

Agile in ERP Implementation

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ABSTRACT

72% of ERP implementations fail, primarily due to long implementation timelines and rising costs. Small and medium-sized companies are often burdened by lengthy implementation timelines with no clear outcome. The traditional "waterfall" methodology, which originated in the legacy software era, is often to blame. In the waterfall approach, requirements are first gathered and documented, which can take several months on their own, before implementation begins. It has been discovered that this method leads to an increase in ERP implementation costs, as well as wasted resources and energy.

Implementing an ERP system is a complex undertaking that requires careful planning and execution. The success or failure of the implementation can depend on the approach taken, with two common methods - agile and waterfall.

While the waterfall method follows a linear approach, agile methodology is dynamic and allows for continuous improvements and interactions with various areas of implementation.

In practice, agile ERP methodology has proven to be a game-changer, offering numerous benefits that save time and decrease the risk of failure. Companies that have implemented agile ERP methodologies have reported increased efficiency, improved project visibility, and enhanced customer satisfaction.

This whitepaper focuses on the implementation of Agile ERP and provides valuable insights that are universal and applicable to any ERP implementation project. Adopting agile ERP methodologies enables companies to drive innovation, stay ahead of the competition, and achieve their desired outcomes.

UNDERSTANDING AGILE

Agile is a framework that is used to manage projects, particularly in software development. It emphasizes collaboration, flexibility, and adaptability in the face of change. The Agile framework was first introduced in 2001 through the Agile Manifesto, which was created by

a group of software developers who were seeking an alternative to traditional project management methodologies that were often rigid and cumbersome.

Since then, the Agile framework has gained widespread adoption across various industries, including ERP implementation. With its iterative and incremental approach, Agile allows for greater flexibility and faster time-to-market, which is particularly important in today's fast-paced business environment. In contrast to traditional waterfall methodology, which involves a linear sequence of phases, Agile encourages collaboration between team members and stakeholders throughout the project lifecycle, leading to better outcomes and higher customer satisfaction.

1.1 Start Small and Iterate

Agile ERP implementation begins with a small team, ideally cross-functional, that works together in sprints to develop and test specific functionalities. This approach is often referred to as the Minimum Viable Product (MVP), which enables the implementation team to prioritize the most important features of the ERP system.

Starting small also means that the implementation team can identify potential issues early on and address them quickly, reducing the overall risk of project failure. By developing the MVP in iterations, companies can ensure that the system meets their specific business needs and is aligned with their strategic objectives.

1.2 Adapt with Each Iteration

One of the core principles of Agile ERP implementation is the ability to adapt with each iteration. As the ERP system takes shape, new requirements may emerge, and existing requirements may change. This requires a flexible approach to development, where the team can respond quickly to changing needs.

By adapting with each iteration, the implementation team can continuously improve the ERP system, ensuring that it remains aligned with the evolving needs of the business. This approach also enables the team to identify any gaps in the

system early on, reducing the risk of costly rework at later stages.

1.3 Add Resources as Required

Agile ERP implementation recognizes that the needs of the business can change rapidly, and as such, the implementation team must be able to respond quickly by adding resources as required. This means that the team must be able to scale up or down depending on the needs of the project.

By adding resources as required, the implementation team can ensure that the ERP system is developed within the required timeline and budget. This also means that the team can leverage the skills and expertise of additional resources to deliver a system that meets the specific needs of the business.

Agile ERP implementation is a flexible and iterative approach that enables companies to develop an ERP system that is aligned with their business needs and reduces the risk of project failure. It helps deliver an ERP system that drives business growth and innovation.

2 Adapting Agile for ERP Implementation

The Agile framework has been successfully applied to ERP implementations, but certain adaptations are necessary. Some agile practices, such as forming small, cross-functional teams with dedicated product owners and working in short cycles, can be directly applied. However, other practices, like defining the entire scope upfront, need to be adapted to ensure consistent development.

To achieve consistent development, more emphasis is needed on business processes and architecture, and work must be split among small teams. Linkages between agile and nonfunctional teams must also be strong to maintain synchronization.

