

## The Role of Gamification in Employee Motivation

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### ABSTRACT

Motivating employees is one of the most vital elements of organizational success including productivity, engagement, innovativeness, and retention. Gamification, or the use of game design elements and mechanics in non-game contexts, has emerged as a new way to motivate employees in recent years. This paper reviews the state of gamification as a motivational tool as it provides a comprehensive overview of the theoretical bases, use in workplaces, case studies, limitations, and future directions. Uses of motivational theories such as Self-Determination Theory, Expectancy Theory and Flow Theory, were used as analytics to examine gamification elements for motivating employees, including points, badges, leaderboards and participatory simulation. A review of available data and various corporate examples illustrates how gamification motivates employees, which has an overall positive impact on engagement, performance and satisfaction. Potential limitations pertaining to reliance on extrinsically based motivation, practitioner ethical concerns, and cultural considerations, are also discussed. The evidence demonstrates that when gamification designs are specifically directed towards the interests of multiple stakeholders and consistent with organizational goals, then gamification has promise in motivating employees. Ultimately the success of gamification in the long term resides on the degree to which, the gamification design fosters positive incentives for employee engagement to enhance intrinsic motivators, perceived transparency, and personalization. Future avenues of growth suggest AI-driven adaptive gamification and immersive technologies (e.g., virtual reality, augmented reality). In sum, gamification is an effective but dual-edged strategy for organizations that wish to engage, motivate, and develop high performing workforces.

**Keywords:** Gamification, Employee Motivation, Workplace Engagement, Intrinsic Motivation, Human Resource Management, Organizational Behavior, Self-Determination Theory, Gamified Work Systems

### INTRODUCTION

#### Background

In a rapidly changing and increasingly competitive business world, organizations have intensified demands on productivity, innovation, and employee engagement. At the heart of these challenges is employee motivation; motivation is a vital component to organizational effectiveness. Employees who are motivated exhibit higher performance, creativity, and loyalty, whereas unmotivated employees can see lower productivity, higher turnover, and organizational stagnation (Ryan & Deci, 2000). Therefore, motivation is an area of interest for many scholars and practitioners of management.

One newly defined area that is gaining traction is gamification, or the use of game-like mechanics, dynamics, and design principles in non-game contexts, such as work, education, and health. Gamification first gained popularity, as an idea, in the early 2010's and has gained traction in organizational behavior and human resources for increasing engagement and performance (Deterding, Dixon, Khaled, & Nacke, 2011). To gamify tasks or experiences, an organization can utilize game elements such as points, badges, and leaderboards, challenges, and rewards, to help make mundane tasks more interesting and engaging, which increases motivation to complete the task.

### Significance of Employee Motivation

The significance of motivation in work contexts has been a primary subject in organizational psychology for generations. The foundational work of theorists, including Maslow's hierarchy of needs (1943), Herzberg's two-factor theory (1959), and McClelland's needs theory (1961), have heavily influenced our understanding. Contemporary authors also recognize at least two forms of motivation intrinsic motivation which is predicated on an inner sense of satisfaction or purpose and extrinsic motivation predicated on outer factors such as pay incentives, recognition, or promotion opportunities (Deci & Ryan, 1985). Ultimately, gamification has the potential to influence both forms of motivation (intrinsic and extrinsic motivation), mainly through creating immediate feedback, goal-setting, and mechanisms of social comparisons that reinforce motivation.

In a world that is increasingly shifting to a knowledge economy, which prioritizes creativity, collaboration, and innovation, many organizations are looking for motivational strategies that go beyond traditional compensation and bonuses. Gamification is ideally suited to create immersive, interactive, and rewarding contexts that help align employees and the organization in pursuit of both personal and company objectives.

### What is Workplace Gamification

Gamification is frequently taken to simply mean to make work into a game. It is actually best defined as “the use of game design elements in non-game contexts” (Deterding et al., 2011, p. 10). Gamification at work involves introducing mechanics like:

- **Points:** Numeric indicators of achievement or progress.
- **Badges:** Visual evidentiary icons of accomplishment or skill.
- **Leaderboards:** Rankings that promote competition and comparison.
- **Challenges and Quests:** Designed objectives that encourage problem-solving through task based competence.
- **Feedback Systems:** Up to the minute information regarding performance and progress.

These mechanics can promote and activate some of the most fundamental psychological needs of all humans including competence, autonomy, and relatedness, which are essential components of motivational theories such as Self-Determination Theory (Ryan & Deci, 2000).

### Purpose and Aims of the Study

This research article aims to explore the concept of gamification and its contribution to employee motivation for the following aims:

1. To map the **history** of gamification and how it has been used in organizations.
2. To consider the **theoretical** basis connecting gamification to motivation theory.

3. To examine the practice of gamification in work and the practices used in organizations.
4. To examine the impact of gamification on motivation, engagement, and performance.
5. To examine case studies and the empirical evidence for its effectiveness.
6. To identify barriers, limits, and ethics of gamifying work.
7. To contemplate the future regarding personalization through AI and immersive technologies.

### **Relevance of the Research**

This research is relevant as it adds to the understanding of gamification as more than a just a fad in management. While critics of gamification sound the alarm about a risk of it simplifying or overriding players' motivation (Bogost, 2011) it is gamification, if applied properly within the nudge theory, that can educate and improve engagement if it adopts a level of motivation, or redirects behaviors to organizational goals. This article provides a blend of theoretical, empirical, and practical ideas that could be beneficial for scholars, Human Resource practitioners, and organizational leaders in the purchasing or application of gamification concepts for an enduring type of motivation.

