THE INFLUENCE OF GAMIFICATION ON EMPLOYEE ENGAGEMENT AND ORGANIZATIONAL PRODUCTIVITY IN COMPANY BUSINESS INNOVATION

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Abstract

The objective of this study is to examine the impact of gamification elements, such as feedback, construction, challenges, and stories, on employee engagement and organizational productivity. This study employs Structural Equation Modeling (SEM) with Partial Least Squares (PLS) for the analysis of the data. This study encompassed a cohort of 50 individuals who were employed by a company that provides technological services. Findings from the research Elements of gamification, such as feedback, structure, and narratives, are crucial in enhancing employee engagement. The analysis of the results indicates that feedback, structure, and stories have a substantial positive impact on employee engagement and organizational productivity. However, the presence of a challenge does not have a notable impact on employee engagement or organizational productivity.

INTRODUCTION

In an era of ever-growing business, companies are faced with the challenge of not only developing the quality of employees, but also ensuring their involvement in the work environment. Employee engagement has indicators including Vigor, Dedication, and

Absorption (Aon Hewitt, 2017). One innovative approach that is starting to gain attention is the application of gamification, which involves the use of game elements in non-game contexts.

The importance of gamification in a business context was identified by Kapp et al. (2014), who identified the key factors of gamification, including feedback, construct, challenge and story. Although gamification has received much attention as a means of improving employee engagement and performance, the existing research highlights some important deficiencies. While the theoretical foundations of gamification have been examined, there is limited and inconclusive empirical data to support its usefulness in the corporate setting. Prior research, shown by the studies conducted by Kapp et al. (2014) and Hamari et al. (2018), frequently encounters methodological limitations such as limited sample numbers and insufficient analytical methods, hence restricting the applicability of their results.

Moreover, a significant portion of the existing literature primarily emphasizes client engagement, while paying little attention to its implementation in the realm of staff engagement. This creates a substantial void in comprehending how gamification might be strategically utilized to promote more employee engagement in different corporate contexts. Furthermore, the ever-changing and situation-dependent character of gamification results requires a more detailed examination in various cultural and organizational settings. Although studies have shown the potential of gamification to improve employee engagement, there is still less research on how it specifically works in the Indonesian setting.

Furthermore, there is a dearth of extensive research that investigates the interaction between different components of gamification, such as feedback, structures, challenges, and stories, and their combined effect on employee engagement and organizational productivity. Previous study has primarily focused on examining these aspects separately, which has resulted in neglecting the possible synergistic effects and interactions that could enhance their efficiency.

In Indonesia, where there is a significant lack of employee engagement (Riatmaja et al., 2021), it is essential to comprehend the distinct cultural and organizational aspects that impact the effectiveness of gamification projects. This unique gap in knowledge highlights the importance of conducting empirical research that not only assess the direct impacts of gamification but also take into account moderating factors such as organizational culture, management strategies, and employee demographics.

This research intends to provide a thorough investigation of the impact of gamification features on employee engagement and organizational productivity in Indonesia, with the intention of addressing existing gaps in knowledge. This study aims to provide more dependable and widely applicable insights by implementing rigorous methodological approaches and increasing the size of the sample. The main objective of this research is to provide new tactics that can improve employee engagement and

performance. These strategies will assist firms overcome the difficulties of a competitive work environment.

THEORITICAL REVIEW

Employee Engagement

Discussions regarding employee involvement in the world of work or human resource management are important discussions for company business development. Employee involvement is a strategic perspective with the aim of improving organizational performance (Ram & Prabhakar, 2011), showing the importance of this role in a company. Actively engaged employees participate in work or the company with enthusiasm (Ngwenya & Pelser, 2020). The responsibility for increasing employee engagement and engagement lies with company leaders (Gholz, 2019). Schaufeli (2002) details three key characteristics of engaged employees: (1) vigor, showing a strong mentality, high work desire, and perseverance in facing challenges; (2) dedication, reflected in enthusiasm for work, sense of purpose, pride, and readiness to face challenges; and (3) absorption, characterized by a high level of concentration, keen interest in work, and difficulty disengaging from the task or organization.

