

The impact of gamified loyalty programmes on customer engagement behaviours. A hotel industry application

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Structured abstract

Purpose: This paper examines the differential effects of gamified loyalty programmes and conventional loyalty programmes on customer engagement behaviours.

Design/methodology/approach: A 2 x 2 x 2 experiment was conducted that manipulated gamification (gamified vs. non-gamified), reward levels (high vs. low) and reward type (economic vs. social). Data collected from a sample of 315 individuals were analysed through PLS and tests of means.

Findings: Gamification can improve the attractiveness of loyalty programmes by influencing perceptions of playfulness and reward satisfaction. In fact, gamification lowers the importance that customers attach to reward levels. As a result, customers perceive higher hedonic and utilitarian value, which positively influences their engagement behaviours.

Originality: This study is one of the first to attempt to empirically analyse whether incorporating gamification into loyalty programmes influences customer engagement behaviours in the hospitality context.

Keywords: gamification; loyalty programme; customer engagement; hotel industry

1. Introduction

In service industries, gamification –a form of motivational design that applies elements and mechanics common in games to non-game contexts– has recently emerged as a means of enhancing services through gameful experiences within the value creation process (Koivisto and Hamari, 2019). A service industry that is particularly benefiting from gamification is tourism and hospitality (Pasca *et al.*, 2021). In this context, gamification has shown great potential to support sustainable tourism (Aguar-Castillo *et al.*, 2023), engage visitors (Jang and Kim, 2022), stimulate purchasing behaviours (Shi *et al.*, 2022) and promote travel-related user-generated content (Bravo *et al.*, 2021; Moro and Stellacci, 2023). A question that is gaining attention is whether gamification enhances the effectiveness of conventional loyalty programmes (Hollebeek *et al.*, 2021).

Loyalty programmes are a marketing tool “*designed to build customer loyalty by providing incentives to profitable customers*” (Yi and Jeon, 2003: 230). These incentives can be either tangible (e.g., discounts) or intangible (e.g., personalised service) (Chen *et al.*, 2021). The tool is commonly used by hotels because it maintains customer relationships, increases sales, improves profitability and creates value (Chen *et al.*, 2021; Rita *et al.*, 2023). Nonetheless, despite the multiple benefits provided by loyalty programmes, some voices have recently questioned their effectiveness because most customers fail to participate in them (Meyer-Waarden *et al.*, 2023).

Gamification, by providing intrinsic and extrinsic incentives that may encourage customers to use loyalty programmes, has emerged as a potential way of increasing the effectiveness of the programmes (Bitrián *et al.*, 2022; Hwang and Choi, 2020).

However, a key research gap that needs to be addressed empirically is whether gamified loyalty programmes are, indeed, more effective than conventional loyalty programmes in terms of creating customer engagement. Recently, Hollebeek *et al.* (2021: 1) noted

that “*despite this growing trend in marketing practice, academic insight into gamified loyalty programmes’ nature, dynamics, and effectiveness lags behind*”, and Lim *et al.* (2022: 453) that “*although the concept of gamification holds immense potential for customer engagement, the breadth and depth of related literature remain scant*”. Thus, while customers have been observed to exhibit engagement behaviours, expressed through direct and indirect contributions to brands, a gap exists in relation to which engagement behaviours are most affected by gamified loyalty programmes.

To bridge these gaps, the present study proposes and tests a model to analyse the impact of hotel loyalty programmes on customer engagement behaviours, and whether including gamification in the programmes makes any difference to their effectiveness.