## **HISTORICAL DEVELOPMENT OF GAMIFICATION**

### **Early Theories of Play and Motivation**

Gamification has a history of being derived from a general human interest in play and games as a means of learning, socializing, and motivating. Johan Huizinga (1938) states in his book *Homo Ludens*, that play is a key factor in human culture and has preceded and shaped institutions including law, art, and education. Roger Caillois (1961) defined games by aspects such as competition (agon), chance (alea), mimicry (mimicry) and vertigo (ilinx), and aligned his conception with the psychological and cultural components that are associated with completed play. These foundations propelled an understanding of all the ways that game-like traits can be strategically infused into non-game contexts for the purpose of influencing human behavior.

### **Early Applications in Business and Training (1960s–1980s)**

The use of game mechanics in the organizational setting predates the modern term "gamification." During the 1960s and 1970s, businesses began using simulations and role-playing games as training for professional development and for skill development. For example, military and corporate organizations began using serious games: interactive simulation models for decision-making and leadership training (Abt, 1970). In the 1980s, corporations utilized sales contests and performance-related contest competitions. These competitions employed points, rewards, and public recognition to incentivize performance that relied upon earlier gamified techniques outline above. While gamified structures during this time lacked the level of digital integration of current gamification platforms, they did retain the essence of gamification through structured competition, feedback and reward.

### **Digitalization and Rise of Game-Based Learning (1990s–2000s)**

In the 1990s, personal computers and internet access accelerated the proliferation of game mechanics in contexts that were not related to entertainment. Educational technologies had begun to use game-based learning, which emphasized the use of interactive created designs to engage students, as well as to help students retain knowledge. Similarly, businesses began using more e-learning modules with progress

tracking features, quizzes, and digital badges, in order to increase the effectiveness of an employee training program (Prensky, 2001). During this time, the difference between game-based learning and gamification was poor; organizations quickly began to learn the motivational benefits that had been built into the ability to teach through interactivity in presenting learning disciplines, and the feedback loops built into varying designs of game mechanics.

### **The Term "Gamification" (2010s)**

The use of the term "gamification" became popular in general use around the year 2008 - 2010, and began to gain academic credibility through the works of Sebastian Deterding and his colleagues (Deterding, Dixon, Khaled, & Nacke, 2011). They defined gamification as "the use of game design elements in non-game contexts" (p. 10), distinguishing it from games and simulations. This conceptual clarity represented a watershed moment in organizational psychology and human resources management as gamification was finally explored as a study and field of practice.

Corporate adoption exploded in the 2010s, particularly in the areas of employee engagement, marketing, and customer loyalty programs. Technology firms were constructing gamified platforms, such as Salesforce's Badgeville and SAP's Community Network, that incentivized participation and collaboration with digital rewards, badges and leaderboards. The growth of mobile applications has extended and deepened the reach of gamification because employees can engage with a mobile app and conveniently track their performance, earn digital rewards, and enter into workplace competitions with little friction.

### **Asserting It into Organizational Behavior and HRM**

Foundational to the mid-2010s, gamification has transitioned from a management fad or novelty to an accepted practice of management. Additionally, academic articles and business literature alike have explored the benefits of gamification for enhancing motivation, collaboration, and knowledge-sharing (Hamari, Koivisto, & Sarsa, 2014). Organizations began to embed gamification contingently embedded in other more comprehensive organizational systems such as performance management, recruitment, and training, as in the case of gamified learning modules into Deloitte Leadership Academy for executive education or a Multipoly simulation game in the recruitment process to identify new employee fit and to simultaneously train employees in their new roles at PriceWaterhouseCooper (PwC).

Beyond that, gamification has moved beyond points and badges systems and has begun to launch into more experienced design systems launched around storytelling or personalized challenges. In the past, gamified experiences considered to be simple or frivolous, new developments in Big Data and artificial intelligence have given organizations the opportunity to offer gamified platforms that can customize the gamified experience based on employee preferences, and even align the gamified experience to motivational theories like Self-Determination Theory and Flow Theory.

### **Gamification in the Modern Workplace**

Gamification has entered the terminologies related to organizational innovation. It has traveled from informal play-based learning and is now a formalized, data structured system addressing employee engagement, skill development, and retention. The COVID-19 pandemic sped up and institutionalized the trend as organizations relied incredibly on remote work and then needed more sophisticated digital engagement strategies for remote teams (Werbach & Hunter, 2020).

Today gamifications no longer sits on the cusp of being a 'novel' idea, but an expected strategic option in the integrate toolbox of managers concerned with human resource management, leadership development, and organizational culture. As organizations accelerate digitally with a 'googles workspace' and integration

of things like immersion technologies (Virtual Reality and Augmented Reality), gamification will be at the center of discussions to address motivation of employees at work, and success of the organization.

## **THEORETICAL FOUNDATIONS OF GAMIFICATION AND MOTIVATION**

### **Introduction to Motivation Theories in the Context of Gamification**

Gamification fundamentally is about using psychology to affect employee behavior, performance and engagement. Motivation is considered the driver of human behavior, and it has been studied in detail in the discipline of organizational psychology and management. Moreover, motivation theories can explain the inclination of employees to follow certain pathways, how they work at the goal and the conditions that may lead to optimal operant performance (Ryan & Deci, 2000). By introducing game design elements into the workplace, organizations are effectively motivating employees to pursue more productive and satisfying work habits. This section will review the main conceptual frameworks that underpin workplace gamification.