Organizational Productivity

Organizational productivity refers to the ability of an entity or institution, both public and private, to achieve its goals optimally, efficiently and effectively. This productivity does not only include quantitative output, but also the quality of the results produced. In an organizational context, productivity includes how resources such as time, labor and capital can be optimized to achieve maximum results. Factors that can influence organizational productivity according to Jailani & Akhyar (2021) include training, employee mentality and abilities, and relationships between layers of positions (superiors - subordinates). Organizational productivity is crucial in assessing the health and sustainability of an entity in achieving its goals and responsibilities towards stakeholders.

Gamification

Gamification can be described as an interesting and entertaining game-based activity. Meanwhile, Gamification in the corporate context refers to the application of game elements and game strategies in the work environment to achieve certain business goals. This approach aims to increase employee engagement, motivate desired behavior, and improve overall organizational performance. According to Conaway et al. (2014), it involves incorporating enjoyable aspects of games into real-life activities for entertainment purposes. Liu et al. (2015) define gamification as an approach that indirectly uses game design elements to inspire and increase participant engagement. These elements, as outlined by Holmes & Gee (2016), include features such as leaderboards, badging, and game-like narrative structures. From a business perspective, gamification, as highlighted by Gryaznova (2019), pursues several goals: 1) increasing

employee engagement and motivating behavioral change, 2) improving business metrics, 3) achieving business goals, and 4) fostering loyalty. Kapp et al. (2014) identified key indicators of gamification, including feedback, construct, challenge, and story.

1. **Feedback**

   Feedback is a feedback mechanism that provides information about individual or organizational performance. In the context of employee engagement, research shows that feedback has a positive and significant impact on employee engagement levels. Hamari & Koivisto (2013) found that the gamification factor in feedback had a significant impact on employee engagement, while Rodrigues & Walters (2017) emphasized that effective feedback provides direct information about performance, stimulates achievement, and provides guidance to improve performance. Gamification elements such as points, rankings, and rewards make feedback more engaging, increase motivation, and create an environment that supports employees' personal and professional development. Regarding organizational productivity, research also shows that feedback has a positive and significant impact. Gerdenitsch et al. (2020) stated that gamification in feedback has a positive impact on organizational productivity, while a system of awarding points and recognizing achievements can increase employee engagement and motivation (Hussain et al., 2018). Thus, feedback that is delivered clearly, positively, and equipped with gamification elements can effectively increase employee engagement and organizational productivity, create a competitive work environment and stimulate innovation. Thus, researchers can draw the following hypothesis

2. *Construct*

   Constructs, or elements designed with a specific purpose, have a positive and significant influence on employee engagement, especially in the context of gamification. The study by Amelia et al. (2023) show that constructs such as a clear mission, challenging challenges, and reward systems can create an interesting and enjoyable work environment, stimulating employee engagement through achievement, increased job satisfaction, and intrinsic motivation. In addition, not all constructs have a significant influence on employee engagement, as stated by Ērgle & Ludviga (2018). On the other hand, in the context of organizational productivity Benitez et al. (2022) found that constructs can have a significant effect on organizational productivity. Therefore, careful and effective use of constructs in the context of gamification can be a relevant strategy for increasing employee engagement and organizational productivity. Thus, researchers can draw the following hypothesis.

