WHITE PAPER

GAMIFYING ERP IMPLEMENTATIONS TO DRIVE USER ENGAGEMENT

Abstract

Enterprises are increasingly adopting gamification initiatives to drive successful business transformation programs such as ERP implementations. Such implementations are often lengthy, resource-intensive and met with significant employee resistance. This paper explains how gamification can be used in an ERP implementation program to engage users, improve adoption and achieve desired business outcomes.

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Introduction

Today, enterprises use transformation programs to align technologies with the business vision and achieve goals such as agility and digitization. User or stakeholder engagement, however, is often not considered a top priority when formulating the business case. Thus, even carefully structured implementation plans may fail eventually if the stakeholders and final users are resistant to change.

Hence, enterprises are looking for innovative strategies to motivate users to engage with new systems and pilot projects. Gamification is one way to inject fun and healthy competition among teams and increase engagement levels. It is the process of applying game design elements to an activity, application or initiative. Besides driving collaboration between cross-functional and cross-cultural teams, gamification provides valuable insights into the performance, reliability and potential for continuous improvement in any transformation initiative.

Challenges in ERP implementations

Enterprise resource planning (ERP) is one of the key enablers for business transformation, particularly when leveraged with the right technologies. ERP-driven application streamlines and integrates information flow across different business processes, functions and partner eco-systems. Further, by replacing stand-alone applications, ERP solutions help organizations improve quality and data accuracy while enabling agility and efficiency.

Unfortunately, ERP implementations typically take several years as they require high effort and collaboration among various groups within the organization. Every team must approve the final system design as well as application and process changes even before the implementation begins. Further, stakeholders must alter their daily work schedules according to various implementation stages across the entire ERP lifecycle, resulting in significant business disruption and employee dissatisfaction.

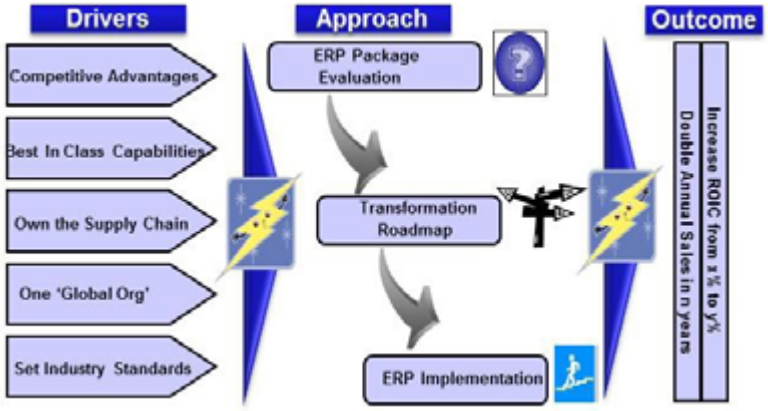

Fig 1: Drivers for the implementation. Source: Infosys Research

Using gamification in ERP implementations

Faced with these challenges, many organizations are adopting gamification as a way to drive ERP-led business transformation to drive some of the critical organizational decisions, with a goal to keep the users engaged and encourage them in achieving the desired outcomes of the transformation. For gamification to succeed at engaging users while achieving business outcomes, it requires a structured plan with buy-in from senior management. Towards successfully achieving the transformation through gamification the following three step framework will be instrumental:

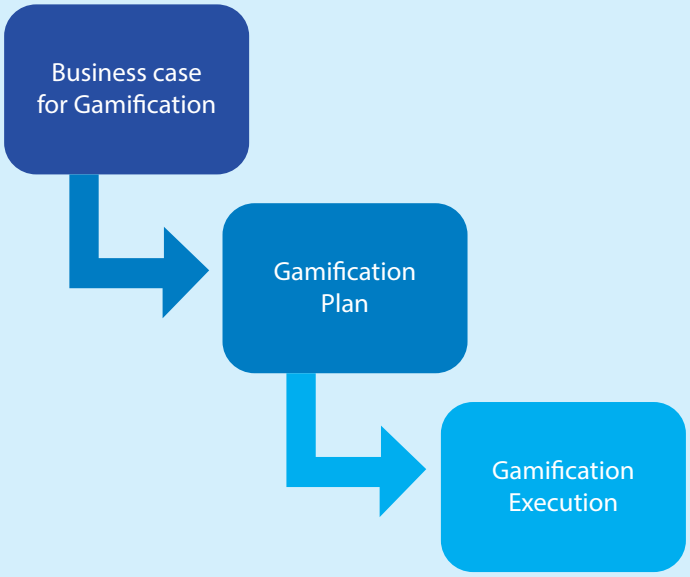

Fig 2: Stages for implementing gamification in business transformation.
Source: Infosys Research