### **Self-Determination Theory (SDT)**

Self-Determination Theory (SDT), advanced by Deci and Ryan (1985), is one of the most commonly used theories in gamification research. SDT differentiates between intrinsic motivation (the drive to do an activity for its own sake) and extrinsic motivation (the drive to do an activity for an instrumental purpose). SDT holds that all humans have three basic, psychological needs: autonomy, competence, and relatedness.

Gamification fulfills all of these needs in the following ways:

- **Autonomy:** By increasing employees' ability to choose tasks or challenge in a gamified environment, employees can develop a sense of control. For example, a gamified dashboard allows employees to choose their own learning path.
- **Competence:** By providing feedback and the sensation of mastery through progress bars, levels, and badges. Employees begin to feel the satisfaction of tracking progress when they see their skill set is improving and they have reached progress bars or milestones.
- **Relatedness:** Through use of leader boards and team-based challenges, a sense of relatedness and social validation can be gained by engaging in gamification.

Research has suggested that gamified systems were designed with SDT concepts in mind produce sustained engagement compared to gamified systems relying solely on extrinsic motivation (Seaborn & Fels, 2015). For this reason, SDT provides a solid framework to help understand why gamification has potential to offer more than just external motivation and provide ongoing motivation for a longer duration.

### **Expectancy Theory**

Expectancy Theory, developed by Vroom (1964) positions motivation as a cognitive phenomenon. Individuals perceive the chances that their effort will lead to a desired outcome. In other words, individuals evaluate:

- **Expectancy:** The probability that effort will lead to performance.
- **Instrumentality:** The probability that performance will lead to the reward.
- **Valence:** The worth of the value.

Gamification aligns with Expectancy Theory, by establishing the clear link between effort and reward. For example, an employee sees the contribution to a leaderboard. the task demonstrates effort leads to performance and performance leads to reward, such as bonuses, recognitions, promotions, titles or accolades.

A downsides of gamification designs is when they weigh overboard on extrinsic rewards. If the rewards lose value, or the rewards are so predictable that they lose some of the novelty, motivation will wane or decline (Landers, 2014). Effective gamification design will create areas for intrinsic motivators combined with extrinsic incentives.

### **Flow Theory**

Flow Theory, developed by Csikszentmihalyi (1990), addresses the psychological state of being engrossed in and enjoying an activity. Flow occurs when an individual's skill level matches their challenge level, allowing for focused attention and enjoyment derived through intrinsic motivation.

Gamification applies the elements of flow by maintaining a match of task difficulty with employee's ability. For example:

- Progressively difficult: Levels and stages guarantee that the friction in challenge increases gradually.
- Honest goals and feedback: Gamification provides instant feedback using points, scores, and notifications that help employees evaluate their performance.
- Immersive: Storyline and narratives in gamification can create worthwhile and interesting experiences that maintain engaged.

Gamification may even help induce flow states which generate more employee engagement, creativity, and overall job satisfaction (Hamari & Koivisto, 2015).

### **Behavioral Reinforcement Theory**

Behavioral Reinforcement Theory is based on B.F. Skinner 's work in operant conditioning that states that behaviors are shaped by their consequences; positive consequences reinforce repeated behavior and negative consequences resolve decreased behavior (Skinner, 1953).

Gamification leverages these principles of reinforcement via its reward structure:

Positive reinforcement: Points, badges, and various bonuses for completing work.

Variable reinforcement: Rewards which are randomized (such as not announcing when bonuses will be awarded for certain tasks or achievements), which aids in keeping engagement methods over the long term.

- **Negative reinforcement:** Removing penalties or unlocking easier options (for example, providing options for an easier performance if an employee hits a certain performance threshold).

This theory embodies why the simplest gamification motivators, such as points or badges, may work in the short term but their long-term success is dependent upon their integration with intrinsic motivators.



## **Goal-Setting Theory**

According to Goal-Setting Theory as proposed by Locke and Latham (1990), specific, difficult goals will lead to higher performance than vague or easy goals. In a gamified context, clear objectives—including completing a milestone, meeting a sales target, or finishing a training module in a defined timeframe—are all ways to apply this learning theory.

Progress bars, levels of achievement, and challenges that involve deadlines all represent the applicability of goal-setting theory and series. Feedback mechanisms that are embedded in gamification systems serve to reinforce the progress in goal-setting by showing employees how close they are to accomplishing their goals, and that motivates them to continue.

## **Social Comparison and Social Exchange Theories**

Social Comparison Theory (Festinger, 1954), explains how people measure their own abilities and performance based on comparisons with other persons. Leaderboards, peer rankings, and systems that recognize fellow peers draw directly from this principle, harnessing competition (or collaboration) to motivate employees to improve.

Social Exchange Theory (Blau, 1964) explains that social relationships are formed based on reciprocal benefits and gamification systems that include aspects of teamwork—collaborative missions, or group achievements—provide employees with the perception that they will reciprocate these efforts through success of the team.

## **Integrating Theories into Gamification Design**

Each of these theories provides a unique perspective on motivation through gamification. Self-Determination Theory is focused on psychological needs, Expectancy Theory on the effort vs. reward relationship, Flow Theory on cognitive engagement through immersion, and Behavioral Reinforcement is centered on reward-centered behavior. Together, these theories provide a logical explanation of how gamification can result in a union of intrinsic and extrinsic motivators and while not always, can enable short-term engagement and leverage a focused strategy of ongoing long-term satisfaction.

