

Name of Publisher: BRIGHT EDUCATION RESEARCH SOLUTIONS

Area of Publication: Business, Management and Accounting (miscellaneous)



Journal of Management & Social Science

ISSN Online: 3006-4848

ISSN Print: 3006-483X

<https://rjmss.com/index.php/7/about>

RECOGNIZED IN "Y"
CATEGORY BY



[The Role of Gamification, Enjoyment, and Playfulness in Enhancing Customer Engagement and Psychological Wellbeing]

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Review Type: Double Blind Peer Review

ABSTRACT

The present study adds to the literature on Stimulus Organism Response Model by introducing novel relationships among variables like gamification enjoyment, playfulness, customer engagement and psychological wellbeing. Gamification Enjoyment plays a direct influential role on Customer Engagement which has an impact on psychological wellbeing of customers. On the other hand, Playfulness moderates the relationship between Gamification Enjoyment and Customer Engagement positively. The playfulness has strategic significance for present day business. The gamification works as stimulus and affect customers (organism) and response generated in shape of customer engagement. Consumer culture theory also explains relationships in the present study model as a complementary theory. The study outcomes have significance for businesses and marketers who can engage customer and obtain desirable customer behaviors by including gamification as a strategy to engage customers online. The outcome of psychological wellbeing can keep customers contented, engaged and loyal in the long run. Quantitative study, i.e. survey method was used and a self-administered questionnaire was used. The study items were adapted from past studies. The future studies may use gamification to assess actual consumer behavior for exhibition of their actual inner happiness and joy or need for fun. Future studies may evaluate mediation role of customer engagement between gamification joy and customer psychological wellbeing. Present study used convenience sampling technique and study respondents were users of the gamification app easily identified and approached for survey at review sections. The present study used Smart PLS software for statistical analysis.

Keywords: gamification, playfulness, customer engagement and psychological wellbeing.

Introduction

The extant literature has revealed that the Perma+4 model have factors including classical perma (positive emotion, engagement, relationships, meaning, accomplishment) and additional factors like Physical Health, Mindset, Work Environment, and Economic Security for employee work-related wellbeing. Whereas, the customer wellbeing is derived through various constructs but the customer engagement is a desirable factor for businesses, but not a factor of customer wellbeing (Hollebeek c& Belk, 2021a; Katiliute, 2023; Prentice et al., 2023). Whereas, customer engagement through various social media and digital platforms might improve customer well-being by educating them to the benefits and facilitating them towards positive emotion, relationships, meaning, accomplishment, physical health, mindset, environment, and economic security.

In contrast to the above-described factors of the Perma+4 model, Busalim et al. (2023) found mediation role of customer engagement in relationships of behavioral intentions not actual behavior and recommended for alteration of these intentions into behavioral outcomes such as of brand loyalty or brand performance. Donaldson et al. (2022) used Perma model and extended it by adding four elements, such as physical health, mindset, environment, and economic security, into the Perma Wellbeing Measure, but it was intended towards organizational wellbeing. The study suggested measuring these elements of well-being through objective-based understanding including medical

intervention and psychological theories. However, the present study is inclined towards well-being of customers and their engagement with the brand. Previously wellbeing was measured through psychological capital and satisfaction, then Perma model changed it with positive emotions, relationships, Meaning, and accomplishment. Donaldson et al. (2022) suggested to measure wellbeing of an individual through actual behavior of the individual and outcomes like voice, physical gestures, postures expression etc. whereas these indications are used in medical science for assessment of mental health.

Considering the contemporary developments, AI is suggested to be the tool of assessing psychological wellbeing and making needed interventions like AI based Coaching after learning to the need through analysis by chatbots (Hiller et al., 2025). Likewise, Hollebeek et al. (2023) also suggested to use technology-based tools for customer engagement like gamification applications for fun, playfulness and enjoyment so that individuals stress is lessened through customer engagement. The workplace wellbeing and positive psychology have been extended through the PERMA+4 model for better organizational internal performance, employee wellbeing (Donaldson et al., 2021, 2022) but such endeavors for customer wellbeing is missing. The present study intends to fulfill the research gap through frameworks of customer digital media engagement for maximization of well-being (Barari et al., 2021; de Oliveira Santini et al., 2020; Vinerean & Opreana, 2021).