Step 1: Develop the business case

Before embarking on a gamification initiative, companies must assess the cost and benefits of the gamification initiative and evaluate the feasibility of gamification as a tool for ERP implementation. They should conduct financial and cost-benefit analyses over a specific time period. Financial analysis should compute net cash flow, cumulative cash flow, discounted cash flow, and expected return on investment (RoI). Cost-benefit analysis should include:

- One-time costs such as gamification hardware, software, implementation, and assets
- Recurring business costs that arise from non-availability of resources
- Recurring operational costs such as gamification logistics and prizes
- Tangible benefits such as lower defects, higher test cases executed, better performance, etc., achieved through gamification
- Intangible benefits such as increased user adoption, motivation and productivity achieved through gamification

	Parameter	Year 1	Year 2	Year 3	Year 4	Year 5
Costs	**One Time (Amounts in USD)**					
	Fixed Asset investments like servers, network setup, printers, laptop etc.					
	Software investments -- any additional software development for gamification					
	Implementation cost e.g. dedicated people for support , research costs etc.					
	Recurring (Amounts in USD)					
	Notional losss due to un-availability of business SMEs for gamification					
	Hardware maintenance costs					
	Incremental software development and maintenance costs					
	Participant Gifts e.g. monetary rewards, gift vouchers, appreciation tokens					
	Logistics costs e.g. lodging, boarding, travel costs related to gamification					
	Operational costs e.g. rooms, telephone calls, electricity etc.					
Benefits	**Tangible (Amounts in USD)**					
	Reduction in process development costs					
	Reduction in design, development, testing and configuration related costs					
	Reduction in production support costs					
	Improvement in system performance					
	Reduction in change management related costs like training, user awareness etc.					
	Intangible (Amounts in USD)					
	Improvement in resource productivity					
	Greater number of knowledgable wokforce leading to efficient business					
	Easy transition to new system for users					
	Reduction in change management related activities with less resistance to change					
Net Cashflow						
Cumulative Cashflow						
Discounted Cashflow (DCF)						

Fig. 3: Sample business case cost-benefit analysis over a period of 5 years.
Source: Infosys research

Step 2: Create a gamification plan for ERP implementation

Just like all business transformation programs, ERP implementations involve many sequential stages. Companies should collaborate with the end-users and subject matter experts (SMEs) to integrate gamification with the ERP implementation to improve employee engagement and experience. To do this, they must first clearly articulate the type and duration of gamification activities, game coordinators, types of players, expected player response, benefits, and success metrics. Embedding this information in the implementation plan increases the success ratio of gamification programs as participants understand the activities, execution process and expectations across all stages.

