

Impact of Gamification in Employee Engagement and Productivity

V.M.Sajitha,

*Assistant Professor,
Valliammal College for Women,
E-9 Anna nagar East,
Chennai - 600 102.*

R. Logashree,

*III B. Com (Accounting & Finance),
Valliammal College for Women,
E-9 Anna nagar East,
Chennai 102*

S.Sandhiya,

*III B. Com (Accounting & Finance),
Valliammal College for Women,
E-9 Anna nagar East,
Chennai 102*

Abstract

Gamification is the implementation of elements of gamification into a workforce environment to enable a game-like experience. A rising corpus of research and an increasing number of gamified apps demonstrate how gamification's popularity has grown over time. The methodology of improving services with (stimulating) opportunities to elicit game-like experiences and foster desired behavioral results is known as Gamification. Customary preparation projects can frequently be tedious and neglect to catch workers' consideration and interest One of the vital advantages of gamification in the working environment is its capacity to upgrade learning and improvement drives. Customary preparation projects can frequently be tedious and neglect to catch workers' consideration and interest. Additional benefits associated with employing gamification for employee

engagement involve enhancing social interaction and teamwork, generating real-time feedback, and making training and on boarding easier and more enjoyable. The article uncovers gaps in the collection of literature through investigating the state of the field's current research and finds out how Gamification creates impact over employee engagement and productivity. The current research has been designed with survey model and it focuses on the analysis of impact of Gamification on employee engagement and productivity.

Key Words: Employee engagement, Productivity, Gamification. Gamified work culture, Gamify, Employee motivation, Employee productivity

I.INTRODUCTION

What Gamification Is and How It Affects Employee Engagement?

Applying gaming concept designs and mechanics in the workplace to captivate and motivate staff members is known as gamification. It increases the enjoyment and engagement of tasks. Gamification increases employee engagement and productivity by giving them a sense of growth, acknowledgment, and fulfillment using elements like credentials, leaderboards, obstacles, and points in the process. and processes by utilizing the innate human desire for rewards, competition, and accomplishment.

Employee engagement and productivity is crucial for organization success. A key factor in any organization's success is employee engagement. Employees who are engaged are more dedicated, effective, and driven to support the objectives of the business. Additionally, they are more likely to stick with the company, which lowers turnover and draws in top talent.

Research indicates that motivated workers surpass disgruntled workers in terms of output, client contentment, and financial gain. Consequently, companies are always looking for new and creative ways to improve employee engagement, and gamification presents a strong option.

History of Gamification in workplace

Gamification originated in the 1970s when businesses, such as IBM, began incorporating games into their training programs to enhance the learning experience of employees. Nevertheless, it wasn't until the early 2010s that gamification became widely known, owing in large part to the development of mobile devices and technology. Since then, gamification has gained popularity among businesses in a variety of sectors as an effective strategy for increasing worker engagement, boosting output, and accomplishing organizational goals.

Employee engagement and productivity is crucial for organization success. A key factor in any organization's success is employee engagement. Employees who are engaged are more dedicated, effective, and driven to support the

objectives of the business. Additionally, they are more likely to stick with the company, which lowers turnover and draws in top talent.

Research indicates that motivated workers surpass disgruntled workers in terms of output, client contentment, and financial gain. Consequently, companies are always looking for new and creative ways to improve employee engagement, and gamification presents a strong option.

Gamification: Energizing Learning and Development

The possible use of gamification in the workplace to improve learning and development programs is one of its main advantages. Conventional training courses frequently lack intrigue and are boring, failing to hold employees' interest. Gamification makes learning more fun and memorable by introducing an interactive and engaging element. The incorporation of challenges, leaderboards, and quizzes encourages employees to take an active role in their own professional growth, which enhances learning outcomes.

Teamwork and collaboration are essential to the success of any organization. By giving workers, the chance to collaborate to achieve a common goal, gamification can be used as a tool to promote teamwork.

Employee camaraderie and healthy competition are promoted by gamification, which integrates team-based challenges, leaderboards, and rewards. This improves team performance overall and fortifies relationships as well.

The success of gamification initiatives is largely dependent on having well-defined goals and objectives. Employees are more inclined to actively participate and strive for success when they are aware of what is expected of them and how their performance will be evaluated.