Theoretically, the literature on stimulus organizational response will be extended, to digital consumer engagement and customer welfare for influence on consumer behavior and well-being (Murshed & Ugurlu, 2023). Practically, the research will be helpful in relieving the technology related stress at contemporary platforms of customer engagement benefitting customer wellbeing.

Objectives of the Study

The study objectives are described below:

1. Investigate customer engagement through technology applications and its impact on consumer wellbeing.
2. Investigate the predictors of customer engagement through technology applications and develop a positivist framework using SOR Theory.

These research objectives are assessed through SOR theory. In the context of customer engagement, gamification of joy plays works as a stimulus and the organism is customers who are effected by the stimulus and its environmental influence is experienced through playfulness which result in customer engagement. Furthermore, the complementary theory of consumer culture theory explains psychological well-being in the model.

Literature Review

The social media has altered the techniques of brand engagement and consumer well-being has become a critical contemporary issue, as the digital interactions have been subject to decline in overall consumer wellbeing (Nunkoo et al., 2025). Therefore, the present study is directed towards contributing to the existing knowledge and understanding customer's behavior and factors responsible for consumer wellbeing (Kasmani et al., 2022). In this respect the theory establishing foundation of the study and underpinning is stimulus organism response model which ordains that the responses of individuals will be stimulated through the triggering of emotions. The stimuli are

generated from the external environment that affects the internal psychological state of a person, called the organism aspect of the theory. Resultantly, the behavioural response (R) is generated and initiated from the individual (Guleria et al., 2024). The personal experience of individuals from these environmental stimuli has an indirect influence on their behaviour as evident from past studies (Sattarapu et al., 2024). The model was initiated by Mehrabian and Russell (1974) conducted research revealing that generally satisfaction, as a constituent of the organism in an environment, plays a progressive role in getting responses, like intentions to repurchase and WOM recommendations. Hence, it is found by various authors in different settings that behavioural intentions are the outcome of the SOR theory called response (Balakrishnan & Dwivedi, 2024; Guleria et al., 2024; Ltifi, 2023). The aforementioned research model of the present study is a perfect example of SOR theory explanation and expansion of literature. In the context of customer engagement strategies, gamification joy plays the role of a stimulus and the organism, here individual, as the customer, gets affected, and its environmental role is observed by playfulness, which results in customer engagement as a behavioral display and response. Furthermore, the complementary theory of consumer culture theory explains psychological well-being in the model.

The extant literature though has emphasized on customer engagement through contemporary technology's like social media but customer wellbeing has remained subject of contrasting opinion of psychological research studies, and some of the studies also established that it might also undermine customer wellbeing due to concerns of privacy, hazardous productions, misinformation, deceptive consumption and unrealistic beauty standards, This is suggested to continuously monitor the content on social media related to brand values, and ensure trustworthiness for sustainable marketing. Therefore, the customer brand engagement through contemporary social media should be carefully considered for wellbeing of the customer and the classical employee wellbeing models of Saligman and Dolandson should be extended to customer wellbeing for sustainable performance and customer engagement in the long run (Ekinci et al., 2025; Inam et al., 2023; F. A. Khan et al., 2024; S. A. R. Khan et al., 2023, 2025; S. A. R. Khan, Sheikh, et al., 2024; S. A. R. Khan, Tahir, et al., 2024; Rehman Khan et al., 2022; Sheikh et al., 2017, 2024; Zhang et al., 2024a, 2024b). Donaldson et al. (2022) suggested to measure the wellbeing of an individual through actual behavior of the individual and outcomes like voice, physical gestures, postures expressions etc. whereas these indications are used in medical science for the assessment of mental health. Considering the contemporary developments, AI is suggested to be the tool of assessing psychological wellbeing and making needed interventions like AI based Coaching after learning to the need through analysis by chatbots (Hiller et al., 2025). Likewise, Hollebeek et al. (2023) also suggested to use technology based tools for customer engagement like gamification applications for fun, playfulness and enjoyment so that individuals stress is lessened through customer engagement.