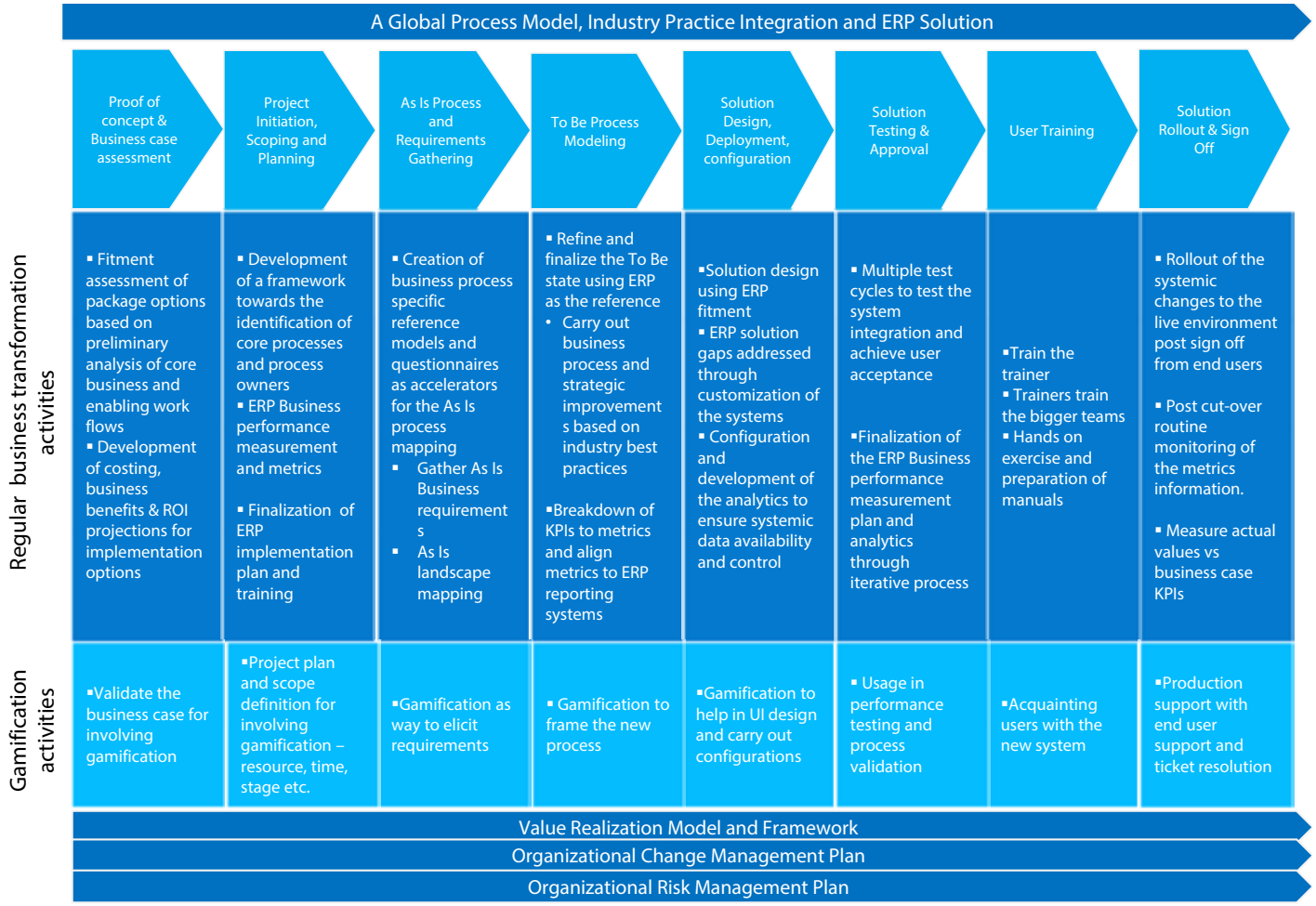

Fig 4: Modified implementation plan with gamification. Source: Infosys research

Step 3: Execute gamification for business transformation

Finally, companies should create and execute the implementation plan by identifying what processes can be transformed through gamification. It is also important to determine gamification activities, logistics, players, rewards, and success metrics across all stages as shown in Figure 4.

Stage 1: Proof of concept and business case assessment – At this stage, those who sponsor the implementation must collaborate to develop the business case. It is important to involve key business managers. Pilot gamification activities can be conducted to gauge user response, identify champions and outline immediate benefits.

Stage 2: Project initiation, scoping and planning – Here, the program management office (PMO) lays out the scope of the gamification program including high-level activities, resources, timelines, and logistics. It identifies what business functions should be included in gamification such as procurement, sales, logistics, finance, marketing, etc. In cases of cross-country ERP implementations, multi-cultural and multi-lingual teams along with multi department teams should be involved as this will increase knowledge of cross-functional links and improve system design. After determining the scope, the PMO notes what games should be used, collaborates with respective business managers to allocate resources, and plans logistics of implementation.

Stage 3: As-is process and requirements gathering – In this stage, the process landscape must be defined based on industry-specific reference models. Typically, ERP implementations face challenges owing to lack of clarity on handover points between business teams. Here, gamification can help determine what new functionalities are required. For instance, heterogeneous teams are created with individuals from different departments such as procurement, sales, marketing, finance, etc. Each team fills out a questionnaire to elicit process information and notes the top 20 requirements and pain points for each process including the relevant integration points for each stage. Once the implementation team validates these responses, they gain a final list of team-specific integration requirements and process functionalities to be added. From a gamification perspective, teams can be scored based on their responses and winners rewarded by using leaderboards to track performance.

Stage 4: To-be process modeling – In this stage, companies reframe as-is processes into to-be models. Gamification can help companies leverage inputs from the previous stage to improve process efficiency, standardize processes across countries, or define new processes. For instance, open-ended games in cross-functional and cross-country teams can drive innovation by creating entirely new to-be process flows that cater to the listed business requirements and functionalities while removing pain points and non-value add processes, thereby harmonizing integration. For example, games can be used to encourage teams to suggest how to improve billing by increasing invoicing efficiency or adhering to SLAs. In the quote-to-cash process, suggestions can vary from motivating users to increase collection calls to gathering holistic customer data or analyzing dropped orders. Here too, team performance can be scored on the number of suggestions and quality of responses where winners are rewarded, thereby driving innovation and also ensuring no critical business requirement is missed

Stage 5: Solution design, development and configuration – This stage requires significant effort from IT teams to design, develop and configure the ERP solution. Gamification can be used to accelerate configuration, support data conversion and design new UIs. For instance, teams can be deployed to configure master entities like item pricelists, design custom processes that need a new UI or create effective solutions that leverage out-of-the-box ERP package features. This will help the ERP implementation team access design prototypes that have high data quality and are in tune with business requirements. Further, companies can track the success of component designs and configurations to understand system efficacy.