3. **Challenges**

Challenge can be defined as a situation or task that is challenging, complex, or requires extra effort to overcome. The relationship between challenges and employee engagement and organizational productivity is very complex and can vary depending on context and management. The research results show divergence in the impact of challenges on employee engagement. Hammedi et al. (2021) stated that the gamification challenge factor had no significant effect, while Gamayanto et al. (2023) found a significant positive effect. Challenges can increase employee engagement through higher motivation and achievement if managed well, accompanied by adequate support and guidance. However, if challenges are faced without adequate strategies or support, it can harm employee engagement and lead to lower morale. Likewise, in the context of organizational productivity, challenges can enhance or hinder performance depending on the management and strategies implemented. Therefore, management needs to design challenges wisely, provide adequate support, and establish clear strategies in order to increase employee engagement and overall organizational productivity (Bantham et al., 2021; Ivanov & Dolgul, 2019). Thus, researchers can draw the following hypothesis.

4. **Story**

Story in gamification refers to the use of narrative or stories as an element to increase the involvement and motivation of participants in achieving certain goals or tasks. Stories or stories in gamification have a positive and significant impact on employee engagement and organizational productivity. Research by Rivers et al. (2016) found that motivating and inspirational stories can create an emotional bond between employees and company goals, resulting in a sense of identity, pride, and belonging to a shared vision. Storytelling not only conveys information, but also triggers a deeper understanding of employee tasks and the impact of their work on the success of the organization. In addition, research by Bahadoran et al. (2023) shows that the application of story elements in gamification also has a positive and significant effect on organizational productivity. Stories or narratives related to organizational goals can motivate employees to achieve their targets, creating an environment that fosters collaboration, healthy competition, and a sense of accomplishment, which in turn spurs overall organizational productivity. Thus, stories in gamification become a strategic tool to increase employee engagement and organizational productivity (Rivers et al., 2016; Bahadoran et al., 2023). Thus, researchers can draw the following hypothesis.

H7: "Story has a significant and positive effect on employee engagement"

H8: "Story has a significant and positive effect on organizational productivity"

Based on the hypothesis that has been prepared above, the framework for thinking in this research can be seen in the picture below.
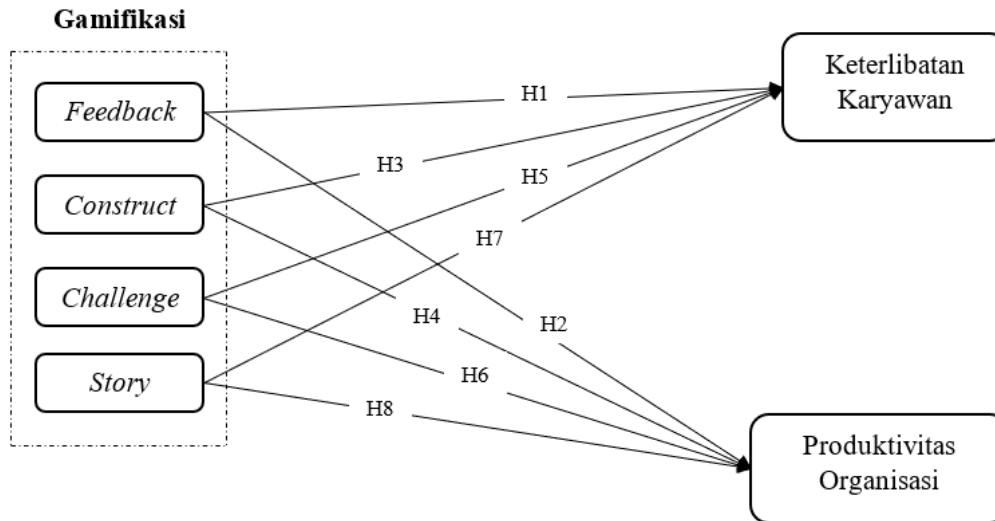

Figure 1. Framework of thinking

RESEARCH METHODS

Research design

This research applies quantitative research methods from the beginning to the design of the research. The research method for this research is based on the survey method. A brief survey-based methodology of available instruments is used to capture various factors related to human experience(Marczyk et al., 2010). This approach is used to investigate certain populations or samples, with data collection carried out through research instruments. Data analysis in this research is quantitative/statistical in nature, with the main aim being to test previously established hypotheses. Therefore, this research design was prepared with the aim of providing a deeper understanding through a quantitative approach to the phenomenon being studied in a population or sample of employees.

