our-insights/administrative-simplification-how-to-save-a-quarter-trillion-dollars-in-us-healthcare>