Gamification Enjoyment

The marketers are confronted with challenges of customer's disinterest in their brands due to engagement on other activities of enjoyment on contemporary social media and they want to engage them with the brand through various strategies (Abdul Latiff et al.,

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2024; Nugroho, 2024). Gamification enjoyment is one of them. The issue of technology anxiety, and fun seeking customers is taking traction in the literature. The lack of enjoyment associated with online presence on social media results in disengagement of customers which is quite worrisome state of affairs for businesses (Obaid & Farooq, 2024; Venturini, 2025). The competitive world has been shifted to fun seeking customers for better engagement and growth. Therefore, gamification has become a great source of customer engagement. Only the innovative in competitive arena can survive for long (Dewi et al., 2024; Pradesh et al., 2024). The extant literature has established that gamification enjoyment is an effective tool of psychological and social transformation that not only generates intrinsic motivation and engagement but also excitement with a brand or interaction forum and participation of the users (Li et al., 2024; Lim et al., 2024). Above in view following hypotheses have been proposed;

H1: Gamification enjoyment has significant impact on Customer Engagement

Customer engagement through social media (CESM)

In the contemporary digital age, customer engagement has been stretched beyond merely interactions at business places and shifted mostly on digital platforms and social media. Forums of online discussions, and brand advocacy have emerged. It is strategically significant to comprehend engagement predictors for lasting customer relationships (Khattak & Yousaf, 2022). In present study gamification enjoyment is considered as effective engagement generating factor. Customer engagement refers to the depth of a customer's interaction with a product or brand (Erwin et al., 2023). The customer engagement result in their investment of resources in interactions with a brand or firm, such as time, effort, and attention. Consumer brand engagement can be built on various forums like social media platforms, and AI-based applications for gamification (Akdim et al., 2023).

The customer engagement becomes robust through recurrent interactions, and it indicate customer's psychological, emotional, and physical involvement in the brand (Palazón et al., 2015). Social media enables consumers to express opinions and effect brand development (Samarah et al., 2022). It plays a significant role in enhancing customer engagement by creating interactive platforms for in and out communication among customers and brand firms. Therefore, social media and gamification could be essential party of strategy making (Hamzah & Johari, 2023). The expressive emotions on gamification apps are used by businesses as customer area of interests which help in product improvement and new product development (Pandrianto & Sukendro, 2018). Reactions, votes, saves, and chats are additional measures that some research use to gauge participation (Piatak & Mikkelsen, 2021). Customer engagement through gamification can offers benefits like increased brand loyalty, satisfaction, and perceptions into customer behavior. However, organizations should pay heed to ethical concerns, like data privacy and security, for responsible and respectful engagement (Xing et al., 2022).

Psychological Wellbeing

The customer engagement on well planned gamification app has potential to address issues of psychology and reduce stress of users and customers (Kusumawardani & Soegihono, 2024; Raza et al., 2024). These are efficient methods to educate, engage and

ensure welfare of customers. Wellbeing is the central concept in positive psychology literature (Singha & Singha, 2024). It is positively related with sense of good-self, adaptability to life contests, and self-awareness of own strengths and personality make up (Singha & Singha, 2024). All this constitute a productive member of a community. In relation to the brand engagement and organization relationship, the psychological wellbeing of customer has been a matter of concern due to immersive experiences and addictive engagement (Sattar et al., 2024).

H2: Customer engagement through gamification has significant impact on psychological Wellbeing.