By taking this approach, this work contributes to the gamification literature by examining a major under-researched area, gamified loyalty programmes, more specifically, in the hospitality industry. To the best of the authors’ knowledge, except for Hwang and Choi (2020), who analysed a gamified loyalty programme operated by a restaurant, no study has empirically analysed gamified loyalty programmes in the hospitality context. As gamification may not work equally well in every setting, it is also important to analyse gamified loyalty programmes operated by hotels. By incorporating game elements, such as points and badges, hotels can add an element of fun to the loyalty programme experience (Parapanos and Michopoulou, 2023), which might encourage members to engage with the programme. Specifically, this study contributes to the extant literature by empirically testing the specific customer engagement behaviours examined by Pansari and Kumar (2017) in the context of gamified loyalty programmes, differentiating between transactional and non-transactional engagement behaviours, in an approach that has recently attracted the

attention of many researchers (e.g., Bravo *et al.*, 2021; Carlson *et al.*, 2019; Itani *et al.*, 2020).

2. Conceptual framework and model development

Building on the extant gamification, loyalty programme and customer engagement literature, in this study a framework (see Figure 1) is proposed that examines the processes through which customers' perceptions of a hotel's loyalty programme and services enhance their perceptions of the hotel's utilitarian and hedonic values and, consequently, motivate them to take part in engagement behaviours towards the hotel brand, and the role that gamification plays within these customer engagement formation processes.

Figure 1 about here

2.1. Customer perceptions of hotels' loyalty programmes and service

Customers motivations to use a loyalty programme may come from two sources, intrinsic and extrinsic. Intrinsic motivation is based on whether the programme is enjoyable and playful, whereas extrinsic motivation is based on whether customers can obtain some separable outcomes, such as rewards. In the present study, the playfulness of the gamified platform is defined as "*the degree to which customers find the interaction with the gamified platform intrinsically interesting*" (Moon and Kim, 2001: 220), whereas reward satisfaction is understood to relate to the degree to which customers value the rewards offered (Högberg *et al.*, 2019), which is considered to be an extrinsic motivation.

Both the intrinsic and extrinsic benefits of a hotel's loyalty programme can enhance customers' value perceptions of the brand; these may entail functional benefits (utilitarian value) or relate to pleasure and inner feelings (hedonic value). Utilitarian

value can be conceptualised as the functional value derived from a purchasing action, whereas hedonic value relates to the fun and playfulness directly experienced from a purchasing action (Dedeoglu *et al.*, 2018). As Kamboj *et al.* (2022) indicated, the utilitarian value of a hotel is based on a comprehensive assessment of its functional advantages, such as value for money, whereas the hedonic value of a hotel is based on a comprehensive assessment of subjective experiences, such as entertainment and pleasure.

Previous studies have suggested that the perceived playfulness of loyalty programmes may have a positive impact on customers' attitudes and behaviours. As aforementioned, playfulness acts as an intrinsic motivator (Moon and Kim, 2001) that drives positive customer attitudes, higher participation in loyalty programmes (Hwang and Choi, 2020) and desired behaviours, such as recommendation and revisit intentions (Lee and Lu, 2023). Specifically, hotel loyalty programmes that incorporate playful techniques can generate a feeling of anticipation and enjoyment, thereby enhancing customers' perceptions of the hotel's hedonic value. In addition, playfulness may enhance customers' perceptions of the utilitarian value of hotels by providing a more engaging experience that increases their perceptions of value for money.

Similarly, customer satisfaction with the rewards offered in loyalty programmes drives intention to engage in future activities (Högberg *et al.*, 2019). Moreover, rewards positively reinforce behaviour and increase loyalty towards (Lee *et al.*, 2015), and engagement with (Meyer-Waarden *et al.*, 2023), programmes, as well as customers' value perceptions (Yi and Jeon, 2003). Thus, it is reasonable to conclude that introducing gamification into loyalty programmes might also improve customers' perceptions of a hotel's value by increasing their sense they are getting their money's worth. Therefore, it is hypothesised that:

H1: The playfulness of loyalty programmes has a positive effect on customers' perceptions of hotels' utilitarian value (H1a) and hedonic value (H1b)

H2: The reward satisfaction derived from loyalty programmes has a positive effect on customers' perceptions of hotels' utilitarian value (H2a) and hedonic value (H2b)

While examining customer perceptions of a hotel's service is not the main aim of this study, the effect they may have on customers' attitudes and behaviours towards the hotel brand should also be considered so that a more complete picture of the phenomenon can be developed. According to Grace and O'Cass (2004), customer perceptions of a service experience include perceptions of core service, employee service and servicescape. Customer perceptions of core service relate to aspects such as the reliability or the quality of the service; employee service mostly examines the politeness of staff and the promptness and reliability of the services they deliver; finally, servicescape relates mainly to the visual aspects of the service, such as the attractiveness of the facilities and/or the neatness of the employees.

