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Digital Transformation Cloud

EBOOK

Why ERP Implementation Is Core to Successful Digital Transformation

You've likely heard of "digital transformation" by now, and the phrase continues to be a hot-button topic across manufacturing, consumer packaged goods (CPG), and chemical industries worldwide. Despite the proliferation of the term, IT leaders still struggle with the fundamental question: what is digital transformation? One of the keys to understanding this phrase at a more granular level is to grasp how enterprise resource planning (ERP) software that integrates seamlessly with different systems and applications is required to achieve a successful digital transformation.

Throughout this ebook, you will gain knowledge about the definition of digital transformation, the evolution of ERP software, and how an ERP implementation can support your organization's digital transformation journey.

CHAPTER I

What Is Digital Transformation?

Digital transformation is the driving force behind a massive global market for different technologies and services that will help promote new digital practices. By 2022, industry analyst IDC expects spending on such services and tech that support digital transformation initiatives will approach $2 trillion, thanks to increasing investments from the retail, transportation, and discrete and process manufacturing sectors.

At its core, digital transformation can be defined by three components:

- **Digitization:** Making information accessible in digital format
- **Digitalization:** Using digital information to optimize performance
- **Transformation:** Envisioning new ways of doing business on your digital foundation

Only when your digital foundation is in place and optimized can you begin to achieve true digital transformation that changes the way you do business.

Now that the steps for digital transformation have been outlined, it's time to take a closer look at how ERP systems can be the backbone behind your digital transformation strategy. ERP software falls into two categories:

- **Best-of-Breed:** Organizations purchase software from multiple vendors to gain the functionality they require for their unique business needs, including purchasing a streamlined, world-class, and narrow ERP. Companies will have to ensure that different applications will integrate effectively if choosing this method.
- **Monolithic:** Businesses use a single vendor for their ERP application and support needs, and they're tied to that service provider's particular ecosystem.

In today's best-of-breed vs monolithic era, you should be asking yourself some key questions when evaluating your organization's ERP system:

- What are the core systems of record and what technology is used for that function?
- Does each application you use, including the ERP, have a distinct and discrete purpose?
- Does your team frequently have to update data models in order to compensate for custom code and system overlap stemming from your home-grown systems?
- Have your users created shadow or rogue software applications to bypass the complexities of your outdated ERP system?

This last question is particularly important, given that shadow IT is especially pervasive throughout larger businesses. According to research from the Everest Group, **50% or more** of all IT spend includes some form of shadow IT (unsanctioned spend on systems and software outside of IT's purview), a figure even higher than Gartner's estimates of **between 30-40%**.

If not addressed, shadow IT can lead to data loss, performance issues (incompatible systems), and increased security vulnerabilities that can be exploited by hackers.

Whether you work for a smaller company looking to redo its entire data model, or for a large business hoping to get rid of shadow software and system redundancy across the enterprise, you need to analyze your existing ERP systems to ensure they're equipped to support your digital transformation efforts.

CHAPTER II

The State of ERPs

Gartner may have officially coined the term “ERP,” or enterprise resource planning, in 1990, but the utilization of material requirements planning (MRP) systems had already been in place for decades prior to the common ERP nomenclature. The research firm made waves again in 2014 when it introduced the “postmodern ERP” definition, which is all about maximizing heavy-duty software systems and piecemealing applications together through a unified ERP system to fit an individual company’s needs. Postmodern ERP is also categorized by two strategies:

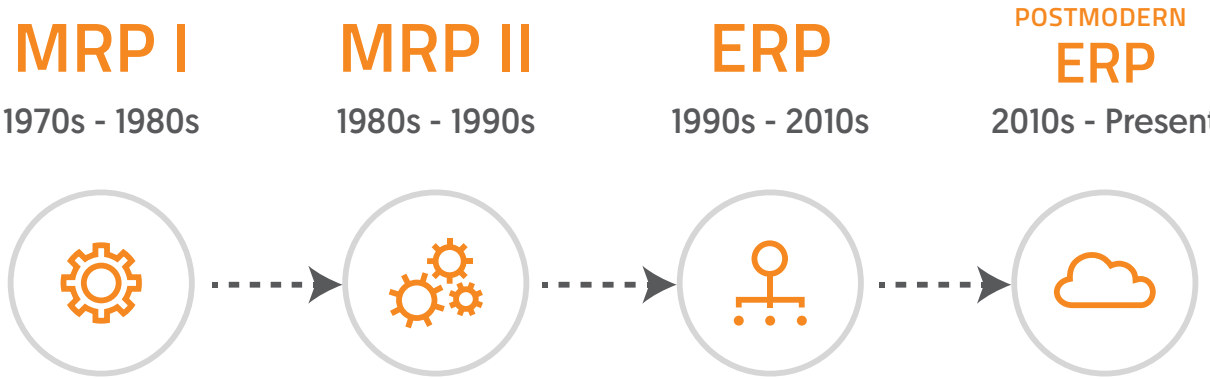
Administrative ERP

Includes financial, human capital management, and indirect procurement functions for service-oriented industries such as higher education, public sectors, and professional services.

Operational ERP

Includes supply chain, order management, and manufacturing functions for asset-focused industries such as mining and utility businesses.

Enterprises in the CPG, chemicals, and life sciences spaces typically have ERP software in place that they implemented when their businesses were first scaling, which has resulted in homegrown systems that now contain tangled and disconnected systems.



This is a dangerous situation for any business to be in, as homegrown systems lack quality standards and standardization around coding, delivery, and development—factors that not only pose a risk to IT systems, but to the company as a whole.

If businesses incorporate too many add-ons, customizations, and patches, they can be left with a "Frankenstein" system that results in an inefficient and inaccessible ERP that may cause companies to abandon these platforms altogether in favor of more intuitive spreadsheet functionalities. This is particularly true for companies that have custom-coded non-core applications directly into their ERP systems, which is bound to create inefficiencies to the core ERP.

In the world of ERP, old and outdated systems can wreak havoc on an enterprise. Businesses that invested in ERP solutions around a decade ago are now left with outdated functions and user interfaces that haven't been updated, leaving users with unintuitive experiences that may require companies to implement new UIs on top of their existing deployments.

When ERP systems are homegrown and there are a number of built-in applications incorporated into the system, there's also the possibility that only a few employees are truly knowledge experts about how the ERP software is built, maintained, and utilized. Should one of these people leave a company, there could be significant hurdles to overcome regarding keeping the technology up to date and end-user groups educated about the ERP system in place.

So how can your business avoid the potential challenges associated with today's ERP software? A frontend evergreen platform that's constantly updated is one way to achieve a solid foundation to ensure your company isn't left high and dry with an inefficient and outdated ERP system that relies on off-the-shelf functionality.

CHAPTER III

The Importance of Proper ERP System Implementation

To keep pace with your competitors, your business needs to have systems in place that support your operational processes. If current platforms don't enable your company to glean insights from data, you're likely losing ground to your chief rivals. Outdated ERP systems can be holding your organization back from enhancing core business processes, and if you're relying on an ERP suite that's five years old or older, chances are that the system lacks key functionality in at least some areas.

If your company is in such a position, you have two options available to address any complexities with the current ERP setup: replacing the existing ERP and building your own with a partner provider, or cleaning up your existing system and supplementing the gaps. Your business should understand that there's no right or wrong answer, and any decision will depend on your organization's unique requirements.

1.Replace the ERP entirely

By adopting a new ERP system, your organization can have a clean slate and enter the new phase of your digital transformation journey by working in a best-in-class format. With a custom-built, block-driven ERP solution, your company will also have access to flexible platforms that can be used to create the optimal model for your organization. This may involve mirroring your previous system's key components and keeping data models and processes in place to avoid disrupting your employees' workflows, or it may mean using the opportunity to revamp your operational infrastructure. If you're currently working with an "optimized data model" as it's known in the ERP space, your business can keep your data model and processes and only improve and remove functions where necessary.

Although there are clear benefits to replacing an ERP system entirely, there are still some drawbacks that your organization should consider, especially around costs. When replacing your ERP altogether, your business will incur costs and additional expenses to implement new software, replace tools, and reduce best-of-breed systems into a unified platform. Your company's key stakeholders may also have to devote significant time into the new ERP's implementation, so you should be aware of the requirements needed to transition your team to the new platform.