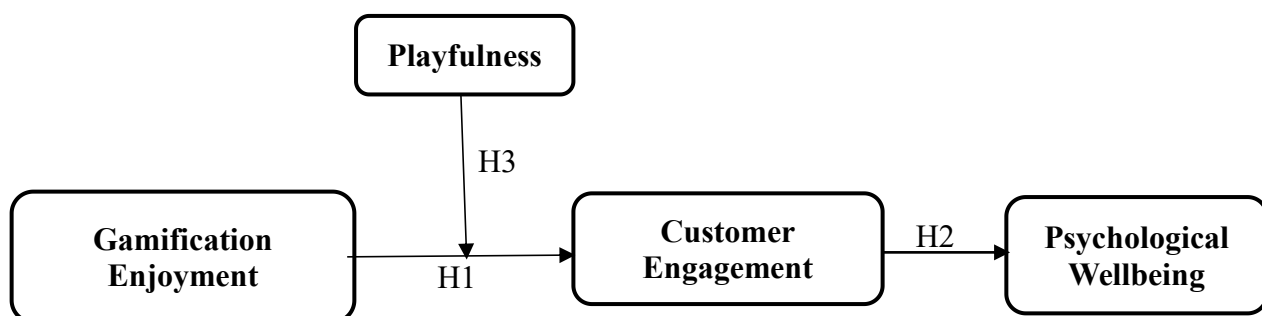
Playfulness

Capitalizing upon these recommendations the present study has used playfulness through gamification activities to not only engage customer with the brand but also enhance their psychological wellbeing by reducing stress (Proyer & Inclusion, 2025). Stress reduction is intrinsic and inner factor in our study model. The playfulness works as strong motivation for fun and it generates behaviors of motivation for fun, spontaneity and initiative that ultimately affect psychological state of a person(X. S. Shen et al., 2014). Playfulness attitude is manifested by an individual bodily gestures thorough which he or she can bring fun enjoyment and humor, This attitude realized the hidden potentials in an individual and creativity (Spiers, 2024). The research on playfulness is expanding related to employee engagement and creativity however, the same context can be enhanced for customer engagement and activity so that the customers can fulfill their wants and enhance thier satisfaction and wellbeing (Tăbîrță et al., 2024). Playfulness traits of an individual enable him or her to alter the conditions and taking first mover advantages and become open to experience. The person becomes flexible and adapted who can be subject to playful engagement for joy and quality experience (X. Shen & Crawley, 2024).

H3: Playfulness moderates the relationship between Gamification Enjoyment and Customer Engagement.

Research Framework

Based on above mentioned hypotheses, following research framework is proposed;



Research Methodology

The present study used quantitative technique to analyze aforementioned study relationships. Survey method was used. The items were adapted from past studies. For example Scale of playfulness was adapted from the study by (X. S. Shen et al., 2014) and items were added to the study questionnaire like *I think play is a very important part in life. I try to have fun in all activities on this platform. I appreciate fun things initiated by others. I*

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often do unplanned things; I often act upon my impulses. I like to play in my mind. I often do playful things when I am by myself. I often do playful things when I am with other people.

The scale of psychological wellbeing was adopted from works of Diener et al. (2009) and elef (2013). The items are based on important elements as per positive relationships, competence, and meaningful / purposeful life. For example, the items include; *I lead a purposeful and meaningful life. My social relationships are supportive and rewarding. I am engaged and interested in my daily activities. I actively contribute to the happiness and well-being of others. I am competent and capable in the activities that are important to me. I am a good person and live a good life. I am optimistic about my future. People respect me.*

Whereas, scale of customer engagement was adapted from the study of Busalim et al. (2023). for instance, items were articulated as, *“When I am interacting with the AI gamification app, I get carried away.” “I spend my time for thinking about the AI based gamification app.”* etc. Similarly, the study items for enjoyment were adopted from works of Botes et al. (2021) for enjoyment items such as *I enjoy learning through gamification.*

Sample of Population and Sample Size

Non probability Convenience sampling method was used for the study and study respondents were selected who were users of the gamification app. App review section easily identified such respondents in a bulk and great number. The convenience sampling method was applied to recruit them for incentive coupon, on discounted price upto ten percent for shopping at a reputed online shopping market. For data analysis smart PLS -4 is used on a sample size of 375 responses which were selected after filtering incomplete entries. It is a cross sectional study using primary data gathered from study respondents directly.

Data Analysis

The data analysis has been performed through smart PLS-4 wherein PLS structural equation modeling was executed. The study reliability and validity was checked through HTMT table and Chronbach's alpha, Composite Reliability and Average Variance Extracted as described in the tables below;

Table 4.1 Construct Reliability And Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Customer Engagement	0.802	0.807	0.884	0.717
Gamification Enjoyment	0.873	0.875	0.908	0.663
Playfulness	0.863	0.872	0.902	0.648
Psychological Wellbeing	0.852	0.866	0.900	0.692

Table 4.2 Heterotrait-Monotrait Ratio (HTMT) - Matrix

	Customer Engagement	Gamification Enjoyment	Playfulness	Psychological Wellbeing
Customer Engagement				
Gamification Enjoyment	0.873			
Playfulness	0.823	0.851		
Psychological Wellbeing	0.721	0.647	0.756	

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Playfulness x Gamification

Enjoyment	0.489	0.635	0.610	0.359
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Above described statistics including Cronbach's alpha, composite reliability and Average variance extracted (AVE) lies within the prescribed threshold limit so study results have no issue of reliability and validity.