Companies should make it obvious why they are implementing gamification efforts, indicate out their precise aims and objectives, and give employees the tools and assistance they need to reach them. In order to reinforce the desired behaviors and results, organizations should also make sure that the gamification experience is in line with their overall organizational strategy and values.

The planning and implementation of gamification projects have a significant impact on their success. Organizations must carefully consider the following components in order to create rewarding and engaging experiences:

To make the experience more engaging and relatable for employees, include stories and themes that speak to them.

Establish a healthy balance between challenging and reachable goals to maintain employee inspiration and foster a sense of accomplishment.

Objectives of the Study

1. To analyze how implementation of gamification in workplace promotes employee engagement.
2. To find out the impact factors of gamification that motivates the employees to work with engagement.
3. To examine how gamification improves productivity.

Scope of the Study

The scope of the study is to identify the impacting factors of gamification that enables the employees to work with complete engagement with results in increased productivity. The study was conducted to analyze and examine the influencing factors of gamification in employee engagement and productivity.

Limitations

- The research restricted only to the employees of corporate sectors belonging to sample area of Thoraipakkam, Chennai City.
- The responses have been restricted to five sectors namely finance and insurance, Banking, Health care service, educational sector and IT Sector.
- The Sample collected from employees is 155 responses which is limited.
- The results is based on the responses given by the employees of corporate which may be a biased or untrue response.

Review of Literature

The authors Miri Daniel and Janaica (2022) after analyzing various case studies under gamification exposed the practical implication in their research paper title “Gamification, motivation, and engagement at work: a qualitative multiple case study” that in order to encourage motivation and participation in the workplace, gamification must be planned and implemented with the proper score, feedback, and rewards. Because when gamification is used in isolation, it does not boost motivation and engagement, but must be connected to the organization's systems and procedures for continued success.

(Miri, D. H., & Macke, J. (2022). Gamification, motivation, and engagement at work: a qualitative multiple case study. *European business review*, 34(2), 263-276.)

Abdul and Zabair (2021) conducted the research titled “Gamification: A Tool to Enhance Employee Engagement and Performance” in which the authors examined and investigated on how gamification affects work performance and employee engagement among the employees of IT multinational corporations. Additionally, they also investigated how employee engagement mediates the link

between gamification and worker performance. Lastly, the authors investigated how gamification influences the relationship between worker engagement and worker performance in a moderating way. The Research demonstrates how crucial employee engagement is to reaping the rewards of gamification in improving worker performance.

(Basit, A., Hassan, Z., Omar, N., Sethumadavan, S., & Jhanjhi, N. Z. (2021). Gamification: A Tool To Enhance Employee Engagement And Performance. Turkish Online Journal of Qualitative Inquiry, 12(5)).

Research Methodology

- *Descriptive research design* has been selected for the current Study and sample design adopted for the study is *Random Sampling Technique*.
- *Data Collection* for the study has been collected from two sources of data ; *Primary data and secondary data*.
- Primary data has been collected through *questionnaire* and secondary data has been collected from *periodicals, journals and articles*.
- *Sample area* selected for the study is Thoraipakkam , Chennai City and *Sample size* is 155 respondents.

Data Analysis and Interpretation

Reliability Analysis

Table 1
showing the case processing summary.

	N	%
Cases Valid	30	100
Exclude	0	0
d(a)		
Total	30	100

Table 2
showing reliability statistics

Cronbach's Alpha	N of items
0.859	30

Interpretation

The acceptable range for Cronbach alpha is above 0.70. According to the above table of reliability statistics, the present study satisfies the acceptable range of Cronbach's alpha which is 0.859.

Percentage Analysis

Percentage analysis has been used for analyzing the demographic details of the respondents that has been collected through Questionnaire.