The previous literature draws on theories and paradigms such as stimulus-organism-response theory and service-dominant logic theory to explain the effects of customers' perceptions of service on the utilitarian and hedonic value they derive (Dedeoglu *et al.*, 2018; Itani *et al.*, 2020). In the particular case of hotel services, aspects such as long waits, unattractive rooms or employee service that does not satisfy customers' needs may lead customers to develop negative perceptions and feelings towards the hotel brand. On the other hand, prompt service, caring employee behaviour and facilities and rooms aligned with the customer's preferences create positive perceptions of the service offered by the hotel and, in consequence, may create utilitarian and hedonic value in the eyes of the customer (Li, 2021). Thus, it is hypothesised that:

H3: Customers' perceptions of the service delivered have a positive effect on customer perceived utilitarian value (H3a) and hedonic value (H3b)

2.2. Customer engagement behaviours

Pansari and Kumar (2017) defined customer engagement behaviours as “*the mechanics of a customer's value addition to the firm, either through direct or/and indirect contribution*”. Customer engagement behaviours relate only to the behavioural responses of the consumer that benefit, directly or indirectly, the company. Direct contributions refer to purchasing behaviours (Kumar and Pansari, 2016); every time a customer books a room, or pays for a service, (s)he creates value for the hotel by increasing its sales. In addition to bookings, customers engage with hotels with non-transactional behaviours that indirectly contribute to their sales. One such behaviour relates to social influence (Pansari and Kumar, 2017), that is, word-of-mouth (WOM). Engaged customers can exert social influence in various ways, for example, through traditional WOM in offline settings, and e-WOM on social media platforms (Itani *et al.*, 2020). In addition to deriving an advantage from organic WOM, hotels can also benefit from customer-incentivised referrals that can attract new customers and increase sales (Kumar and Pansari, 2016). Indeed, many hotels offer a promotion to their customers when they give referrals to a friend, a family member or social media contacts in exchange for vouchers and discounts. Finally, customers can also indirectly add value to hotels by providing feedback based on their knowledge and experience (Pansari and Kumar, 2017), such as by filling out guest comment cards.

Customer value perceptions influence customer engagement behaviours (Carlson *et al.*, 2019). This effect can be explained by social exchange theory (Blau, 1964), that is, the value customers perceive they derive from services and promotions creates value for companies. This has been empirically demonstrated in previous tourism and hospitality

research. For instance, Itani *et al.* (2020) found that customer-employee interactions determine the perceived utilitarian and hedonic value customers derive from visiting restaurants, which encourages them to share their experiences with others, promote the restaurants and to provide feedback to management. Similarly, Wu and Yang (2018) found that customers of luxury hotels cited hedonic value as the most important predictor for their booking intentions, followed by financial and utilitarian value. Finally, Dedeoglu *et al.* (2018) found that the perceived hedonic value of hotels positively influenced customers' intentions to revisit the hotels and recommend them to others. Thus, it is proposed that:

H4: Customer perceived utilitarian value has a positive effect on booking intentions (H4a), WOM (H4b), giving referrals (H4c) and providing feedback (H4d)

H5: Customer perceived hedonic value has a positive effect on booking intentions (H5a), WOM (H5b), giving referrals (H5c) and providing feedback (H5d)

2.3. The impact of gamification on loyalty programmes

The proposed model examines the underlying process of customer engagement formation in loyalty programmes, in general, but is also designed to determine the role that gamification might play in the programmes, as recent research has suggested that gamification may boost the effectiveness of loyalty programmes (Bitrián *et al.*, 2022; Hollebeek *et al.*, 2021).

