



BRIDGING THE DEMAND DIVIDE: HARNESSING GENAI IN ACCELERATING RESOURCE FULFILLMENT

Insights

- In today's fast-paced business landscape, while almost \$48 trillion is invested in projects annually, only 35% of these projects are deemed successful.
- Gartner's research suggests that by 2030, Artificial Intelligence will handle 80% of project management tasks, leveraging big data, machine learning (ML), and natural language processing technologies.
- According to the latest industry reports, Generative AI has the potential to boost global GDP by 7%. Given the challenges associated with traditional demand management methods, GenAI has emerged as a promising solution.

Known to be a focused effort at creating something distinct—be it a product, a service, or an outcome—a **project** is inherently temporary, making it key to achieving specific goals within predetermined time constraints.¹ Before 1958, project success was believed to be influenced by arbitrary elements such as the capabilities of team members, the expertise of those in charge, or the affordability, accessibility, and availability of necessary resources.²

Having said that, it is due to note before the advent of modern project management techniques, ancient endeavors such as the awe-inspiring Pyramids or the likes of the Taj Mahal have been instrumental in laying the groundwork for contemporary project management tools and processes. The lessons learned have shaped the evolution of project management: shifting the focus from 'end results' and 'internal processes' to 'principles-based approaches'.^{3,4}

Across these phases, an important insight is the **impact of technological advancements on project management processes**—spanning from the initial use of Gantt Charts through the introduction of the Agile Manifesto in recent years, technology has been an important medium in implementing changing approaches to managing projects.

What's next: AI-powered Project Management Systems

In today's fast-paced business landscape, while almost \$48 trillion is invested in projects annually, only 35% of these projects are deemed successful.⁵ A key factor recognized in contributing to this low success rate is the basic technology used for managing projects like 'spreadsheets', 'slides', and 'Portfolio Management Applications'.

These tools may be useful when monitoring deliverables, but they fall short of addressing the current need for planning capabilities and improving team collaboration, making it necessary to implement automation and intelligent technologies.

To further exemplify, Gartner's research suggests that by 2030, Artificial Intelligence will handle 80% of project management tasks, leveraging big data, machine learning (ML), and natural language processing technologies.⁶ AI-powered project management systems can analyze vast amounts of historical data to provide accurate predictions, optimize resource allocation, and automate routine tasks, allowing project managers to focus on strategic decision-making and stakeholder management.

What's crucial: Managing expectations and fulfilling needs

Where technology is a vital external element influencing project execution success rates, the efficiency of internal processes throughout the project management stages, from initiation to closure, is equally significant.

Successful project execution heavily relies on efficient demand management, which is closely tied to the timely and appropriate fulfillment of resource requirements, particularly in terms of talent. Take a look at how a typical demand management process operates using basic technological tools and application platforms:



Figure 01: A typical demand management process

¹(t | ²Jr., 2017)(Max, 2024) | ³(Kumar, 2024 | ⁴(Belyh, 2023) | ⁵(Nieto-Rodriguez & Vargas, 2023) |

⁶ (Nieto-Rodriguez & Vargas, 2023)

Examining a typical resource fulfillment process based on traditional methods

Sourcing the ideal candidate at the right moment can be difficult, whether from external sources or the existing internal talent pool, given various project constraints such as budgets, skill sets, and deadlines. Here, the lack of a robust resource fulfillment management system can lead to adverse outcomes, including missed business opportunities or prolonged project timelines, ultimately affecting the client's overall experience.⁷

Heavily reliant on human involvement throughout the demand management workflow and decision-making process, this method does offer a personal touch essential for evaluation, customizing experiences, and fostering relationships, but is also extremely time-consuming and can result in delays as well as biased and subjective assessments. Here's a further look at some of these challenges.



Figure 02: Probable bottlenecks in each stage of the demand management process using traditional methods

Examining from Step 1, when the Project Manager receives a client's resource request, to the final stage of allocating the talent -

Compromised data quality and delays: The request logged in Step 2 serves as crucial data guiding subsequent activities. In traditional approaches, this step is performed manually, potentially leading to delays and inaccuracies. This is true for all the activities wherein data is plugged in manually right from registering the talent skills to the interview results. Consequently, any delay or error in the initial step can have a cascading effect on the subsequent stages.