Table 3
showing percentage analysis

Particulars	Frequencies	Percentage	Valid Percentage	Cumulative Percentage
Age: Below 20 Yrs	42	27.10	27.10	27.10
21years - 30 years	22	14.19	14.19	41.29
31Years - 40 years	51	32.90	32.90	74.19
Above 40 Years	40	25.81	25.81	100.00
TOTAL	155	100.00	100.00	
Gender: Male	79	50.97	50.97	50.97
Female	76	49.03	49.03	100.00
TOTAL	155	100.00	100.00	
Marital Status -Married	94	60.65	60.65	60.65
Unmarried	61	39.35	39.35	100.00
TOTAL	155	100.00	100.00	
Occupation: Public sector	23	14.84	14.84	14.84
Private sector	132	85.16	85.16	100.00
TOTAL	155	100.00	100.00	
Sector Working				
Finance and Insurance	26	16.77	16.77	16.77
Banking	24	15.48	15.48	32.26
Health care and assistance	15	9.68	9.68	41.94
Information Technology	67	43.23	43.23	85.16
Educational Sector	22	14.19	14.19	99.35
Others	1	0.65	0.65	100.00
TOTAL	155	100.00	100.00	
Qualification				
Graduate	88	56.77	56.77	56.77
Postgraduate	28	18.06	18.06	74.84
Professional degree	20	12.90	12.90	87.74

Others	19	12.26	12.26	100.00
TOTAL	155	100.00	100.00	
Income Level				
Below 2 Lakhs	15	9.68	9.68	9.68
2-4 lakhs	14	9.03	9.03	18.71
5-7 lakhs	66	42.58	42.58	61.29
8-10 lakhs	51	32.90	32.90	94.19
above 10 lakhs.	9	5.81	5.81	100.00
TOTAL	155	100.00	100.00	

Interpretation

- 32.9% of the respondents belongs to age group of 31-40 Years.
- 50.97% of the respondents belongs to Male Category.
- 60.65% of the respondents are Married.
- 85.16 % of the respondents are private employees.
- 43.23% of the respondents are IT employees.
- 56.77% of respondents are Graduate.
- 42.58% of the respondents belongs to the income level of 5-7 lakhs per annum.

Chi Square Test

Relationship Between Income and Agreeability of Respondents on Gamification Factors that Lead to Work Engagement and Productivity-

Table 4

Results of Chi Square Test

Monthly Income	Agreeability of Respondents on Gamification Factors that Lead to Work Engagement and Productivity		Total
	Agree	Disagree	
Below 2 Lakhs	24	1	25
	17.02%	7.14%	16.10%
2-4 lakhs	29	3	32
	20.57%	21.43%	20.60%
5-7 lakhs	70	7	77
	49.65%	0.98%	49.7%
8-10 lakhs	15	2	17
	21.15%	14.29%	11.00%
above 10 lakhs.	3	1	4
	2.13%	7.14%	2.60%
Total	141	14	155
	100.00%	100.00%	100.00%

Interpretation

The table depicts that majority of the respondents (49.65 per cent) who belong to 5-7 Lakhs annual income category have agreed that Implementing gamification at work place has an impact on employee engagement and Productivity and majority of the respondents (21.43 per cent) who belong to 2-4 Lakhs income category have disagreed the fact that the gamification at work place has an impact on employee engagement and Productivity.

Table 5
Results of Chi-Square Test

Particulars	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.960	3	.117
Likelihood Ratio	7.130	3	.068
Linear-by-Linear Association	.564	1	.456
N of Valid Cases	155		

The above table interprets that, as per the chi-square results, 'p' value (.117) exceeds 0.05 and it is clear there is an **insignificant relationship** between income agreeability of respondents on gamification factors that lead to work engagement and productivity. So, we accept the Null hypothesis.

Kendall's 'W' Test of Mean Ranks

Gamification's Factors That Lead to Enhancement of Employees Engagement and Increased Production

The below **table 6** shows the Gamification's factors that leads to enhancement of employees' engagement and Increased production using Kendall's 'w' test of mean ranks.

Impacting Factors of Gamification that Leads to Increased Employee Engagement	Standard Deviation	Mean Rank	Rank
Increases / boost up Employee motivation at work	1.148	6.64	3
Creates stress free and comfortable working environment	1.19	6.04	6
Achieves more value from training and workshop	1.079	6.01	7
Leads to more collaboration with team and co-workers	0.965	6.4	5
Reduces depression and anxiety	1.275	5.98	8

Promotes creativity at work	1.301	5.4	9
Enhance mental health	1.085	7.46	1
Increases rapport with team members and co-workers	1.113	5.3	10
Develops team spirit among co-workers	1.028	6.67	2
Identifies strength and weakness of co workers	0.853	3.39	11
Helps in increasing productivity level of individual employees	1.045	6.51	4

Interpretation

According to the above table, implementing gamification at workplace can enhance mental health of the employees with the highest mean score of 7.49 and ranked 1. Develops team spirit among co-workers is the second impacting factor of gamification with highest mean score of 6.67, Increases / boost up Employee motivation at work is ranked 3 with the third highest mean score of 6.64, followed by Helps in increasing productivity level of individual employees (6.51), Leads to more collaboration with team and co-workers (6.4), Creates stress free and comfortable working environment (6.04), Achieves more value from training and workshop (6.01), Reduces depression and anxiety (5.98), Promotes creativity at work (5.4), Increases rapport with team members and co-workers (5.3), Identifies strength and weakness of coworkers (3.39) with the lowest Kendall's 'w' test of concordance mean ranks.

