**1. What did you do?**

I analyzed the analysis made in Research Report 1 regarding the company’s lack of an effective and efficient HCM system. I crafted a prompt for ChatGPT to assess the importance of an effective and efficient HCM system for a construction company with over 10,000 employees. The prompt used was as follows:

*As a decision maker in a construction company with over 10,000 employees, consider the pros and cons of making a significant capital investment in an HCM versus a similar investment in a new ERP, or procurement and materials management system. All three systems are currently deficient; however, the business is operational with all current solutions. Considering the sensitivity of the workforce to payroll failures, onboarding complexity, and lack of employee self service, the HCM system is the most publicly facing of the three systems. Make a recommendation for which system replacement should be prioritized.*

The result of the query was as follows:

*When considering whether to prioritize a significant capital investment in an HCM system, an ERP system, or a procurement and materials management system in a construction company with over 10,000 employees, it's crucial to weigh the pros and cons of each option, particularly in light of the existing deficiencies and the sensitivity of the workforce to potential failures. Here's an analysis of the pros and cons of each option:*

***Human Capital Management (HCM) System:***

***Pros:***

* *Addresses critical workforce-related issues such as payroll failures, onboarding complexity, and lack of employee self-service, which directly impact employee satisfaction and productivity.*
* *Enhances employee engagement and retention by providing self-service capabilities, streamlined onboarding processes, and improved access to HR-related information.*
* *Supports compliance with labor laws and regulations, ensuring accurate payroll processing and reducing the risk of legal issues.*
* *Improves operational efficiency through automated processes for workforce management, performance evaluation, and training administration.*

***Cons:***

* *May require significant upfront capital investment, including the cost of software licenses, implementation, and training.*
* *Integration with existing systems and data migration can be complex and time-consuming, leading to potential disruptions in HR operations.*
* *Return on investment (ROI) may not be immediately apparent, as benefits such as improved employee satisfaction and retention may take time to materialize.*

***Enterprise Resource Planning (ERP) System:***

***Pros:***

* *Streamlines business processes across departments, including finance, procurement, inventory management, and project management, leading to improved efficiency and productivity.*
* *Provides real-time visibility into key business metrics and performance indicators, enabling data-driven decision-making and strategic planning.*
* *Facilitates integration and standardization of processes across the organization, reducing duplication of efforts and improving collaboration.*
* *Offers scalability and flexibility to accommodate future growth and changes in business requirements.*

***Cons:***

* *Implementation of an ERP system is often complex and resource-intensive, requiring significant time and investment.*
* *Customization and configuration may be necessary to align the system with specific business needs, adding to the implementation cost and timeline.*
* *User adoption challenges may arise, particularly among employees who are accustomed to existing workflows and systems.*
* *Integration with third-party applications and legacy systems may present technical challenges, potentially leading to data inconsistencies and operational disruptions.*

***Procurement and Materials Management System:***

***Pros:***

* *Improves visibility and control over the procurement process, leading to cost savings, better supplier management, and reduced risk of fraud or non-compliance.*
* *Enhances inventory management and demand forecasting, optimizing inventory levels and minimizing stockouts or overstocking.*
* *Streamlines purchasing workflows, automates approval processes, and reduces manual errors, resulting in increased efficiency and productivity.*
* *Supports strategic sourcing initiatives, enabling the identification of opportunities for supplier consolidation, contract renegotiation, and cost optimization.*

***Cons:***

* *May require significant upfront investment in software licenses, implementation, and training, particularly for large-scale deployments.*
* *Integration with existing systems, such as ERP or financial systems, may be necessary to ensure data consistency and process alignment.*
* *User adoption challenges may arise, particularly among employees who are accustomed to manual procurement processes or legacy systems.*
* *Return on investment (ROI) may depend on factors such as the organization's purchasing volume, supplier base, and ability to leverage procurement data for strategic decision-making.*

***Recommendation:***

*Given the sensitivity of the workforce to payroll failures, onboarding complexity, and the lack of employee self-service capabilities, as well as the public-facing nature of the HCM system, I recommend prioritizing the replacement of the HCM system. Addressing these deficiencies will have a direct and immediate impact on employee satisfaction, productivity, and compliance, thereby mitigating the risk of payroll errors and improving the overall employee experience. While ERP and procurement systems are important for streamlining business processes and improving operational efficiency, addressing the critical needs of the workforce should take precedence in this scenario. Once the HCM system is successfully implemented and operational, the organization can then consider investing in the replacement or enhancement of other systems, such as ERP or procurement, to further optimize business processes and drive long-term growth and competitiveness.*

**2. What were the results?**

My key takeaway is that how you structure the prompts for the engine will have a significant impact on the results. Any biases or preconceived notions that are passed to the engine will become a significant cornerstone of the response provided. For example if you were to ask for a recommended season for travel to Europe but, in the prompts include language that is more common or describes a particular season (words like hike, bike, walk, breeze, warm, sunny, etc.) the recommendation is more likely to be spring or summer, even though the intention wasn’t to bias the output. This tells me that how a question is asked is contextually relevant to the output derived. After playing with the engine I was able to manipulate the prompt to get it to recommend each of the alternatives to HCM.

**3. What did you learn?**

What I learned is that Generative AI is indeed powerful, but remains a long ways from being something that I would consider trustworthy for real business decision making. I found that the insights generated were just a rewording of the information I provided in the prompt. Ultimately, I didn’t fid it very useful and in the current iteration, I wouldn’t use it for much more than as a way to quickly learn the basics of a topic. I have used it to help write code and to help me understand technical syntax and structure for a technical topic and found this to be both helpful and time-saving; however, in the context of “real” business decision making, it is lacking. As with everything in technology, there are legitimate applications but the fear that Generative AI is going to take over the world and steal my job is, at least in it’s current and any foreseeable iteration, a long-shot at best. As an aside I took thew same prompt to Microsoft’s CoPilot and Google’s Gemini. All three recommended the HCM project; however, I found that Microsoft CoPilot’s response was better stated and contained some insights, like recommending consultation with experts. Gemini’s response was the only one that raised legal risks associated with not pursuing the HCM project. Ultimately, all three returned very similar responses; however, ChatGPT’s response was clearly influenced by subtle language in the prompt.

**4. How does it relate?**

The exercise reinforces the information we learned in the Week 8 lesson on Organizational Knowledge as well as the rapidly changing dynamic of general business landscapes. I used several AI tools in a recent software development project for another class and find the work product to be decent; however, responsibility for operational or functional requirements, like information security and code performance, still require humans. This exercise opened my eyes to how far the tools have come and how quickly large language model based AI solutions are advancing.