Stage 6: Solution testing and approval – End-user scenario and business process testing is a prime area for gamification. In solution testing, games can be designed to award users who test the highest number of scenarios or uncover most defects in solutions. In performance testing, games be used to motivate users to get acquainted with the system by rewarding highest number of sales booked, quotes generated, purchase orders processed, etc. Besides increasing user confidence, it helps assess system performance. Further, as more teams get involved in volume testing, companies can assess the impact of bulk system usage. Cross-functional teams too can be asked to execute complete cycles with business-like simulations to determine the time taken for benchmarking.

Stage 7: End-user training and Acceptance Testing – In this phase, the ERP implementation team trains users on how to use the new system. This is done through train-the-trainer programs where SMEs train managers who then train the end-users. This stage also involves developing user manuals and FAQ documents. User acceptance testing is also conducted to ensure users test the solution before go-live. From a gamification perspective, team managers can design interesting games that combine training as well as end to end testing processes instead of lengthy workshops with theory, practical and testing sessions. Training should be designed to drive team enthusiasm by using lucrative incentives

such as monetary rewards for highest value of purchase orders booked, maximum number of scenarios executed in one day or highest number of genuine bugs identified. Non-monetary rewards can also be leveraged such as public appreciation for teams or users who develop solutions to defects or identify process workarounds to yet-to-be-released functionality.
In multi-country ERP deployments, managing changes in local languages is a cumbersome process. This process can be made exciting using gamification techniques where users test and review reports, alerts, messages, and UIs impacted by local language changes and provide feedback on issues and solutions. This not only accelerates the validation of these changes but improves understanding of cross-country processes. Here, the main benefit is getting a high number of users acquainted with various production scenarios. This not only improves user productivity, product quality and testing efficiency but drives higher engagement at the prospect of winning rewards.

Stage 8: Solution rollout and support – During the cutover phase, champions can drive data validation, smoke testing and floor support to gamify the rollout of the new ERP system. In the support stage, leaderboards can be used to accelerate issue resolution esp. tickets on process clarifications or encourage smart workarounds by SMEs. Winners can be chosen based on highest tickets resolved or shortest resolution time. Gamification initiatives can also empower employees to resolve post go-live system defects and become self-sufficient for queries, thereby reducing the burden on IT teams. Key metrics in this phase are the number of tickets answered successfully by these teams and the closure time for such tickets.

Benefits of gamification

A Gallup poll indicated that over 70% of employees are either not engaged or are actively disengaged. More alarming is the fact that these levels increase during ERP implementations, which can have a negative impact on any transformation initiative. Gamification delivers many benefits to enterprises embarking on ERP business transformation such as:

- Higher user adoption – Gamification can help companies drive employee enthusiasm, boost user engagement and reduce stress during complex ERP deployments. User adoption increases as implementation becomes fun, which helps companies realize business benefits faster.
- Effective change management – Effective change management strategies are those that incorporate methods to overcome employee resistance to change through open communication about the nature of changes, schedules, enterprise-wide effect, etc. The inclusion of gamification within the change management strategy increases the efficacy of such programs and enhances user experience and engagement. Here, change champions are important as they drive user adoption by designing relevant rewards and games that motivate users to comply with the new changes and adopt new systems.
- Greater coordination – Games involve teamwork and cooperation, encouraging employees to share problems, experiences and solutions. It also fosters collaboration in companies with cross-cultural and multi-lingual teams, helping them quickly educate employees about regional business processes, in global multi country rollouts.
- Reward-based education – Besides simplifying the process of understanding the new ERP system features, gamification promotes camaraderie among teams, particularly during multi-country rollouts. Further, organizations can incentivize adoption by providing monetary or non-monetary rewards for process champions, leaderboard winners, top performers in user support or training, etc.

However, when designing gamification initiatives, care must be taken to ensure that business strategy and judgment should not get reliant on game outcome alone and also thwart unhealthy competition between players. The end goal of gamification is to align employees with the business vision through fun and learning. Thus, frustration at losing should not be allowed to impact professional performance. Ultimately, gamification is a business enabler and, with the right approach, acts as a true facilitator of successful business transformation.

Conclusion

Typically, business transformation programs should be agile and nimble with minimal business disruption. However, ERP implementations are often lengthy and difficult to implement owing to resistance to change and poor user adoption. Gamification provides a useful tool to engage users and foster innovation. The right implementation plan involves developing the business case and creating and executing the gamification plan. This involves a series of steps ranging from requirements gathering and to-be process modelling to end-user training and post-implementation support. With the right approach, gamification can be used across the lifecycle of ERP implementations to ensure timely deployment, effective change management, better coordination among business units, and high user adoption.

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