Gamification's Factors that Lead to Enhancement of Employees Engagement and Increased Production – Kendall's Coefficient of Concordance

H₀: There is no significant agreement among the employees in ranking the impacting factors of gamification that lead to employee engagement / Increased productivity.

The below **table 7** shows kendall's coefficient of concordance gamification's factors that lead to enhancement of employees' engagement and increased production

N	155
Kendall's W	.127
Chi-Square	631.889
df	10
Asymp. Sig.	.000

Interpretation:

It is clearly understood that the coefficient of concordance - Kendall's W value is 0.127 which explains that there is a **significant agreement** among the employees in ranking the Gamification factors having impact over their employee engagement and productivity. The Null hypothesis is rejected as it is statistically significant, and the p value (0.000) does not exceed 0.05.

So, we conclude there exists a similarity between the impacting factors of gamification and employee engagement / Productivity.

II.CONCLUSIONS

Employees anticipate that gaming will help them alleviate stress, minimize the stress of their jobs, become more energetic, and improve their state of mind. Research indicates that there is a positive correlation between gamification and employee engagement. This implies that using gamification strategies in corporate sector will lead to an increase in employee engagement and productivity. The various component of employee engagement and gamification factors have been found to be significantly correlated. The findings indicate that there is a meaningful connection between engagement, productivity, and gamification. The conclusion is that the alignment factor of gamification and employee engagement have a substantial link. The development factor of gamification and employee engagement was found to be significantly correlated.

III.REFERENCES

1. Miri, D. H., & Macke, J. (2022). Gamification, motivation, and engagement at work: a qualitative multiple case study. *European business review*, 34(2), 263-276.
2. Girdauskiene, L., Ausrine Ciplyte, E., & Navickas, V. (2022). Gamification as an innovative instrument for employee engagement. *Marketing i menedžment inovacij*, (1), 10-17.
3. Basit, A., Hassan, Z., Omar, N., Sethumadavan, S., & Jhanjhi, N. Z. (2021). Gamification: A Tool To Enhance Employee Engagement And Performance. *Turkish Online Journal of Qualitative Inquiry*, 12(5).
4. Hammedi, W., Leclercq, T., Poncin, I., & Alkire, L. (2021). Uncovering the dark side of gamification at work: Impacts on engagement and well-being. *Journal of Business Research*, 122, 256-269.
5. Gryaznova, S. (2019). Gamification in employee engagement.
6. Alsawaier, R. S. (2018). The effect of gamification on motivation and engagement. *The International Journal of Information and Learning Technology*, 35(1), 56-79.

7. Ėrgle, D., & Ludviga, I. (2018, September). Use of gamification in human resource management: impact on engagement and satisfaction. In 10th International Scientific Conference "Business and Management (pp. 409-417).
8. da Rocha Seixas, L., Gomes, A. S., & de Melo Filho, I. J. (2016). Effectiveness of gamification in the engagement of students. *Computers in Human Behavior*, 58, 48-63.
9. Ergle, D. (2015). Fostering Employee Engagement Through Gamification: AirBaltic Forecaster Tool. *Management* (18544223), 10(3).
10. Kumar, H., & Raghavendran, S. (2015). Gamification, the finer art: fostering creativity and employee engagement. *Journal of Business Strategy*, 36(6), 3-12.
11. Pandita, D., Bedarkar, M., Agarwal, R., & Saini, R. (2017). Digitalizing human resources through gamification for employee engagement.
12. Ong, M. (2013). Gamification and its effect on employee engagement and performance in a perceptual diagnosis task.
13. Biloch, A., & Löfstedt, A. (2013). Gamification and performance management: A tool for driving competitiveness through employee Engagement.