Building on Melancon *et al.*'s (2011) hotel-focused research, in the present study a test is conducted to establish whether the effects of gamification vary based on level of reward offered (high vs. low) and type of benefit provided (economic vs. social reward).

It is expected that gamified programmes, in general, will boost customer engagement behaviours by influencing the customer's perceptions of the overall loyalty programme. The introduction of game elements makes loyalty programmes more appealing by positively affecting consumers' perceptions of their playfulness and their reward satisfaction (Högberg *et al.*, 2019; Hwang and Choi, 2020). Introducing gamification into loyalty programmes may, thus, increase the benefits of the offering that the customer derives by providing an enjoyable experience that elicits playfulness, or by providing a reward that reduces the price of the service, or provides extra services for the same price. If correctly applied, gamification can also be added to existing reward programmes to increase their efficiency and turn loyal customers into engaged customers (Hollebeek *et al.*, 2021). However, empirical evidence in this context is still very scarce. To shed light on this aspect, the following research question is posed:

RQ: Are gamified loyalty programmes more effective than conventional loyalty programmes in enhancing customer perceptions, attitudes and behaviours?

3. Methodology

3.1. Experimental design

For the empirical study a 2 (gamified vs. non-gamified loyalty programme) x 2 (low vs. high reward) x 2 (economic vs. social reward) questionnaire-based experimental design was used. Following Melancon *et al.* (2011), the respondents were asked to imagine that, immediately after their stay at the hotel, they had received an email from the hotel welcoming them to its new loyalty programme.

Participants in the low economic reward scenario were offered a 5% discount on a one-night stay at the hotel, while those in the high economic reward scenario were offered a

20% discount on their reservation, as well as 20% discounts on the hotel's restaurants and sightseeing tours booked through the hotel's guest services.

In the low social reward scenario, the participants were offered fast check-in and fast check-out services for their next stay; those in the high social reward scenario were offered an exclusive service pack including room upgrades and access to exclusive lounges and premium services (e.g., packing/unpacking service).

The respondents in the gamified scenario were asked to take travel quizzes adapted from the online tool *tryinteract.com*. The quizzes displayed images of well-known tourist destinations worldwide, and posed eight multiple-choice questions about them. At the end of the quizzes the scores obtained by the participants (i.e., 100 points) and the rewards they won were displayed on their computer screens (see Figure 2). The respondents in the non-gamified scenario were not asked to take part in the quizzes, but were awarded 100 points which they could redeem at future stays at the hotel.

Figure 2 about here

3.2. Survey questionnaire design

An online survey was developed to measure the respondents' perceptions of, and behaviours displayed towards, the hotel's loyalty programme and the hotel itself. The questionnaire was designed using well-established scales adapted from the previous literature (see the appendix for specific items and sources). In all cases, 7-point Likert-type scales were used, ranging from 1 = strongly disagree to 7 = strongly agree.

3.3. Data collection method, research instrument and participants

A pilot study was conducted, using a convenience sample of 24 prospective hotel customers. The objective of the pilot study was to assess the participants'

comprehension of the information given in the survey and to evaluate the experimental conditions.

For the main study, data from U.S. citizens who had spent at least one night in a hotel in the previous year were collected using the online consumer panel platform Amazon Mechanical Turk (MTurk). On average, the survey was completed in six minutes, and each participant was paid 0.80 USD. To reduce the risk of invalid responses, only MTurk workers with an approval rate of 95% or higher were allowed to take part in the survey. Two control questions, based on the assigned experimental scenario, were included in the questionnaire to ensure that the participants had paid attention. The respondents were asked about the prize they had been awarded and, for those who had completed the quizzes, the number of correct responses they had given. The respondents who answered the control questions incorrectly were removed from the final sample.