Population and Sample

Population refers to a general area consisting of objects or subjects with certain qualities and characteristics determined by researchers for research, with a division between the general population and the target population. The general population is employees who work at one of the Technology Provider Companies, with a total of 50 people. The target population, on the other hand, is the focus of the applicability of research conclusions. To extract data, this research uses a sample, which is described as part of the population that is the data source. The sampling technique used is saturated

sampling, where all members of the population are used as samples because the population is relatively small. Thus, the research sample consists of 50 employees.

Data collection

In this research, data collection was carried out using two main data collection tools, namely questionnaire techniques and documentation techniques. Primary data was obtained through questionnaires distributed to respondents, namely employees. As a direct data source, this questionnaire aims to collect respondents' views and responses to the phenomenon under study(Hair et al, 2012). The measurement method in this research questionnaire uses a Likert scale, which is used to measure respondents' attitudes, opinions and perceptions of social phenomena. This Likert scale has five levels of assessment, starting from "Strongly Agree" to "Strongly Disagree," with each assessment value according to the predetermined Likert scale table. This measurement scale provides the basis for producing quantitative data that allows a more systematic analysis of the variables studied. Apart from that, secondary data is also used as supporting data and is obtained from various sources such as books, online journals, articles and news that are relevant to study.

Operational Variables

The operational variables used in this research are as follows.

Table 1. Research Operational Variables

NameVariable	**Dimensions**	**Measurement Scale**
Employee Engagement	*Vigor*	*Likert*
	Dedication	
	Absorption	
Organizational Productivity	Training	*Likert*
	Employee mentality and abilities	
	Relationship between layers of positions	
Gamification	*Feedback*	*Likert*
	Construct	
	Challenges	
	Story	

Data analysis technique

The Analysis Stage is the process of systematically organizing and grouping data to identify patterns, themes and basic descriptive units so that working hypotheses can be formulated based on the data (Moleong, 2014). Data analysis used in this research involved descriptive statistical analysis and Structural Equation Modeling (SEM). PLS is

a method for solving Structural Equation Models (SEM) which in this context is superior to other SEM techniques. SEM has a high level of flexibility in research that connects theory and data, and is able to carry out path analysis with latent variables.

The analysis technique in this research uses the PLS method which is carried out in two stages, namely:

1. The first stage is testing the measurement model, namely testing the construct validity and reliability of each indicator.
2. The second stage is to test the structural model which aims to determine whether there is an influence between variables/correlation between constructs which is measured using the t test.

Hypothesis

H1: "Feedback has a significant and positive effect on employee engagement"
H2: "Feedback has a significant and positive effect on organizational productivity"
H3: "Construct has a significant and positive effect on employee engagement"
H4: "Construct has a significant and positive effect on organizational productivity"
H5: "Challenge has a significant and positive effect on employee engagement"
H6: "Challenge has a significant and positive effect on organizational productivity"
H7: "Story has a significant and positive effect on employee engagement"
H8: "Story has a significant and positive effect on organizational productivity"