In ERP implementation, delivering "production-ready" software is not as frequent as in typical agile software development. Instead, a phase of end-to-end testing and cut-over is required to consolidate increments delivered by individual teams and test complex interfaces with legacy systems.

To facilitate faster resolution of issues and cross-team decision-making, a strong agile program management office (PMO) should be established.

Unlocking The Full Potential Of Agile ERP Improving outcomes, reducing costs, and driving growth

ERP solutions remain important for small to large enterprises as they offer end-to-end

integration and process standardization across geographies and business units. While trendy topics like digital, big data, machine learning, and cloud have taken priority, businesses do benefit from ERP solutions, making them a fundamental asset for most large companies.

Agile methodology has gained popularity due to its impressive outcomes. According to research, companies that follow the agile approach have a 70% chance of being among the top quartile of organizational health, which is an excellent indicator of long-term performance. Additionally, these companies achieve a range of benefits, such as enhanced customer centricity, faster time-to-market, lower costs, higher revenue growth, and a more engaged and productive workforce.

³When it comes to ERP implementation, adopting an agile approach leads to both tangible and intangible advantages.

- Can reduce program costs by 10% by minimizing rework in E2E testing and UAT phases.
- Can increase the program's value by 20% by providing product owners with greater visibility into project progress and enabling them to focus on high-value items.
- Enables functional teams to work more efficiently, resulting in a threefold increase in workload that can be completed within a certain timeframe.
- It leads to wider and improved adoption of solutions by end users as they are involved throughout the implementation process.
- Improves team morale by providing measurable daily progress.

The next-generation ERP solutions offer even more promising functionalities and capabilities, both technologically and in their application. Linking new technologies to the ERP base is essential to unlock the full potential of digital transformation and advanced analytics programs. Though IT professionals have long believed agile to be incompatible with ERP, our experience has proved the opposite: that agile can successfully be applied to ERP programs, with quantifiably better results. The methodology simply has to be adapted to the unique requirements of these complex solutions.

Revolutionize Your ERP Implementation With Agile Methodology

⁴The traditional approach to ERP implementation involves four stages: creating an ERP strategy and roadmap, program setup, implementation, and deployment. However, each

of these stages needs to be adjusted to incorporate agile delivery methods.

Creating An ERP Strategy & Roadmap

The creation of an ERP strategy and road map involves defining a target architecture with general principles and a business justification for implementing the new solution. While this stage remains mostly the same, it can be sped up by conducting a quick fit-gap analysis at a high level instead of an exhaustive blueprinting process, and by working iteratively in sprints to prevent an overly intricate business case. To achieve program objectives, small, cross-functional teams should be established and product owners should be engaged early on and given the authority to make critical decisions.

Project Setup

In an agile approach, setting up the ERP program undergoes a significant transformation, resulting in a much faster process. Unlike the traditional method that engages in theoretical design, the agile approach empowers teams to quickly tackle real-life difficulties. This involves rapidly selecting an experienced partner for the solution and agile processes, instead of engaging in a lengthy request-for-proposal process. A high-level, macro-feature road map is then built based on a list of identified improvements, which is detailed enough to determine the size and form of the agile organization required to deliver the program. The organization is then staffed and trained in agile ways of working, and a strong PMO is established to coordinate functional and nonfunctional workstreams. Adopting an agile approach at this stage results in a significant reduction in time and resources while ensuring that the program is delivered with high efficiency and productivity.

Implementation

In an agile approach, the process of implementing the ERP solution undergoes a radical transformation. The implementation takes place in waves, and it is designed to capture value rapidly. Cross-functional teams of eight to ten members, comprising both business and IT professionals from the company and the system integrator, work together in two- to three-week sprints to complete the design, development, and system testing. End-to-end (E2E) testing and user-acceptance testing (UAT) are conducted regularly instead of just once at the end of development. As a result, code quality is improved, and ongoing test automation is achieved. Although nonfunctional work such as

data migration, training, and deployment is less affected by the agile approach, functional and nonfunctional teams must closely coordinate their activities. The data migration team, for example, must gather data early for frequent functional testing, and nonfunctional testing and the cut-over phase remain the same as in a traditional implementation.