Figure 4.1 Structural Model

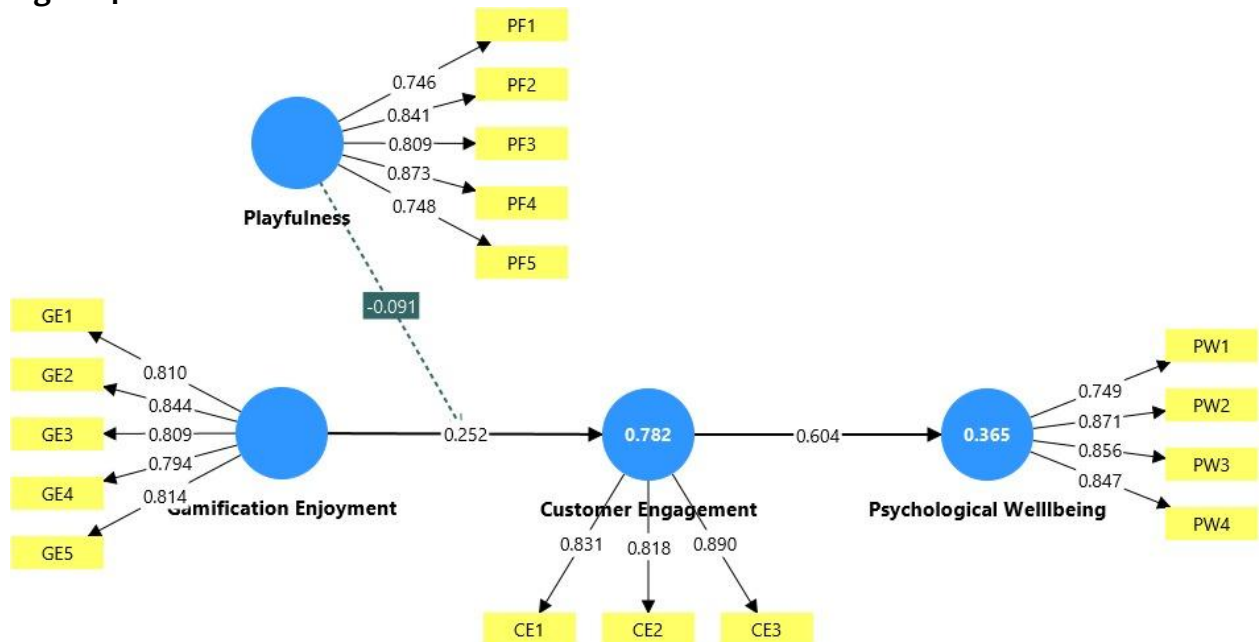


Figure 4.1 represents graphical representation of the reliable and valid results. Whereas, path coefficients and corresponding diagram are presented in the following.

