Quick Answer: How Do You Incorporate Generative AI Into Your Current ERP Strategy?

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Initiatives: ERP

The rise of generative AI is leading to countless questions about whether this is the right time to incorporate it into existing ERP strategies. This research helps applications and software leaders map the key questions and avoid making quick decisions that lead to disappointing outcomes.

Quick Answer

How do you incorporate generative AI (GenAI) into your ERP strategy?

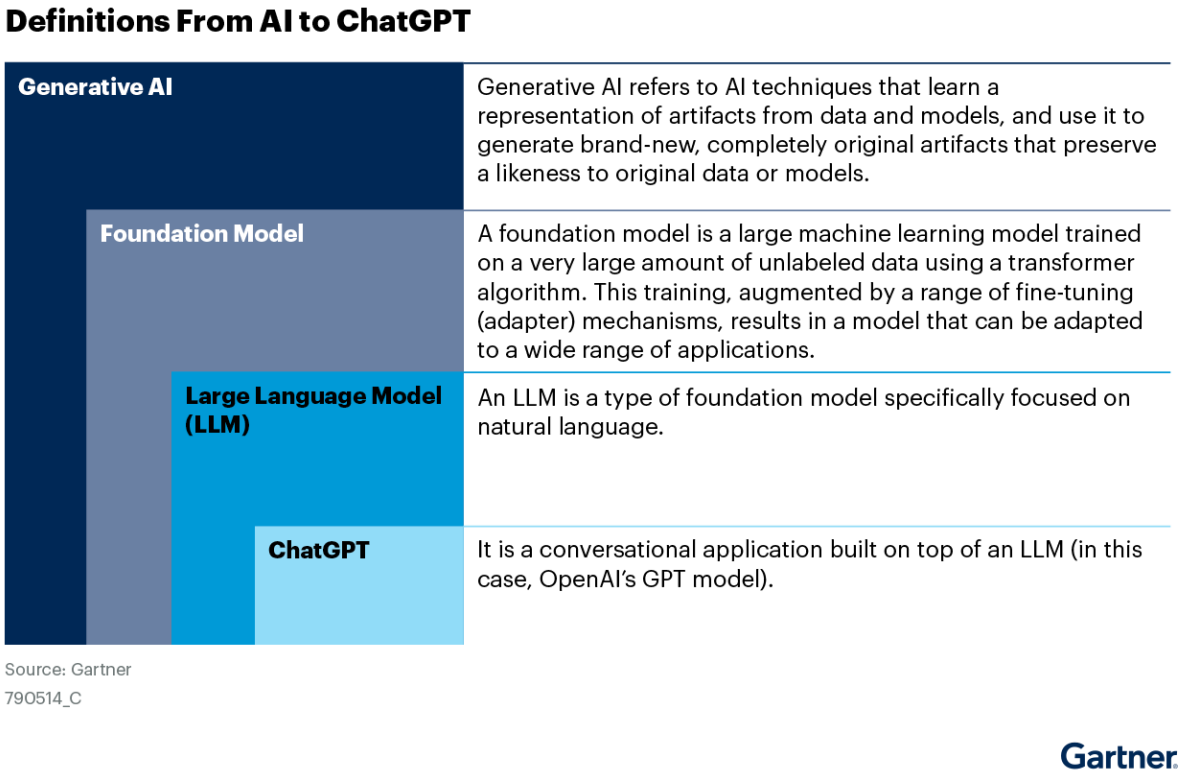
- **Understand what GenAI is:** There is a growing interest in GenAI among ERP leaders as it may potentially support innovation and automation use cases that previously required much larger investments. However, as with any technology, it will require a strategic mindset and an increased focus on outcomes to avoid quick disappointment.
- **Evaluate market options and maturity state:** ERP vendors are starting to respond to this demand by working on pilot use cases that drive GenAI along with other AI and machine learning (ML) capabilities already in use. Accordingly, application leaders must understand the fit of those offerings to their particular goals and expectations.
- **Ensure alignment with the broader ERP strategy:** Currently, most vendors are focused on developing use cases for their latest cloud ERP solutions and are not retrofitting them to their legacy on-premises solutions. Accordingly, applications and software leaders' overall AI adoption roadmap — including GenAI — needs to be aligned with core ERP renovation or replacement milestones. It must also include the availability of relevant and clean data to feed AI engines.

More Detail

What Is GenAI and Why Is It Important?