Deployment

In an agile implementation, the deployment phase closely resembles the traditional approach, but with some key differences that help to eliminate bottlenecks and increase efficiency. Agile practices emphasize more frequent deployments and a rapid "deployment of all development" mindset can reduce early deployment risk. Analytics can also be used to optimize the process and determine the appropriate number of key users to be trained. Local templates can be designed early to involve local users, and a shorter hyper-care phase can be planned due to the ongoing focus on quality. Because releases occur more frequently, all deployment steps can be industrialized. It's worth noting that, in an agile implementation, the early stages are accelerated while most of the time and effort are dedicated to delivering functionalities in later stages.

Agile ERP Implementation: Case Studies The Key to Unlocking Productivity and Business Agility

Agile ERP methodology is the future of ERP transformation, and these companies have proven it. By adopting an iterative development approach, Toyota, Dell, Kimberly-Clark, and PepsiCo have successfully streamlined their processes and achieved significant benefits, from improved productivity to faster time-to-value. With Agile ERP, companies can unlock the key to business agility and remain competitive in the digital era.

⁵A few notable case studies highlight why Agile ERP implementation is the key to improving business agility and productivity.

Toyota Motor Corporation implemented an Agile ERP methodology to improve the efficiency of their production processes. They used an iterative development approach to their ERP implementation, which allowed them to continually refine and improve their system. As a result, they reported a 10% improvement in productivity and a 30% reduction in lead times.

Dell implemented an Agile ERP methodology to streamline their supply chain management processes. They used an iterative development approach to their ERP implementation, which enabled them to identify and address issues in real time. As a result, they reported a 30% reduction in inventory levels and a 25% improvement in order processing times.

Kimberly-Clark implemented an Agile ERP methodology to improve its sales and operations planning processes. They used an iterative development approach to their ERP implementation, which enabled them to improve their forecasting accuracy and reduce lead times. As a result, they reported a 20% reduction in inventory levels and a 10% improvement in forecast accuracy.

PepsiCo implemented an Agile ERP methodology to improve its procurement processes. They used an iterative development approach to their ERP implementation, which enabled them to streamline their procurement process and reduce procurement cycle times. As a result, they reported a 25% reduction in procurement cycle times and a 30% improvement in supplier performance.

These companies demonstrate the potential benefits of implementing Agile ERP methodology. By using an iterative development approach to their ERP implementation, they were able to achieve greater flexibility, faster time-to-value, and improved business agility. These benefits resulted in improved productivity, reduced lead times, improved forecasting accuracy, and reduced cycle times, among other benefits.

CONCLUSION

⁶Agile ERP is an innovative approach to implementing and managing enterprise resource planning (ERP) systems. It combines the principles of Agile software development with the traditional ERP implementation process to create a more flexible, efficient, and collaborative approach to implementing and managing ERP systems.

Agile ERP can be applied to a range of industries and organizations, including manufacturing, retail, healthcare, finance, and more. The application of Agile ERP can vary depending on the specific needs and requirements of the organization.

ERP systems, while often seen as an undesirable inclusion, are essential for companies in this digital age. The conventional, complex method of ERP transformation must be reevaluated

and modified to incorporate agile methodologies wherever feasible.

Businesses, enterprises, companies and system integrators should start accepting the idea that ERP transformation is possible using agile and instead streamline the process for ERP transformation using agile methodologies. Moreover, ERP solutions should be made more modular to facilitate phased deployment, which results in lower expenses and more rapid value realization.

Although ERP transformation is challenging, using an agile approach can significantly tackle the obstacles for better outcomes.

Agile ERP methodology is quickly becoming the preferred approach for businesses or companies that want to drive digital transformation and remain competitive in today's rapidly changing business landscape. The traditional, linear approach to ERP implementation is often costly, and time-consuming, and results in systems that can quickly become outdated. With Agile ERP methodology, companies can adopt an iterative, flexible approach that allows them to continually refine and improve their systems to meet evolving business needs.

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