Based on the hypothesis that has been prepared above, the framework for thinking in this research can be seen in the picture below.
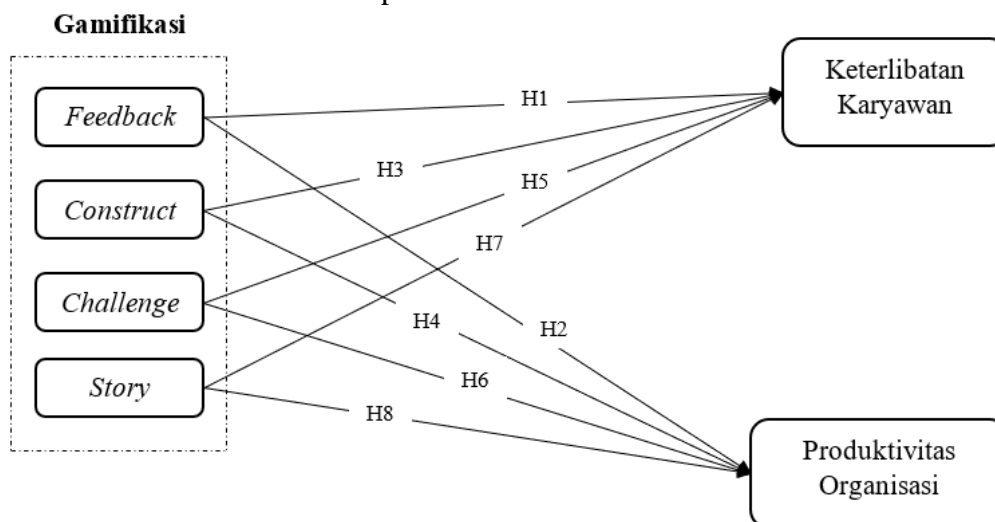

Figure 1. Framework of thinking

RESULTS AND DISCUSSION

Results

1. Test Measurement model (Outer model)

a. Convergent Validity **and Composite Reability**

Covergent validity is a measurement model with reflexive indicators assessed based on the correlation between the item score or component score and the construct score. In this research, the covergent validity test was carried out using a loading factor limit value of 0.7.

Table 2. Outer Loading Factor

Items	Challenges	Construct	Feedback	Employee Engagement	Organizational Productivity	Story
G1			1,000			
G2		1,000				
G3	1,000					
G4						1,000
KK.1				0.886		
KK.2				0.927		
KK.3				0.920		
PO.1					0.869	
PO.2					0.960	
PO.3					0.900	

Source: PLS Output Results, 2023.

Based on the results of the convergent validity evaluation through the outer loading factor for each construct indicator contained in each variable through the loading factors presented in table 2, it is known that each construct indicator has a value above 0.70, so it is declared valid. The results of the second outer loading factor can be found in the figure. the following :

a. Discriminant Validity Test

Discriminant validity from a measurement model with reflexive indicators assessed based on cross-loading of measurements with constructs. The discriminant validity test in this research was seen based on the average variance extracted (AVE) value with a criterion of > 0.50. The results of the discriminant validity test can be seen in the table below :

Table 3. Discriminant Validity Test Results

Variable		Cronbach's alpha	Average extracted (AVE)
Challenges		1,000	1,000
Construct		1,000	1,000
Feedback		1,000	1,000
Employee Engagement		0.898	0.830
Organizational Productivity		0.896	0.829
Story		1,000	1,000

Source: PLS Output Results, 2023.

The results of the discriminant validity test in table 3 are seen based on the average value extracted (AVE) for all research variables which is greater than 0.5. Apart from that, the Composite reliability test which measures a construct can be evaluated with a Cronbach's alpha greater than 0.7. Table 3 shows that all Cronbach's alpha values for all research variables are greater than 0.7. So it can be concluded that the research variables Feedback, Construct, Challenge, Story, Employee Involvement, Organizational Productivity are declared valid and reliable.

2. Structural model (Inner Model)
a. R-Square Test
R-square testaims to measure the level of variation in changes in the independent variable towards the dependent variable. The R-square value has the criteria of showing a large influence at the structural level. The R-square test results can be seen in the table below :

Table 4. R-Square Test Results

Question	R-Square	Adjusted R-Square
Employee Engagement	0.411	0.360
Organizational Productivity	0.356	0.300

Source: PLS Output Results, 2023.