A growing body of research suggests that implementing gamification for effective change that incorporates multi-theoretical integration results in more powerful outcomes. For instance, research shows that gamification implementations that create intrinsic satisfaction (SDT and Flow) and extrinsic rewards (Expectancy and Reinforcement) result in a more sustainable and ever-changing implementation of gamification to meet the ongoing needs of employees (Koivisto & Hamari, 2019).

## **GAMIFICATION IN THE WORKPLACE: MECHANISMS AND STRATEGIES**

### **Introduction**

Gamification in workplaces is the application of game-design attributes in the workplace (as a business practice) to encourage participation, increase engagement, and, ultimately, improve performance. Gamification specifically utilizes intrinsic motivators such as achievement, social support, and recognition (Gamify), and collaboration to produce employee engagement, which stands in contrast to traditional management approaches that focus on hierarchical management and externally awarded reinforcement (Games vs Management, 2012). The implementation of gamification is significant, as it represents a transformation in organizational behavior, where organizations are becoming more willing to offer experiences that engage employees' psychological needs. The gamification process that exists between

organizations (companies) and employees has two dimensions: mechanisms (design of game-like attributes) and organizational strategies (the manner in which the organization connects mechanisms to business goals). Core Mechanics of Games in the Workplace:

- **Point Systems:** Points are a form of gamification attribution that represents the lowest level, and are used in connection with measurable progress (or accomplishments) made by employees. Employees accrue points by completing work tasks, completing assignments by deadlines (i.e., productivity), and/or contributing to team goals to help with team processes. Points can serve multiple uses, such as:
- **Performance feedback:** Points are an instant manifestation of effort.
- **Exchangeable value:** Points can be used as currency in exchange for rewards, recognition, or privileges (perks).
- **Behaviora reinforcement:** Points encourage employees to re-engage in behaviors that are preferable or desired.

Research has supported using points to result in significant employee engagement when meaningful feedback is paired with points (Landers, 2014). However, if employees rely on points and do not have intrinsic reinforcement, the long-term effect is diminished.

### **Badges and Achievements**

Badges represent a similar concept; points can indicate achievement or milestones for skills that point out value or competency. In workplace contexts, points are recognized badge examples when employees indicate an achievement in completing a training or to signal they demonstrated competence in a business outcome, such as a sales goal. Badges demonstrate and appeal to an individual's intrinsic reward systems for recognition or social status (Seaborn & Fels, 2015).

Digital badge ecosystems are especially relevant in the professional development systems and creates a workplace recognition for an employee's professional identity while displaying included badges.

### **Leaderboards**

Leaderboards provide an outcome-based competitive environment because they rank and sort employees based upon performance metrics. Leaderboards create transparency and motivate improvement through observation of colleagues' performance and allowing employees to compare their own performance to others. For example, sales teams often use leaderboards to improve motivation about performance by posting the top salespeople rankings in the workplace.

That said careful design is needed for leaderboards. Worker competition can lead to stress, inability to cooperate with co-workers, and could produce low morale for the bottom ranks (Burke, 2014). Hybrid leaderboards are often more effective and should include personal level advancement combined with peer performance metrics.

### **Levels and Progression**

Levels represent an incremental pathway to an accomplishment. For instance, when an employee completes a work task, they level up regarding their experience or exposure to a skill. Progression loops, when players or participants follow small wins with the end goal of achieve larger accomplishments, are fundamental to this gameplay mechanic. For instance, training platforms may assign employee levels (novice, advanced, expert) to encourage learning a new skill and moving through the course material (Werbach & Hunter, 2012).



## **Quests and Missions**

Quests are structured challenges that are representative of narrative-based assignments in games. In a corporate setting, quests can also be used as project-based assignments, cross-functional initiatives, or paths for learnings. Quests utilize narrative and story-based engagement to create connection and narrative structure to an individual's work assignments.

## **Feedback/Real-Time Analytics**

Feedback, instantaneously, is at the center of gamification. So, as research on gamification has elaborated, having dashboards, in-app notifications, or real time analytics of performance and progress provides employees continual access to tracking their performance, while not informing motivation for employees or closing the gap between trying and recognition around Expectancy Theory and Flow Theory (Hamari et al., 2014).

## **Strategies for Gamification within Organizations**

### **Training and Development for Employees**

Gamification has emerged in many corporate training programs to create an interactive and engaging learning experience. A gamified leadership training module is an example of using gamification, in which some companies, like Deloitte, have had their employees progress through levels of the module earning badges of completion (Bunchall, 2013). By gamifying the training content, this adds to the concept value of continuous learning and retaining employee skills.

### **Performance Management**

Gamified performance systems employ points, progress tracking, and reward systems to observe and engage productivity. For example, call centers engage employees through gamification platforms that display performance metrics in real time in order to motivate progress toward a call resolution goal.

### **Recruitment and Onboarding**

Gamification is changing recruitment. Through the use of simulation games, online challenges, and gamified assessments, organizations can assess a candidate's thinking, problem-solving, and teamwork abilities. For example, PwC uses a gamification recruitment platform called "Multipoly" in which job applicants are evaluated in virtual tasks similar to those that could be encountered in the workplace (Armstrong, 2016).

### **Employee Engagement and Retention**

Employee engagement platforms are using gamification as part of their efforts to enhance employee satisfaction and loyalty as engagement platforms become increasingly popular. Employees are also highly motivated by recognition systems, peer-to-peer rewards, and rewards based on progress that improve not only the organizational culture but also retention rates. For example, SAP's community platform gamified participation in knowledge-sharing forums by rewarding those who actively participated (Robson et.al., 2016).