The final sample was composed of 315 individuals (42.5% female, 57.5% male), approximately half of them being younger than 35 years of age (i.e., 6% 18-24; 47% 25-34; 27% 35-44; 11.4% 45-54; 8.6% >55). The number of responses was similar across the different scenarios (gamified: 51.1% vs. non-gamified: 48.9%; high reward: 51.4% vs. low reward: 48.6%; economic reward: 53.7% vs. social reward: 46.3%).

3.4. Data analysis

3.4.1. Validity and Reliability

Partial least squares (PLS) structural equation modelling (SEM) with SmartPLS 3.0 was used to estimate and test the proposed model.

First, the validity and reliability of the scales were confirmed (Nunnally and Bernstein, 1994). As a result of the depuration process, only one of the items, CORE3, from the service perceptions scale, was dropped, as it had a factor loading below 0.6. All other

values were above this threshold, and statistically significant at 1%. The Cronbach's *alpha* and composite reliabilities were greater than 0.7, and the AVE values were above 0.5 (see Table I). Regarding discriminant validity, the square root of the AVEs for any two constructs were higher than the inter-construct correlations.

Table I about here

3.4.2. Common-method bias assessment

Common-method bias was assessed through various procedures (Podsakoff *et al.*, 2003). First, Harman's single-factor test was used to analyse whether bias existed. The results showed that no single factor accounted for the majority of the variance. Second, as the data were collected in a cross-sectional survey, common-method bias problems were controlled by inserting an item into the survey that was unrelated to the study's objectives (i.e., "*I like playing sports on my trips*"). The results showed low correlations between the answers to this question and the answers to all the other survey questions. Third, a full collinearity test, based on the variance inflation factors (VIFs), was implemented, and all values were below the 3.3 threshold.

4. Results

The structural model was evaluated using the explained variation (R^2) criteria and the degree of significance of the path coefficients, assessed by a bootstrapping technique with 5,000 iterations. The results revealed that the model explains 70% of the variance of booking, 70% of the variance of WOM, 65% of the variance of referrals, and 29% of the variance of feedback. To assess predictive relevance, the Stone-Geisser test was conducted; the Q^2 values for the dependent variables were all positive. Finally, as the SRMR showed a value of 0.07, lower than the threshold of 0.08, it can be concluded that the model has good fit. Control variables were also included in the model:

familiarity with the hotel brand, consumer involvement, motivation to travel, tendency to use coupons, COVID19-based anxiety, age and gender.

Regarding the standardised parameters (Table II), playfulness exerted positive and significant effects on perceived utilitarian ($\beta=0.15$, $p<0.05$) and hedonic value ($\beta=0.11$, $p<0.05$), whereas reward satisfaction exerted positive and significant effects only on perceived hedonic value ($\beta=0.19$, $p<0.05$). These findings support H1a, H1b and H2b, but lead H2a to be rejected. As expected, service perceptions exerted the highest effects on both perceived utilitarian value ($\beta=0.57$, $p<0.05$) and hedonic value ($\beta=0.65$, $p<0.05$), supporting H3a and H3b, respectively. Utilitarian value exerted positive and significant effects on booking ($\beta=0.38$, $p<0.05$), spreading WOM ($\beta=0.45$, $p<0.05$) and giving referrals ($\beta=0.41$, $p<0.05$), but not on providing feedback. This supports H4a, H4b and H4c, but rejects H4d. Finally, hedonic value exerted positive and significant effects on booking ($\beta=0.39$, $p<0.05$), spreading WOM ($\beta=0.41$, $p<0.05$), giving referrals ($\beta=0.42$, $p<0.05$) and providing feedback ($\beta=0.33$, $p<0.05$), supporting H5a, H5b, H5c and H5d.

Table II about here

Once the model was estimated, a test of means was conducted (using the statistical package IBM SPSS 26.0) to address the research question and determine whether gamified loyalty programmes are more influential than non-gamified loyalty programmes.