The results of the R-square test on the Employee Engagement variable obtained an R-square value of 0.360. This shows that the Feedback, Construct, Challenge, and Story variables have a big influence in predicting the Employee Engagement variable by 36%. The Organizational Productivity variable obtained an R-square value of 0.300. This shows that the Feedback, Construct, Challenge, and Story variables have a big influence in predicting the Organizational Productivity variable by 30%.

b. **T-statistic Significance Test**

The t-statistical significance test was carried out to determine the influence of exogenous variables on endogenous variables partially. The t-statistic significance test was carried out using a significance level of 5% and comparing the t-statistic values with the t-table. The t-table value is obtained based on the df (degree of freedom) formula, namely df= n -k = 50-6 = 44, so the t-table value is 2.00856. The results of the t-statistic significance test can be explained as follows:

Table 5. T-Statistic Significance Test Results

Hypothesis	Influence of Variables	Coefficient	T Count	P Value	Information
H1	Feedback → Employee Engagement	0.289	2,667	0.008	Significant
H2	Feedback → Organizational Productivity	0.379	3,450	0.001	Significant
H3	Construct → Employee Engagement	0.316	2,308	0.021	Significant
H4	Construct → Organizational Productivity	0.077	0.518	0.605	Not significant
H5	Challenge → Employee Engagement	-0.278	1,536	0.125	Not significant
H6	Challenge → Organizational Productivity	-0.162	0.971	0.332	Not significant
H7	Story → Employee Engagement	0.357	2,065	0.039	Significant
H8	Story → Organizational Productivity	0.395	2,308	0.021	Significant

Source: PLS Output Results, 2023.

The results of the research significance test (See Table 5.) show that there is a significant influence between gamification factors, namely Feedback, Construct, and Story, on Employee Engagement. Hypothesis H1 states that feedback has a positive effect on employee engagement and is significant with a coefficient value of 0.289, t count of 2.667, and p-value of 0.008. Likewise, hypotheses H3 and H7 link Construct and Story with Employee Engagement respectively, with coefficients of 0.316 and 0.357 respectively, t-counts of 2.308 and 2.065, and p-values of 0.021 and 0.039 respectively.

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Meanwhile, test results on gamification factors on employee productivity show mixed results. The Feedback (H2) and Story (H8) factors have a positive and significant influence on Organizational Productivity, with coefficient values of 0.379 and 0.395 respectively, t-counts of 3.450 and 2.308, and p-values of 0.001 and 0.021. However, the Construct factor (H4) was not proven to be significant on Organizational Productivity with a coefficient value of 0.077, t count of 0.518, and a high p-value of 0.605. The Challenge factors (H5 and H6) also do not have a significant influence on either Employee Engagement or Organizational Productivity, with p-values of 0.125 and 0.332 respectively.

Overall, these results indicate that Feedback, Construct, and Story can be considered important factors in increasing Employee Engagement. Meanwhile, Feedback and Stories also make a positive contribution to Organizational Productivity. However, it should be noted that Construct and Challenge do not have a significant effect on Organizational Productivity, and Challenge is not significant on Employee Engagement. The SEM PLS model diagram is obtained as follows.
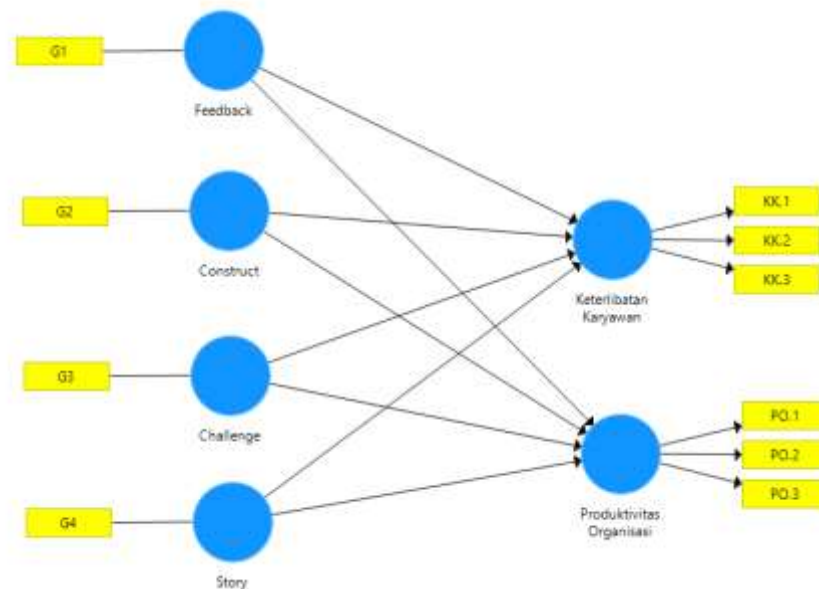