### **Health & Well-Being Programs**

Gamification is applicable in corporate wellness programs. Incentives, tracking devices, and social competitions encourage employees to live healthier lifestyles. These wellness programs improve individual overall well-being with an emphasis on team belief systems.

### **Personalized and Adaptable Gamification**

With improvements in data analytics and artificial intelligence, organizations' usage of personalized gamification activities is only likely to grow. Instead of taking a one size fits all approach, adaptive systems take into account an individual's choices in terms of challenges, rewards, and narratives. Research has suggested that personalization will improve long-term engagement, as gamified experiences are more aligned to employees' intrinsic motivators (Koivisto & Hamari, 2019).

### **Linkage to the Business Strategy**

Gamification will only effect good embedding of behaviors across an organization if it is more than a tool. Similarly, some degree of gamification will encourage engagement and energy in a short term, if it has been designed and embedded as part of the organizations business strategy. Organizations need to design gamification strategies against their values, performance outcomes and expectations for engagement in relation to corporate norms. For instance, if an organizational culture values collaboration and teamwork, then work should be designed around teaming missions rather than pure competition with a leader board.

The intention of gamification strategies linked to business strategy will see it more than a gimmick piece of software and become part of the management practices that strengthens identity and engagement into the future of the organization.

## **IMPACT OF GAMIFICATION ON EMPLOYEE MOTIVATION**

### **Introduction**

Gamification's central aim in a work environment is to engage and inspire employees by employing game elements into organizational structures. Motivation is an important construct that influences employees' actions, job performance, and ultimately continued engagement with an organization (Ryan & Deci, 2000). Gamification enhances motivation through intrinsic motivators (e.g., autonomy, mastery, and purpose) and through extrinsic motivators (e.g., recognition, badges, and financial incentives). The effectiveness of gamification as a motivator can be examined through intrinsic motivation factors, extrinsic motivation factors, engagement, performance, and loyalty to the organization.

### **Gamification and Intrinsic Motivation**

When employees carry out tasks, intrinsic motivation is present when they perform them for the joy of doing them and not based on outside rewards (Deci & Ryan, 1985). Gamification can support intrinsic motivation by:

- Supporting autonomy. When gamified applications include some degree of choice for employees to engage with a task of their choosing, or to pursue discussion with their learning objects in a way they prefer, they feel more a sense of control.
- Encouraging competence. Progress bars, levels, and achievement badges all signal to employees that their skills are being developed or mastered.

- Encouraging relatedness. Team challenges and missions encourage a sense of belonging and social connection.

For example, Mekler et al. (2017) examined children's motivation to continue engaging in tasks, and found that well-designed gamification systems that emphasize real goals increase intrinsic motivation and greater persistence of effort when compared to gamification systems that simply add an incentive reward.

### **Gamification and Extrinsic Motivation**

Extrinsic motivation derives from external reward and recognition, which is a core aspect of a range of gamification designs. For example, points, leaderboards, and badges serve as concrete demonstrations of achievement, providing a motivating experience for the short-run.

- **Recognition and status:** Leaderboards show the top competitors which may foster motivation to achieve higher levels.
- **Monetary or material rewards:** Some gamification systems exchange points for tangible benefits (for example, gift cards, bonus pay, or time off).
- **Social validation:** Recognition may reinforce the extrinsic motivation through word of mouth or social confirmation of achievement.

However, studies suggest caution on using extrinsic motivation as a primary incentive to the online learning processes. Too much emphasis on rewards can decrease intrinsic motivation over time, called the overjustification effect (Deci, Koestner, & Ryan, 1999). Gamification strategies that use a mix of extrinsic and intrinsic gamification techniques help the effect in the long-run effectiveness of gamification.

### **Gamification and Employee Engagement**

Employee engagement is defined as the level of emotional and cognitive investment employees have in their work. Gamification has proven to enhance engagement by actively engaging employees in the work they do, instead of making them feel like their work is a boring chore in the case of mundane tasks.

#### **For example:**

- Training courses that set levels and achievements alleviate some of the boredom in obligatory learning initiatives.
- Interactive dashboards make progress visible in real time, creating transparency and accountability.
- Story telling gamification offers context and purpose, encouraging employees to contribute in meaningful ways.

Gallup's global workforce studies suggest that engaged employees are more productive and innovative, in addition to being more committed (Gallup, 2017). Whenever work is able to provide employees constant feedback and recognition, engagement outcomes are supported by gamification.

### **Performance and Productivity**

Gamification can improve performance by introducing structure in the form of goals, the provision of feedback, and feedback reinforcement structures. Workers frequently report experiencing productivity gains in gamified contexts, in which they experience improved attention, engagement, and cooperation.

- Individual outcomes: Workers strive to earn a win (and, usually, greater individual development) if they are competing against their own performance (or score).
- Team outcomes: Team-based challenges improve collaboration and cooperation.
- Organizational outcomes: Businesses that have integrated gamified designs report improved results, including increased sales, faster onboarding, and higher training completion rates. (Hamari, Koivisto, & Sarsa, 2014)

Example: Microsoft found gamification beneficial in their debugging of software. Employees earned points by finding bugs in software during testing. Use of gamification led to faster and more efficient testing times along with fewer errors within the software. (Pe-Than, Goh, & Lee, 2014)

### **Gamification and #Job Satisfaction**

Gamification contributes to employee job satisfaction as a result of, recognizing employees, providing ongoing feedback, and creating fun experiences. Employees who feel valued and engaged with their work will develop a better work disposition towards the organization.

