

Proceeding Paper

Measuring the Effect of Consumer Brand Engagement on Brand-Related Outcomes in Gamified Mobile Apps: A Solicitation of Technology Acceptance Model[†]

Mandakini Paruthi^{1,*}, Razia Nagina² and Gaurav Gupta³

¹ School of Management Studies, Chaitanya Bharathi Institute of Technology, Hyderabad 500075, India

² Mittal School of Business, Lovely Professional University, Phagwara 144001, India

³ Amity Business School, Amity University, Greater Noida 201306, India

* Correspondence: paruthi.mandakini@gmail.com

† Presented at the Digital Transformation in Business: Challenges and New Opportunities, West Mishref, Kuwait, 17 November 2022.

Abstract: The present study investigates the role of gamification in fostering consumer engagement wherein consumer brand engagement construct has been viewed as a multidimensional construct embracing conscious attention, affection, participation and social connection dimensions in mobile apps settings. Brand related outcome-brand loyalty was also proposed as an outcome variable. Built upon Technology Acceptance Model (TAM), a conceptual model has been proposed which has included perceived usefulness and perceived ease of use as antecedents of consumer brand engagement in gamified mobile applications settings. Furthermore, the study also explored how consumer brand engagement drives users' behavioral intention to use gamified mobile apps. The results revealed that gamified marketing activities integrated on mobile apps drives consumer brand engagement which in turn found to be positively related with user's behavioral intention to use gamified mobile apps.

Keywords: consumer engagement; gamified mobile apps; multidimensional model; TAM



Citation: Paruthi, M.; Nagina, R.; Gupta, G. Measuring the Effect of Consumer Brand Engagement on Brand-Related Outcomes in Gamified Mobile Apps: A Solicitation of Technology Acceptance Model. *Proceedings* **2023**, *85*, 10. <https://doi.org/10.3390/proceedings2023085010>

Academic Editor: Marcelle de la Roche

Published: 7 March 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Objectives

The present study examines the role of gamification in fostering consumer engagement wherein the consumer engagement construct has been viewed as a multidimensional construct encompassing conscious attention, affection, enthused participation, and social connection as its dimensions in gamified mobile applications [1–3]. Brand-related outcomes, behavioral intention to use, and brand loyalty were also proposed as outcome variables [4]. Built upon the technology acceptance model (TAM), a conceptual model has been proposed. The conceptual model includes perceived usefulness and perceived ease of use as precursors of consumer engagement in a gamified mobile applications context.

2. Methodology

Furthermore, the study also explores how consumer engagement drives users' behavioral intention to use gamified mobile apps. An online survey was used to collect the data. Data were sourced from 200 respondents, and structural equation modeling (SEM) was employed to analyze the collected data. Confirmatory factor analysis (CFA) through IBM AMOS 22.0 (IBM, New York, NY, USA) was employed to assess the reliability and validity of the scale items. Furthermore, the structural model was also assessed to establish model fit and to check the proposed hypotheses also.

3. Results

The overall model fit was satisfactory with a 1307.783 Chi-Square (χ^2) value, $df = 580$, $\chi^2/df = 2.255$, compare fit index (CFI) = 0.875, Tucker–Lewis index (TLI) = 0.864, and

root mean square error approximation (RMSEA) = 0.079. All items are loaded on the measurement model. After measurement model fit, the construct's reliability and validity measures were also assessed. The construct reliability (CR) was also measured, and values were found to be more than the threshold of 0.7 [5]. The results confirmed no reliability and validity concerns. After this, the proposed conceptual model and hypotheses were tested via the structural model. Overall, model statistics show that the model fit indices (SRMR 0.0631, CFI = 0.886, NFI = 0.809) are satisfactory. The structural model is statistically significant. Perceived usefulness impacts consumer engagement ($p < 0.01$); perceived ease of use also influences consumer engagement ($p < 0.05$), and consumer engagement positively influences the behavioral intention to use ($p < 0.01$). However, consumer engagement does not statistically influence brand loyalty.

4. Implications

The results revealed that gamified marketing activities integrated into mobile apps drive consumer engagement, which in turn was found to be positively related to users' behavioral intention to use gamified mobile apps.

5. Originality Value

The study is the first of its kind that has applied the technology acceptance model (TAM) in gamified mobile settings and studied the influence of consumer engagement on behavioral-related outcomes.

6. Contribution

This paper offers valuable implications for multinational companies which are in the business of developing applications. The study helps in identifying the precursors of driving engagement among users in gamified settings and, subsequently, its effect on brand-related outcomes [6]. Perceived usefulness and perceived ease of use positively influence consumer engagement and, in turn, consumer engagement influences the behavioral intention to use.

Author Contributions: Conceptualization, M.P., R.N. and G.G.; methodology, M.P., G.G. and R.N., writing—original draft preparation, M.P.; writing—review and editing, G.G.; visualization, G.G.; supervision, M.P.; project administration, R.N. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Kamboj, S.; Rana, S.; Drave, V.A. Factors driving consumer engagement and intentions with gamification of mobile apps. *J. Electron. Commer. Organ. JECO* **2020**, *18*, 17–35. [[CrossRef](#)]
2. Kaur, H.; Paruthi, M.; Islam, J.; Hollebeek, L.D. The role of brand community identification and reward on consumer brand engagement and brand loyalty in virtual brand communities. *Telemat. Inform.* **2020**, *46*, 101321. [[CrossRef](#)]
3. Paruthi, M.; Kaur, H. Scale development and validation for measuring online engagement. *J. Internet Commer.* **2017**, *16*, 127–147. [[CrossRef](#)]
4. Behl, A.; Sheorey, P.; Pal, A.; Veetil, A.K.V.; Singh, S.R. Gamification in E-commerce: A comprehensive review of literature. *J. Electron. Commer. Organ. JECO* **2020**, *18*, 1–16. [[CrossRef](#)]

5. Hair, J.F.; Anderson, R.E.; Tatham, R.L.; Black, W.C. *Multivariate Data Analysis*, 5th ed.; Prentice-Hall: Hoboken, NJ, USA, 1998.
6. Islam, J.U.; Rahman, Z. The impact of online brand community characteristics on customer engagement: An application of Stimulus-Organism-Response paradigm. *Telemat. Inform.* **2017**, *34*, 96–109. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.