Replacing the ERP: Pros & Cons

Optimized data model with no constraints	✓
Ability to retain familiar workflows	✓
Limited need for stakeholder input	
Minimal costs associated with new system	
Cost savings from replacing a hodgepodge of old systems	✓
Quick turnaround time	
Consistently updated by external talent	✓

2. Extricate non-core functions

Your company also has an opportunity to detach unnecessary functions from your ERP system and build them in separate applications. With this approach, your company can remain with its existing ERP platform, but the core ERP system will be left untouched and still may not be optimized to fit your specific business needs. Some functions that can be inappropriately stuck in an ERP include:

- Facilities and asset maintenance
- Supplier collaboration
- Customer service management
- Product information management
- Warehouse management
- Work-in-progress (WIP) inventory management

This is an easier process for your organization to pursue, involving less stakeholder input and a quicker turnaround, but it doesn't allow for the model overhaul and ERP customization that creating a new system does. This option is preferred if you're currently working with an ERP that closely matches your organization's needs, or if for massive enterprises for whom overhauling the entire ERP would simply be too disruptive.

Extricating Non-Core Functions: Pros & Cons

Optimized data model with no constraints	
Ability to retain familiar workflows	✓
Limited need for stakeholder input	✓
Minimal costs associated with new system	✓
Cost savings from replacing a hodgepodge of old systems	
Quick turnaround time	✓
Consistently updated by external talent	only new components

CHAPTER IV

Data Integration for the Enterprise

Regardless of how you fix your current ERP system, your organization has to enhance and clean your data models. To truly take advantage of machine learning (ML) and artificial intelligence (AI), which have become synonymous with digital transformation strategies and have enabled businesses to leverage data in new and innovative ways, your company's data will have to be in the same place.

The core data responsible for running your business is in an ERP solution, while ancillary systems need to be interoperable. Once all the data is put into the same place, it can be distilled and transformed through cloud connectivity, ultimately unlocking big data insights.

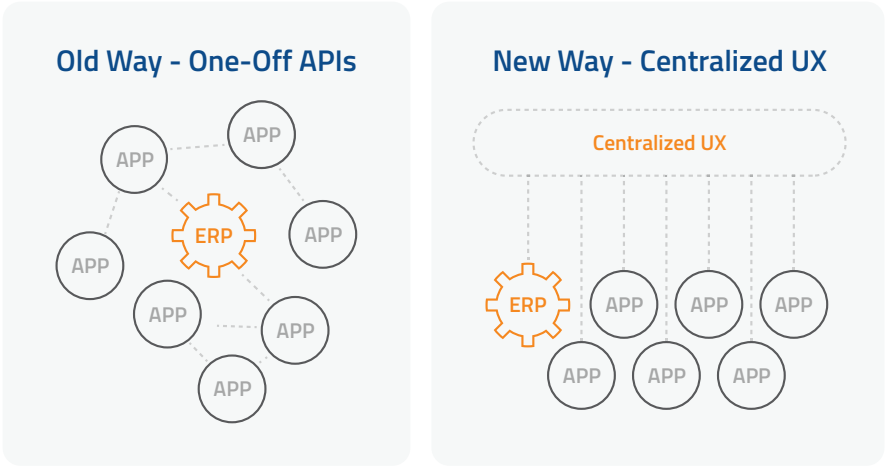
As we've discussed in earlier sections, applications are often baked into an ERP system or are linked to one another on a one-off basis through APIs.T

These situations can cause various issues such as:

- Linkages breaking
- Inconsistent data
- No one "center of truth"
- Lack of data accessibility and transparency

Without a centralized UX that unifies all data across disparate systems, your organization will be unable to effectively elevate your business strategy to encompass the likes of big data and cloud connectivity because your data will be living in separate locations. A universal UX will enable all of your applications to perform to the best of their ability, all while still unifying data from these different apps. Such capabilities can be achieved using platforms that layer on top of existing ERP systems and other applications without changing those apps or creating one-off APIs, creating a universal UX.