Figure 2. SEM PLS Model Diagram

Discussion
Feedback on Employee Engagement

The research results show that feedback has a positive and significant effect on employee engagement. In accordance with the results of research conducted by Sitorus (2016) which states that the gamification feedback factor has a significant effect on employee engagement. On the other hand, Passalacqua et al. (2020) revealed that feedback has no significant effect on employee engagement. Rodrigues & Walters (2017) revealed that through an effective feedback mechanism, employees can obtain direct

information about employee performance, feel achievement, and receive guidance to improve employee performance. With gamification elements such as points, rankings, and rewards, feedback becomes more engaging and provides additional incentives for employees to engage more actively in tasks and projects. In addition, feedback that is delivered clearly and positively can increase motivation and job satisfaction, create a work environment that supports personal and professional development, and provide positive encouragement in achieving company goals.

Feedback on Organizational Productivity

Feedback has a positive and significant effect on organizational productivity. In accordance with the results of research conducted by Gerdenitsch et al. (2020) which states that the gamification feedback factor has a significant effect on organizational productivity. On the other hand, Paul et al. (2015) revealed that feedback does not have a significant effect on organizational productivity. Through gamification mechanisms, direct, measurable feedback and providing recognition for achievements can increase employee engagement and motivation. Hussain et al. (2018) revealed that the system of awarding points, levels, or prizes in the context of gamification provides additional incentives to achieve targets and increase company productivity. Employees who get regular feedback tend to be more focused, enthusiastic, and strive to increase their productivity. Additionally, gamification can create a positively competitive work environment, stimulate collaboration, and encourage innovation. Thus, feedback in gamification not only increases individual engagement but also overall increases organizational productivity and performance effectively.

Construct Against Employee Engagement

The research results reveal that Construct has a positive and significant effect on Employee Engagement. In accordance with the results of research conducted by Amelia et al. (2023) which states that the gamification construct factor has a significant effect on employee engagement. On the other hand, Ērgle & Ludviga (2018) revealed that Construct has no significant effect on Employee Engagement. By developing relevant constructs, such as a clear mission, challenging challenges, and a motivating reward system, companies can create an attractive and enjoyable work environment (Amabile & Pratt, 2016). These constructs can trigger employee engagement because they provide a sense of accomplishment, increase job satisfaction, and stimulate intrinsic motivation. Thus, the concept of gamification can be an effective tool for increasing employee engagement, spurring productivity, and creating a dynamic work culture.

Construct on Organizational Productivity

The research results reveal that Construct does not have a positive and significant effect on organizational productivity. In accordance with the results of research conducted by Sengupta & Sengupta (2015) which states that the gamification construct factor does not have a positive and significant effect on organizational productivity. On the other hand, Benitez et al. (2022) revealed that construct has a significant effect on organizational productivity. If gamification elements are not designed or implemented well, they can result in distraction, a tendency towards less focused task solving, or even

a decrease in work quality (Karolus et al., 2023). Poor work quality will result in poor organizational productivity.