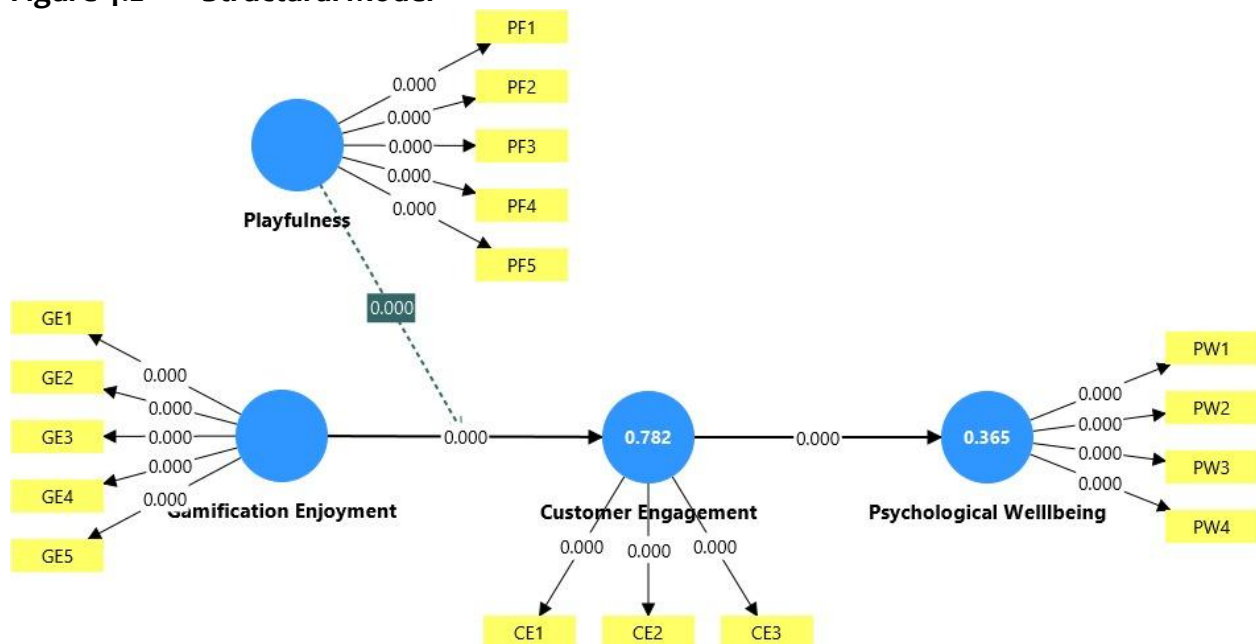
Table 4.3 Path coefficients (Mean, STDEV, T values, p values)

			Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
H1	Gamification Enjoyment	->					
	Customer Engagement		0.252	0.251	0.046	5.442	0.000
H2	Customer Engagement	->					
	Psychological Wellbeing		0.604	0.606	0.031	19.550	0.000
H3	Playfulness	x					
	Gamification Enjoyment	->					
	Customer Engagement		-0.091	-0.090	0.024	3.813	0.000

Outcomes in table 4.2 related to path coefficient reveal that all the study hypotheses are proven and the proposed relationships are found significant. It is deduced through above relationships that gamification enjoyment is the factor that industry should consider for

success online.

Figure 4.2 Structural Model



Discussions

As per results in the preceding section, it has been established that the Gamification Enjoyment plays a direct influential role on Customer Engagement which has impact on psychological wellbeing. Whereas, the Playfulness moderates the relationship between Gamification Enjoyment and Customer Engagement positively. Despite novelty of the framework, study relationships in theory are in line with the existing research studies. For instance Busalim et al. (2023) established mediation role of customer engagement in relationships with behavioral intentions not actual behavior. It recommended for alteration of these intentions into behavioral outcomes such as of brand loyalty or brand performance. Donaldson et al. (2022) used Perma model for wellbeing measure. The playfulness has been accepted as a strategic maneuver by the academia and used by business for the same purpose (Singh et al., 2024; Yang, 2024).

Research Implications and Future Recommendations

Theoretically, as per study outcomes in the preceding section, the cognition is obvious through Stimulus Organism Response model that gamification works as stimulus and affect customers in shape of organism and response generated by playfulness moderator variable as customer engagement in the model is a novel conceptual outcome of the present study (Nguyen Huu et al., 2023). Furthermore, the ultimate function of psychological wellbeing is addressed by complementary consumer culture theory in the present study model. Mostly the implication of this psychological research is benefited for mental health related field and especially mental wellness is considered (Wong et al., 2024). The present study extended theory of stimulus organism response and consumer culture theory. Various e-commerce and online business related customer behavior related study has used S-O-R model (Klein & Martinez, 2022; Ryan et al., 2024). Our study has extended theory of SOR by inclusion of playfulness as moderator between gamification enjoyment and customer engagement.

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Businesses and marketers are benefitted from this research who can engage customer and obtain desirable customer behaviors by including gamification as a strategy to engage customers online and they can also work on psychological wellbeing of their customers so that the customers remain contented, engaged and loyal for long. The gamification can be used by future studies to assess consumer behavior in shape of their real-self wherein they exhibit actual inner happiness and joy or need for fun. Future studies may evaluate mediation role of customer engagement between gamification joy and customer psychological wellbeing. Study model can be enhanced and specific targeted sampling techniques can be used for particular population. Longitudinal study is recommended for more consistent results.

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