Gamified wellness programs have been shown to promote personal wellbeing and are positively correlated to job satisfaction and lower burnout (Gómez, Montealegre, & Reinoso, 2020). So, gamification can indirectly influence employee productivity and employee wellbeing.

### **Employee Retention and Lower Turnover**

Employee turnover presents organizations with an expensive challenge, but gamification can assist organizations in retaining employees and developing loyalty and connection to the organization. Gamification is a mechanism for enriching work activities in order to make them more fun and motivating for employees, acknowledge effort, and promote development, thus creating an emotional connection between employees and the organization.

For example, SAP, an organizational software solutions provider, reported reductions in employee turnover stemming from a gamified community platform, which strengthened opportunities for employee professional development and systems to acknowledge employee commitment and contributions (Robson et al., 2016).

### **Possible Risks and Dependency**

There are many positives associated with gamification, but the dependent motivational channel of gamification can be weakened if not well designed.

Potential risks include:

- **Short-term motivation:** Gamification rewards lose their appeal over time, especially if not linked to meaningful work goals.
- **De-motivation of under-performers:** Leaderboards can de-motivate employees who are always listed at the bottom.
- **Cultural misalignment:** Employees with a different cultural background may see gamification mechanics differently, which may lead to inconsistent results.

These issues demonstrate that gamification design must incorporate engagement techniques that are inclusive, internally rewarding, and aligned with the organizational culture.

## **EMPIRICAL EVIDENCE AND CASE STUDIES OF GAMIFICATION IN THE WORKPLACE**

In a variety of fields and industries, the practical effectiveness of gamification to increase employee motivation and engagement is becoming evident in research and case studies. These studies are valuable in providing real-life details regarding how an organization has implemented gamification mechanisms, what results came from those mechanisms, and any recommendations or implications that came out of the implementation, based on the experiences of the organization. The research is clear, there is evidence that a well-designed gamification strategy or mechanism can positively influence intrinsic and extrinsic motivation, job satisfaction, the employee-on-boarding process, and organizational performance.

### **Case Study: Microsoft – Gamification to enhance productivity**

Microsoft has incorporated gamification into a variety of workplaces activities, specifically in their internal testing and translation departments for software projects. The best example of this gamification initiative is the “Language Quality Game” that was developed to engage employees to participate in making Microsoft products better by identifying and correcting translation mistakes across several languages. The game uses points, leader boards and recognition as the motivational aspect of gamification to drive participation. Microsoft noted improvements in employee engagement, and improvement in the accuracy of translations, including pro-active volunteers to assist in the language quality game to engage in a "boring" activity (Flatla et al.,2011). This example demonstrates the power of gamification in a way that gives repetitive work some meaning.

### **Soft Case: Deloitte – Gamified Leadership Training**

The Deloitte Leadership Academy (DLA) integrated gamification into its leadership development program. Gamified elements were incorporated into the program, supporting the learning process and increasing levels of active engagement—tracking progress, levels, and badges, among others, and including leaderboards. Deloitte acknowledged gamification permeated training throughout their system and documented that daily users actively engaged by increasing by 46.6%, and, even recorded far higher course completion (Werbach and Hunter, 2012). The above example illustrates how gamification increases knowledge transfer and employee motivation in training settings. In practical terms, it provides examples of tactical uses that indicate competitive and/or achievement-based gamification, promote organizational learning.

### **Case Study: Salesforce—Motivating Assessing Sales Teams**

Salesforce, one of the largest customer relationship management firms, built gamification assets into their, “Motivator” application to motivate their sales teams to achieve and exceed goals. Their assets included one or more performance dashboards, a leaderboard, and real-time recognition of sales agents. Sales agents were motivated both extrinsically through bonuses and peer recognition, as well as intrinsically through peer competition. This type of gamification promoted employee engagement and cooperation and creates alignment between individual efforts and company objectives.

(Gartner, 2013). This case illustrates the use of gamification to promote extrinsic motivation and intrinsic motivation through peer recognition in an organizational context.

### **Case Study: SAP – Gamification for Software Adoption**

SAP, a large enterprise software company, developed the “Roadwarrior” gamified app to train sales staff on product knowledge. The app used quizzes, points, and social capabilities to reinforce learning and sharing. Employees were able to collaborate while competing for top placements on leaderboards. Gamified training led to improved retention of knowledge, faster onboarding of new sales staff, and more enthusiasm for learning (Hamari et al., 2014). The SAP case study illustrates how gamification can change organizational culture - combining competition with collaboration.

### **Evidence from Empirical Research**

In addition to case studies of companies, empirical studies have shown solid evidence of gamification's effect on employee motivation. A meta-analysis conducted by Hamari, Koivisto, and Sarsa (2014), observed that gamification typically increases engagement, motivation, and positive work attitudes. However, the authors also reported that the effects of gamification depend heavily on the context and the types of gamification mechanisms used. Similarly, controlled studies by Landers, Bauer, and Callan (2017) provided evidence that showed gamification was associated with improved employee performance in training programs that contained gamification.

Additionally, to the extent that gamification enhances employee motivation, there is experimental evidence suggesting that gamification is best at enhancing motivation when it allows the employee to experience autonomy, mastery, and purpose consistent with Deci and Ryan's Self-Determination Theory (1985). For example, in a series of studies, Mekler, Brühlmann, G. Tuch, and Opwis (2017) found that gamified tasks that included meaningful goals and feedback enhanced intrinsic motivation to a greater extent than tasks that used points and badges as the sole gamification mechanisms.