Subjective decision-making: Furthermore, the presentation of data and insights from various angles is contingent on the spreadsheet and slide-making skills of the person handling the data. Comprehensive views may not be readily available. Inadequate presentation of data can also lead to subjective decision-making at a later point as a spill-over effect.

The interview process: When the required expertise to be evaluated involves cutting-edge technologies, cross-departmental coordination, and a limited number of available interviewers, it can lead to a greater waiting time and loss of opportunity. Additionally, the outcome of interviews heavily relies on subjective human assessment, which may introduce potential bias.

Project Manager's efforts in coordinating and monitoring: Project Managers often find a substantial portion of their time and energy consumed by various repetitive tasks, including correcting mistakes, addressing process limitations through manual intervention, and relearning procedures due to the lack of historical data. These demanding responsibilities can potentially lead to burnout and exhaustion for them.

⁷(Memon, 2024)



Scalability and flexibility: The conventional method may struggle to meet future expanding and rapidly changing needs due to its lack of scalability and flexibility features when data becomes big and processes become complex.

Thus, the extensive need for human intervention can potentially compromise the accuracy and accessibility of data concerning the talent pool, workforce availability, resource utilization rates, and ideal project data representation. These factors are crucial in determining the efficiency of a demand-management process.

Need of the hour?

A *comprehensive resource management system*⁶ that provides a complete view of the company's: talent pool in terms of skills and capabilities, workforce availability at any given point in time, resource utilization rate, and information on past, ongoing, and upcoming project data.

It plays a crucial role in facilitating optimal resource allocation, informed decision-making, and cross-functional collaboration. As a result, organizations can leverage the collective strengths of their workforce, adapt more quickly to changing market conditions, and maintain a competitive edge in their respective industries.

Enter GenAI: The key to building effective resource fulfillment processes

Generative AI (GenAI) encompasses computational methods to produce meaningful novel content such as text, images, or audio based on training data. While GenAI systems are popularly employed for creative purposes, they also serve as intelligent query systems to assist humans. According to industry reports, generative AI has the potential to boost global GDP by 7%.⁸

Given the challenges associated with traditional demand management methods, GenAI has emerged as a promising solution. These AI-driven platforms assist human facilitators and interviewers in making informed, data-based decisions. The below figure depicts how GenAI can intervene at various stages of the resource-fulfilling process to deliver desired outcomes.

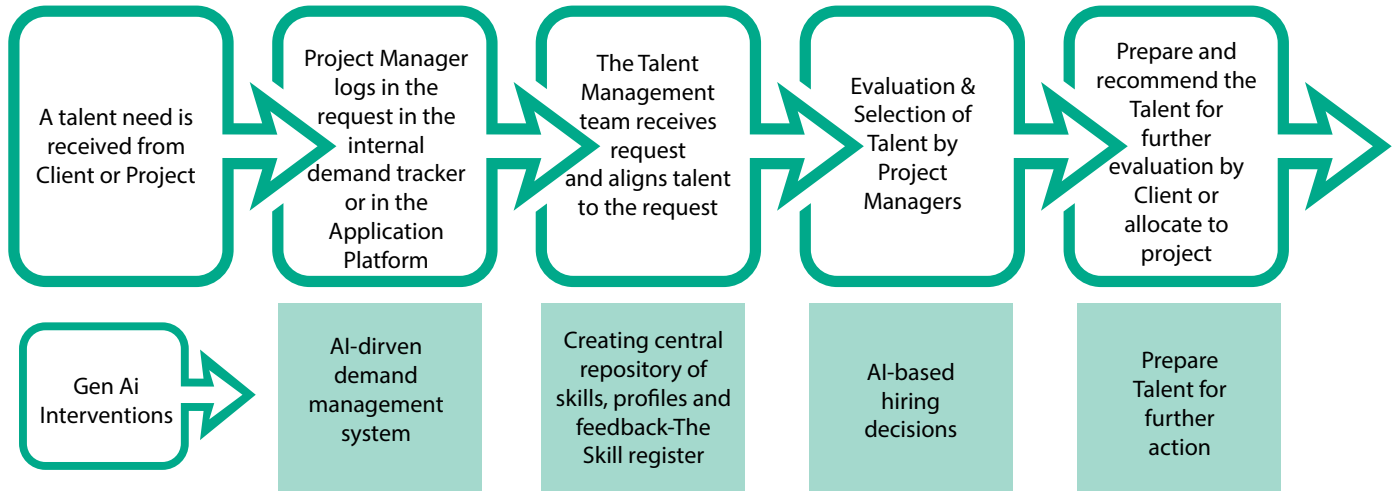


Figure 03: GenAI intervention in each stage of the demand management process

The adoption, deployment, and incorporation of GenAI technologies in the resource fulfillment processes, particularly in selecting the right talent, presents several benefits. It improves

operational efficiency, minimizes manual involvement and time requirements, elevates the applicant experience, and reduces biased decision-making.