Challenges to Employee Engagement

The research results reveal that Challenge does not have a positive and significant effect on Employee Engagement. In accordance with the results of research conducted by Hammedi et al. (2021) which states that the gamification challenge factor has no significant effect on employee engagement. On the other hand, Gamayanto et al. (2023) revealed that Challenge has a significant effect on Employee Engagement. On the one hand, challenges can be a motivational driver for employees to improve employee performance and achieve higher achievements. However, this positive impact often depends on how these challenges are faced and managed by leadership (Bantham et al., 2021). If challenges are well designed and accompanied by adequate support and guidance, employees are likely to feel engaged and motivated to overcome obstacles. Conversely, if challenges are perceived as impossible or unfair, or if employees do not feel they have enough support, this can be detrimental to employee engagement and can even lead to lower morale.

Challenges to Organizational Productivity

The research results reveal that Challenge does not have a positive and significant effect on Organizational Productivity. If challenges are faced without a clear strategy or without adequate support, it can cause confusion, stress and reduced morale among employees. Uncertainty regarding how to overcome challenges can hinder work processes and cause disruption in organizational operations (Ivanov & Dolgul, 2019). Additionally, if leaders are unable to provide effective direction or appropriate solutions, employees may feel unmotivated to achieve organizational goals. Therefore, it is important for management to design a clear strategy and provide adequate support so that the challenges faced do not hamper the overall productivity of the organization.

Story on Employee Engagement

The research results reveal that Story has a positive and significant effect on Employee Engagement. In accordance with the results of research conducted by Rivers et al. (2016) which states that the gamification story factor has a significant effect on employee engagement. By crafting stories that are motivating, inspirational, or detailing positive accomplishments, organizations can create an emotional bond between employees and the company's goals (Hiner et al., 2022). These stories not only convey information, but also trigger a sense of identity, pride, and belonging to a shared vision. Additionally, storytelling can help detail the context and meaning of employees' tasks, inspire collaboration, and provide a deeper understanding of the impact of their work on organizational success. Thus, storytelling becomes an effective tool for increasing employee engagement, motivating them, and creating a more positive work environment.

Story on Organizational Productivity

The research results reveal that Story has a positive and significant effect on organizational productivity. In accordance with the results of research conducted by Bahadoran et al. (2023) which states that the gamification story factor has a significant

effect on organizational productivity. Implementing story elements in gamification can significantly increase organizational productivity by creating a more engaging and motivating experience for team members. By designing stories or narratives related to organizational goals, employees become more engaged and motivated to achieve their targets. Through the creation of characters, conflict, and achievements in the context of games, gamification creates an environment that fuels collaboration, healthy competition, and a sense of accomplishment, spurring organizational productivity.

CONCLUSIONS AND RECOMMENDATIONS

The conclusion of this research is that gamification factors, such as Feedback, Construct, and Story, have an important role in increasing employee engagement. The analysis results show that Feedback, Construct, and Story significantly contribute positively to employee engagement. Apart from that, Feedback and Stories also have a positive impact on organizational productivity. Although Construct has not been proven to be significant to organizational productivity, this does not reduce the importance of Feedback and Story as important factors in this context. Meanwhile, the Challenge factor did not show a significant influence on either employee engagement or organizational productivity.

The implication of these findings is that organizations can more effectively increase employee engagement by paying attention to aspects of gamification such as Feedback, Construct, and Story. In an effort to increase organizational productivity, understanding the positive impact of Feedback and Stories can be the basis for a more effective management strategy. Although Construct and Challenge did not show significant impact, companies need to consider adapting their gamification strategies to better suit the needs and characteristics of employees and the organization. The recommendation that can be drawn from the results of this research is the importance of developing a gamification strategy that focuses more on the application of Feedback, Construct, and Story in a business context. Organizations can design gamification programs that strengthen positive interactions between employees and the company through effective feedback mechanisms, constructs that build engagement, and motivating narratives. In addition, it is recommended to continuously monitor and evaluate the impact of implemented gamification strategies in order to make necessary adjustments according to organizational dynamics and employee needs.

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