First, to test whether individuals perceived the prize proposed in the “high reward” condition as more appealing than the prize offered in the “low reward” setting, the following item was used: “*This loyalty programme allows me to win attractive rewards*” (1=strongly disagree, 7=strongly agree). As expected, the degree of agreement was higher in the first case ($M_{HIGH}=5.51$; $M_{LOW}=4.89$; $p<0.001$), and no

differences were found in attractiveness between economic and social rewards ($M_{ECO}=5.24$; $M_{SOC}=5.18$; $p>0.1$). Conversely, attractiveness was also higher in the gamification condition ($M_{GAM}=5.44$; $M_{NGAM}=4.97$; $p=0.003$), and quiz type had no significant effect on this variable ($p>0.1$).

As expected, the main effects of gamification were exerted on playfulness and reward satisfaction. Independent samples t-tests revealed that gamification boosts the perceived playfulness of the overall loyalty programme ($M_{GAM}=5.51$; $M_{NGAM}=4.01$; $p<0.001$) and makes customers more satisfied with the reward obtained ($M_{GAM}=5.43$; $M_{NGAM}=4.94$; $p<0.001$). Figures 3 and 4 depict the mean differences for each of the groups.

Figure 3 about here

Figure 4 about here

A two-way analysis of variance (ANOVA) showed that playfulness was also positively affected by the reward level (high vs. low) in the non-gamified conditions ($F=19.209$; $p<0.01$; $\eta^2=0.11$). Reward satisfaction was affected by this variable in both the gamified ($F=4.394$; $p=0.04$; $\eta^2=0.03$) and the non-gamified conditions ($F=30.163$; $p<0.01$; $\eta^2=0.17$), although the partial eta squared statistics (η^2) indicated a stronger effect in the second case. In addition, reward type (economic vs. social) did not influence either playfulness or reward satisfaction.

The results revealed other interesting differences between the gamified and non-gamified scenarios. In the non-gamified conditions, the level of reward increased utilitarian value ($M_{HIGH}=5.42$; $M_{LOW}=5.73$), with a marginal ($F=2.942$; $p=0.09$) and small effect ($\eta^2=0.02$), whereas gamification seemed to reduce the effects of reward level ($p>0.1$). In addition, in the gamified conditions a significant moderate effect between level of reward and intention to give referrals was found ($M_{HIGH}=5.37$;

$M_{LOW}=5.97$; $F=7.116$; $p<0.01$; $\eta p^2=0.05$). In sum, the results suggested that in gamified programmes consumers are less influenced by the level and type of reward offered than are consumers in non-gamified programmes.

5. Discussion

5.1. Conclusions

This study empirically demonstrates the mechanisms underlying the formation of customer engagement behaviours in the context of loyalty programmes. In line with previous studies (Dedeoglu *et al.*, 2018; Wu and Yang, 2018), in this research it has been found that customers' perceptions of the utilitarian value and hedonic value of a hotel drive their engagement behaviours in terms of bookings, spreading WOM and giving referrals. However, providing feedback to the hotel was predicted only by hedonic value; in other words, to go to the effort of contacting the hotel to share their experiences, customers must have enjoyed a memorable experience, as only feeling that the hotel was good value for money would not have been enough to persuade them to make that effort. In addition, the findings suggest that customers' perceptions of the value created by a hotel are influenced by their previous experiences with the hotel (i.e., core service, employee service and servicescape), which is consistent with previous literature (Itani *et al.*, 2020; Li, 2021), and by their perceptions of the hotel's loyalty programme (i.e., playfulness and reward satisfaction). In this line, the findings also demonstrated that loyalty programmes offering economic or social benefits are equally attractive to customers, which seems to contradict previous research that found differences based on whether customers receive economic or social rewards (Lee *et al.*, 2015; Melancon *et al.*, 2011).