GenAI refers to AI techniques that learn a representation of artifacts from data, and use it to generate brand new, completely original artifacts that preserve a likeness to original data. It can produce novel media content (including text, image, video and audio), artificially-generated data — or synthetic data — and models of physical objects. For example, ChatGPT, an application developed by OpenAI, sits on top of a large language model (LLM) and is the most widely known GenAI due to its explosive growth in end-user adoption. See Figure 1 for a graphical definition of the elements of GenAI, which includes foundation models and LLMs.

Figure 1: Elements of Generative AI



GenAI will likely progress rapidly in technology commercialization for a wide range of business applications. Given the operational nature of ERP, GenAI has the potential to enhance and improve business outcomes, and work with other AI technologies, such as predictive analytics or ML, to automate process execution, thus leading to productivity efficiencies and data insights. With GenAI, the ability to derive business value from novel combinations of content and data, ERP solutions and other sources should become significantly easier.

Evaluate Market Options and Maturity State

ERP vendors are starting pilot use cases that drive GenAI and other AI and ML capabilities already in use. Examples of GenAI within ERP use cases include:

- **Human capital management (HCM):** It can help derive position-description text for a newly open position based on the skills required for the role or derive text for documenting performance reviews.
- **Supply chain and customer order processes:** It can use analytics to highlight supply chain issues that may impact existing open orders and autonomously produce an email or text message to customers.
- **Manufacturing:** It can use analytics to predict shop floor equipment failure, which could prompt a repair work order along with GenAI-produced documentation on troubleshooting and repairing the equipment.
- **Finance:** It can produce periodic reporting and narratives explaining variances.

While GenAI technologies have existed for some time, the most recent capabilities indicate an ability to scale these technologies in ways that were not available just a few years ago. At this point, ERP vendors are only focused on introducing use cases within their latest ERP solutions delivered in the cloud. Also, they are not retrofitting these to work with legacy, on-premises solutions.

GenAI can also be associated with adoption roadblocks, such as:

- The compute resources for training large models are costly and not affordable to most enterprises, which may benefit only large ERP vendors, much earlier than their Tier 2 competitors.
- Explainability of GenAI results will be challenging in the near term due to the exponential number of parameters being assessed during any GenAI action.
- While there is a presumption that ERP vendors will incorporate appropriate control levels over GenAI capabilities, organizations must ensure that there are no material internal control issues, particularly in finance processes.
- GenAI can be used for fraud, malware, disinformation and instigation of social unrest — and regulations may hinder research efforts.

Ensure Alignment With the Broader ERP Strategy

Applications and software leaders responsible for ERP must take a pragmatic position as they guide their organizations in assessing the opportunities and risks of GenAI. Given the large population of customers of ERP vendors that continue to run legacy, on-premises solutions and have not yet started to migrate to the latest cloud-based solutions, it is imperative to:

- Develop and curate an ERP strategy that is directly connected to the overall enterprise strategy and goals. Ensure the ERP strategy will enable processes and analytics that support the expected business outcomes of the enterprise strategy. This has to be an ongoing exercise. Ensure alignment between the adoption of GenAI goals and the enablement of your ERP SaaS, platform as a service (PaaS) or infrastructure as a service (IaaS) — if those exist.
- Understand the data requirements to support credible insights into the GenAI mechanism under consideration. Ensure relevant and credible data is available to support the GenAI use cases before going into full adoption. Do not assume that the reliability of those insights will be very high until enough data is available.
- Assess ERP vendor roadmaps to understand how they are using existing AI technologies and planning to incorporate GenAI use cases into their solutions. Use these roadmaps to inform your ERP strategy and ensure that these AI technologies, including GenAI, can provide benefits to meet overall enterprise goals and objectives.
- Manage stakeholder expectations until your own experiences or credible case studies reveal the effectiveness and risks of GenAI evolution.
- Identify scenarios where the technology is not appropriate or permitted. For example, data privacy and anonymization requirements may stop you from getting meaningful insights. This must include individual grants to access data inside the organization.
- Establish who will decide and enforce a governance process. Determine the criteria for continuously evaluating whether ERP applications with AI capabilities will work to their satisfaction and produce trustful outcomes.
- Determine cost models for different levels of anticipated adoption and usage to extrapolate potential ROI requirements. Ensure licensing, consumption or data egress charges are part of the evaluation.

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