Through a universal UX that centralizes data-sharing features, your organization will be able to simplify and standardize system integration to promote interoperability and reduce the risk of system downtime and business interruption. The core feature of a central UX is that it layers on top of your systems, rather than creating tenuous connections between each disparate platform.



In many cases, such a functionality ties directly into achieving big data insights. For CPG companies or other manufacturers, for example, this capability is instrumental to take full advantage of industry concepts such as the digital twin or the Industrial Internet of Things (IIoT).

A universal UX can also be utilized in other areas of your business. For example, if you're a company that develops products in-house, leveraging this type of UX can be a key factor for supporting DevOps concepts and agile development practices, both of which have gained traction as businesses seek greater flexibility when taking on new software deployments. Having this UX allows teams to have visibility into the work that other departments are completing to update their own processes accordingly, and pairing it with low-code environments can enable your team to develop applications faster than traditional programming and unify application lifecycle management.

By utilizing a universal UX, your organization can achieve productivity across the entire company, deliver the same experience for all applications, and simplify workflows ranging from application development to data analytics.

CHAPTER V

Completing Your ERP Implementation and UX Evaluation

Ultimately, it's critical that your business complete a UX evaluation, paying particular attention to your ERP, in order to determine the areas of opportunity before moving forward with higher-level digital transformation strategies.

Some steps your team may be able to do on its own include inventorying systems and assessing data models and development landscapes, but a UX evaluation needs to go far deeper and analyze the core business processes in place before making critical transformative decisions.

Given the requirements and scope needed to conduct a full evaluation, a partner that is well-versed in the world of digital transformations and the ERP implementation process can help guide your company through various processes to ensure a successful transformation strategy is followed. Such partners can help your organization:

Audit your business systems:

- Determine used, abused, avoided, discarded, inactive, sanctioned, and rogue systems, applications, and processes
- Identify areas of risk (security, obsolescence, and Frankenstein systems)
- Identify areas of redundancy (both process and data)
- Conduct a cost analysis (licenses, exposure, and productivity)

Assess your enterprise data model:

- What's your core business data?
- Where's your core business data coming from?

Evaluate your development landscape:

- Current tools and methodologies
- Deployment platform (cloud, on-premises, or hybrid)
- Integration strategy

Envision your new landscape:

- Simplify and standardize
- Define core processes mapping functions to systems of record, differentiation, and innovation for your business
- Apply optimized data model
- Standardize development and integration platforms
- Optimize deployment platform

If your organization believes a successful digital transformation will be a daunting task, don't approach this initiative alone. A partner can help evaluate your data and processes to ensure your business implements only the products you actually need to get to your target future state.

CHAPTER VI

Conclusion

Given the trillions of dollars invested in technologies and services to drive digital transformation, your organization has likely already explored this industry-defining trend in some capacity. When implemented and maintained effectively, an ERP system can be the building block behind your organization's successful digital transformation strategy.

Whether your business is just beginning to scale or have been operating for decades, BoomDTC can help your company fully develop practical roadmaps for radical digital transformation, implement new ERPs while still maintaining systems' best practices, evaluate your UX to extricate from legacy ERPs to create independent apps, and utilize iterative prototyping to accelerate solution design.

With the BoomDev platform, a low-code data modeler that extricates processes from static ERPs to create scalable and flexible solutions, your organization can:

- Remove redundant systems and shadow software
- Redo your entire data model
- Receive constant updates once frontend deployment is completed
- Mirror key components of an ERP system for a seamless employee transition

BoomUX, BoomDTC's front-end toolkit for progressive web applications (PWAs), enables full interoperability across your systems. Ultimately, platforms like this can support your company's ERP needs to facilitate a successful digital transformation strategy by:

- Putting new UIs on top of SAP platforms to give these systems a user-experience makeover
- Generating IIoT connections across expanding business integration layers by enabling cloud connectivity
- Communicating directly with the data model of BoomDev
- Layering on top of existing ERP systems and other applications without requiring one-off APIs

There are so many facets to a digital transformation strategy that your business may not know where to start your journey on your own. If you want to start the process off on the right foot, request an **ERP Evaluation** with BoomDTC today.