### **Lessons Learned**

There are a number of important lessons from this research, case studies, and ecological evidence:

- **Individualization is Key:** For gamified solutions to be effective, they must be customized for your organization's culture and the unique motivational drivers for each employee.
- **Excess Competition Rather Than Collaboration:** In some instances, leaderboards may demotivate employees due to their ranking in relation to their peers. Competition and/or collaboration are useful ways to increase competition.
- **Motivation Over Time:** Although, gamification can create some initial focus and engagement, engagement over time will rely on a series of a new initiatives that connects employees' values and beliefs.
- **Alignment to Organizational Goals:** When employees are motivated through gamification, they are typically motivated towards a larger and more worthwhile organizational goal.

### **BARRIERS AND CHALLENGES TO GAMIFICATION STRATEGY IMPLEMENTATION IN THE WORKPLACE**

While gamification offers great potential for motivating current employee engagement in the workplace, organizations will face challenges with application and design. Organizations will face issues with design and implementation issues, employee and workplace culture perceptions, technology, and sustainability issues. Organizations should be mindful of these challenges, understand reframing strategies to the implementation process, and better motivate employees.



### **Barriers related to poor design and lack of fit to employee needs.**

One of key barriers to gamifying work environment related to worker engagement is poor design of gamified or multi-dimension instant feedback systems. Oftentimes, gamification is applied on a superficial level (or simply “pointsification”) in the workplace by just adding points, badges, and leaderboards (Bogost, 2011) and therefore does not yield any meaningful motivation. Employees may perceive gamified systems as manipulative or irrelevant as a result of the poor design, which then leads to lower engagement. Additionally, a poor design also means that gamified systems may lack alignment with employees’ intrinsic motivation to engage in specific tasks which also leads to disengagement. For example, a game board may use competitive leaderboards and some employees will perform better under competition while others will not (leaderboards can cause stress for some employees). This is also why personalization of the final design is essential.

### **Issues with Technology and Resources**

Gamification frequently relies on technological infrastructure (e.g., a mobile application, specialized software, an integrated dashboard, etc.). The cost of purchasing, developing, or sustaining gamification can be considerable for small- and medium-sized enterprises (SMEs; Xu et al. 2015). Additionally, there is the threat that the organization will not have the internal expertise to appropriately deploy gamification, which can lead to under-realized systems and inadequate outcomes. Resources were not solely financial; personnel also need some free time to continue updating, monitoring, and assessing gamification initiatives. If enough resources aren't invested in an ongoing gamification initiative, value or effectiveness can deteriorate.

### **7.3 Risk of Compounding Extrinsic Rewards**

It is not uncommon to see reliance and excessive dependence on extrinsic rewards (e.g., points, prizes, money, etc.). While extrinsic rewards may increase engagement in the short-term, over time, they may undermine intrinsic motivation (Deci & Ryan, 1985). The overjustification effect occurs when employees become disinterested in their work once the extrinsic motivation (reward) is removed. For instance, if an employee's motivation stems solely from earning points through gamification, they may disengage once the games become repetitive or exhausting. Therefore, gamification needs to be balanced to enhance or build intrinsic motivators, such as mastery, autonomy, and purpose.

### **Cultural Resistance and Employee Perceptions**

For gamification to be effective, organizational culture is key. - If employees see gamification as trivializing their work or as management just using gamification for control when not working as a team., then they may show resistance towards gamification initiatives (Kim, 2015). Some employees may also feel that gamification is at odds with their existing professional culture in traditional or hierarchical organizations, as well as generational differences., Employees who are younger may be more likely to embrace gamified solutions, - older workers may see it as added distraction,- anyway this can always be the case.

### **Inequality and unintended consequences**

Depending on the gamified system -some are competitive - and reward gamification, inequalities can emerge. Top performers kill leaderboards meaning that lower rankers may feel demotivated, or not worth measuring (Seaborn & Fels, 2015). It can also lead to unhealthy competition with the same issue created; this might even backfire and lead workers to feel stressed with possible burnout, or even lead to conflict with colleagues-. Moreover, even gamification that tracks employee performance in real-time forgot and

ps people unsustainable pressure on people to focus on the short-term performance concerns, trapping them from long-term opportunities.

### **Issues in Return on Investment (ROI) and Effectiveness**

Organizations struggle with the ROI of gamification programs. While gamification may help improve engagement levels in the short term, it is difficult to measure changes in productivity, motivation, and retention in the long-term (Hamari et al., 2014). Managers may not find it easy to justify ongoing investment without clear metrics of effectiveness. Additionally, when goals are not clearly defined, or there is disconnect between the outcomes of gamification and organizational goals, organizations may find their resources are wasted.

### **Sustaining Engagement**

Another complication is the sustainability aspect of gamification systems. Gamification can be incredibly engaging, jolting individuals into activity, but novelty effects rapidly diminish when the game mechanics do not change. Employees may become desensitized to earning points, badges, or repeatedly completing the same challenges (Koivisto & Hamari, 2019). Sustainability is the same problem for engagement as it is for motivation; employees require a consistent series of challenges, updates, or ongoing changes for gamified elements to be integrated into their work process.

### **Ethics and Privacy Concerns**

Gamification systems require the collection and analysis of data regarding employee performance indicators, patterns of behavior, or levels of engagement, which can prompt a number of ethical questions about employee privacy, autonomy, and informed consent (Kim & Werbach, 2016). Once an employee begins to feel their data is being exploited or excessively surveilled, trust in the organizational context can rapidly decline. Finally, ethical dilemmas are bred out of gamification systems that influence behavior at the individual's expense, with no substantive reciprocal benefit.