⁸(Feuerriegel, Hartmann, & Janiesch, 2023)

Furthermore, it provides a flexible approach to meet future demands as skill requirements change over time by leveraging the huge amount of data stored during each transition. Take a

look at the stepwise resolution this emerging technology has to offer as opposed to traditional methods:

Stages: Resource fulfillment process	Challenges: Using traditional methods	Resolution: Leveraging AI Framework
<p>The Project Manager logs in the request in the internal demand tracker or the application platform</p>	<ul style="list-style-type: none"> • Possible delays in logging • Error in recording, overwriting • Limited view of the data due to dependency on the presenter's skills • Repetitive tasks 	<p>An AI-driven demand management system can provide:</p> <ul style="list-style-type: none"> • Timely data with automated activities • Prioritization of talents • Best match within the team • A role/ratio mix • Various views and insight summarization on aging, demand fulfillment, etc. • A consolidated view on demand summarization, prioritization, etc. • Elimination of repetitive tasks
<p>The Talent Management team receives the request and aligns the talent</p>	<ul style="list-style-type: none"> • Further delays • GIGO- Erroneous requests will lead to wrong mappings • Limited information/data representation will impact decision-making • Manual intervention in allocation • Lack of a shared central talent pool • Accessibility constraints • Human judgment during screening • Inaccuracy in the skills captured 	<p>Gen AI-driven platform can create talent skill registers that can also:</p> <ul style="list-style-type: none"> • Look at projects and skills leveraged in the project, do an auto-correction of the talent skills • Leverage the demand platform to identify technology on which reskilling needs to be done • Notify aging talent on reskilling based on pipeline demands • Do the initial profile screening and summarize the skillset • Create a repository of profiles and feedback
<p>The Project Manager evaluates and selects the talent</p>	<ul style="list-style-type: none"> • Judgment error • Lack of skilled interviewers for niche skills • Biased selection • Burnout due to multiple tasking, more coordination, and repetitive tasks 	<p>Gen AI can assist the decision-making of the interviewers by:</p> <ul style="list-style-type: none"> • Doing the 1st level profile screening with scenario-based evaluation • Interview scheduling • Provide scenario-based questions to interviewers • Iteratively assist in evaluation to pick up cues from previous responses of the candidate to evaluate skills holistically • Detect impersonification or fraudulent cases by analyzing historical data, candidate behavior, and captured images, screenshots, voice • Capture insights and provide feedback to the interviewers • Strengthen the Interview questions and feedback repository

Prepare and recommend the talent for further evaluation by the client, or allocate to the project

- Missed business opportunities
- Prolonged project timelines
- Negative client experience
- Employee attrition

Gen AI can:

- Provide insights to the PM on candidate readiness
- Provide candidates insights on improvement areas
- Suggest further evaluation steps
- Look at the repository and share Qs relevant to the area
- Framework availability across a group of projects so that insights can be shared across managers looking at similar profiles to avoid duplicate efforts
- Interview feedback can be integrated with different internal platforms like PMS and talent repository for future references



Looking ahead

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Pubali Giti Borthakur, Head, People & Deliver, Arena, DNAFS. Consequently, it has become increasingly essential to abandon traditional methods of addressing resource needs. Instead, organizations should integrate advanced technologies like Generative AI into their internal processes, such as resource fulfillment systems.

This integration facilitates timely and effective decisions, fostering growth and creating new opportunities. Additionally, organizations can proactively plan their workforce. Further, by integrating vast amounts of data, with the market trends, employee performance metrics, and industry forecasts, these AI systems can provide valuable insights for strategic decision-making.

Moreover, the adoption of such technologies can significantly reduce the time and costs associated with traditional resource-fulfilling processes, enabling companies to remain agile and competitive in rapidly evolving markets.

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