### **Challenge Summary**

- The challenges to implementing gamification systems can be summarized in a list: Design challenges- Misaligned system design lead to disengagement.
- Technology/resource challenges- High implementation costs, lack of expertise, lack of resources.
- Over-reliance on external rewards- Potential to spoil intrinsic motivation.
- Cultural resistance- Misaligned with organizational norms or perceptions of employees.
- Inequity/unintended consequences- Possible demotivation, and unhealthy competition.
- Measurement problems- No clear ROI and no standards for measuring long-term.
- Sustainability challenges- Low engagement after novelty wears off.
- Ethical/privacy challenges- Potential for surveillance and manipulation.

## **CONCLUSION AND RECOMMENDATIONS**

### **CONCLUSION**

Gamification has emerged as a powerful managerial tool for designing motivation and engagement in work-based processes and enhancing performance in various work-related contexts. By integrating game dynamics (e.g., points, badges, leaderboards, feedback loops, stories, etc.) into defined organizational processes, employers are able to leverage both intrinsic and extrinsic motivation. There is an abundance of

empirical evidence (e.g., Microsoft, Deloitte, Salesforce, SAP, etc.) that gamification can indeed facilitate employee engagement in tedious required work, enhance employee learning, stimulate collaboration between employees, and enhance overall motivation to productively perform work roles.

Looking back at the chronological development of gamification provides knowledge of its origins through behavioral psychology, game design, and motivational theories. The theoretical foundation of gamification is aligned to Self-Determination Theory (Deci & Ryan, 1985) and Expectancy Theory (Vroom, 1964) which describe the satisfying of the needs for autonomy, competence, and relatedness while aligning employee performance with organizational goals.

Despite these challenges, gamification still presents its own set of significant challenges. Common issues including poor design, cultural pushback, dependence on extrinsic reward systems such as points, technological and cost barriers, and ethical considerations — can all present significant obstacles to achieving continuous successes. Also, gamification initiatives can fail completely, if they solely rely on novelty affects only and are not continuously iteration or more aligned with organizational strategy,

There is significant potential for gamification to spur motivation in the workplace overall — but this comes down to design, ethics, and sustainable integration of gamification into organizational culture.

## **RECOMMENDATION**

Here is a few recommendations that could assist organizations in laying the groundwork for actionable and sustainable gamification initiatives, based on this research.

### **Purposeful Design and System Alignment**

Gamification should not simply be "pointsification." Gamification should seek to be integrated with your systems goals and be accounts for employee experience needs. Systems must be designed purposely so that they are capable of developing real progress and outcomes and not just offering rewards for irrelevant behaviors.

### **Balance Between Extrinsic and Intrinsic Driver**

Gamification should typically try to minimize dependence of extrinsic reward systems, and as a whole, rewards can diminish intrinsic motivators. Gamification should promote themes of mastery, autonomy, and purpose for long-term engagement.

### **Personalization and Inclusiveness**

Strategies for gamification should consider various employee preferences through multiple participation modes while avoiding generalized approaches. Personalization and attention to compete/compete various participation styles can help all employees feel involved in some capacity and in a way that is comfortable to them.

### **Support and Awareness of Organizational Culture**

For gamification to be effective, it also needs to preemptively align to the broader organizational culture and enhance and integrate any existing culture. Leaders should personally demonstrate mutual engagement first as a successful framework. Leaders should be participants in the gamification process and consider engagement as a part of the overall organizational culture as opposed to simply a top-down management tool.

### **Ethical Data Usage**

Transparency in data collation and utilization is important. Consideration of data collection and use is important for employees to understand specifically how their performance data is collected, analyzed and used and what action is motivated based on that data. Guidelines for ethics should be defined in advance and emphasize potential risks associated with data misuse without employee consent.

### **Invest in Technology and Training**

Organizations need to provide the required technological infrastructure to enable managers and employees to effectively interact with gamification systems, and consideration may be given to partnerships, or license arrangements, with external platforms to lower implementation costs.

### **Measure and Evaluate Impact**

It is essential to create specific metrics to evaluate success in the gamification effort. Evaluation should focus on not only immediate engagement, but also on longer-term measures, such as job satisfaction, productivity and retention.

### **Sustain Engagement through Iterative Design**

Gamification systems must be adaptive and dynamic so that the novelty effect will not wear off. Organizations should update challenges, stories and rewards frequently and solicit employee feedback in the process.

### **Encourage Cross-organizational Learning**

As previously mentioned, organizations should seek out opportunities to learn from successes in gamification from other sectors, adapt valuable practices to their unique organizations. Partnering with research agencies to evaluate and implement gamification frameworks may assist in this effort too.

### **Pilot Programs Prior to Broader Use**

The organization will benefit from piloting gamification strategies when it allows for the opportunity to test the strategy in smaller departments or teams to identify potential weaknesses, revise design, and identify any impact on the organization prior to full roll-out.

### **Final Thoughts**

Gamification is not a panacea for motivation in the workplace; but, it can motivate employee engagement, encourage organizational learning, and ascend performance improvement when used carefully. As work continues to change in the face of an increasingly digitized and competitive context, gamification provides organizations with a flexible platform to rethink motivation strategies. Presumably, advancements in artificial intelligence, data analytics, and immersive technologies (e.g., virtual and augmented reality) will raise the potential of gamification to be of use and, in some ways, be a managing feature.

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