Pushing existing knowledge forward, this study found that incorporating gamification into their loyalty programmes provides significant benefits for hotel brands. In particular, the results suggest that gamified loyalty programmes are perceived by hotel clients as more appealing in terms of playfulness and reward satisfaction than non-gamified loyalty programmes. In addition, the findings demonstrated that gamification may lower the importance that customers attach to reward levels. Thus, gamification enhances the customer's perceptions of loyalty programmes, particularly in those cases where rewards are low.

5.2. Theoretical implications

The present study contributes to the academic literature in various ways. First, the study advances previous research into loyalty programmes (Chen *et al.*, 2021; Meyer-Waarden *et al.*, 2023) by developing and testing an integrated framework that analyses the processes underlying customer engagement behaviour formation, taking into account variables related to the programme, the service and the brand itself.

Second, the study sheds new light on the role of gamification in enhancing the effectiveness of loyalty programmes (Bitrián *et al.*, 2022). Although several companies have recently made investments in gamification to improve their loyalty programmes, paying insufficient attention to customer engagement has diminished the return on their investments (Lim *et al.*, 2022). This study contributes to the scant research into gamified loyalty programmes by responding to the calls made by Hollebeek *et al.* (2021) and Lim *et al.* (2022) for empirical research to be undertaken to analyse their effectiveness. By comparing gamified and non-gamified loyalty programmes, this study sheds light on how gamification affects customers' perceptions and engagement behaviours. By doing so, this research advances on previous studies that analysed customer engagement using only gamified scenarios (e.g., Bitrián *et al.*, 2022; Högberg

et al., 2019) and, therefore, were unable to conclude whether gamified scenarios are more effective than conventional scenarios.

Finally, this study provides empirical support as to how gamification might provide value to the hospitality industry through its analysis of hotel-focused gamified loyalty programmes. Although gamification may be common in practice, academia has largely neglected to analyse its effectiveness.

5.3. Practical implications

This study makes a series of practical proposals for hotel managers that can be summarised in the “G-A-M-E” rule: (1) Gamify your programme; (2) Add value to your hotel; (3) Make service your priority; and (4) Explore different rewards.

The first recommendation for hotel managers is that they should gamify their loyalty programmes, given that the study’s findings have demonstrated that gamified programmes enjoy clear advantages over non-gamified programmes. This would help hotels by making their rewards more attractive to customers, so that small discounts or extra services that might be considered insignificant in other circumstances will become appealing to customers that have been put into a positive mood by gamification featured in loyalty programmes.

Second, as perceived hotel value –especially hedonic value– is key for fostering customer engagement behaviours towards the hotel brand, hotel managers should take actions to add value for customers. These days, tech-savvy travellers have high expectations of hotels, so hotel managers should enhance their hotels’ in-room amenities with the latest innovations (e.g., access to new content platforms) to offer a more pleasurable hotel experience. Hotels should also personalise the experience based on guest type, for example, by offering co-working spaces to business travellers,

wellness spaces to leisure travellers and in-room toys/games to families travelling with children. The key underlying concept is to anticipate customers' needs and wants to create a memorable experience.

Third, while this study shows that an appropriate loyalty programme can create value, providing optimal hotel service is crucial for adding value. Therefore, hotel managers should prioritise their core services: by improving the hotel's overall quality to make it superior to the competition; training and motivating their employees, who should be polite, willing to help, well-dressed and passionate; by improving the servicescape, by controlling the ambient conditions (e.g., temperature, air quality, noise, odour), and enhancing décor, layout and furnishings, and even the hotel signage, for local and international customers.

Finally, as this study found that reward type selected does not affect customers' perceptions of loyalty programmes, it provides hotel managers with an opportunity to explore the type of reward that would best suit their hotel brand's characteristics. Thus, based on their strategies, structure and capacity to offer certain services, hotel managers can choose between economic rewards –including discounts on accommodation and other hotel services– and social rewards –VIP experiences, birthday treats, partnership perks and even charitable donations– to please their customers.

5.4. Limitations and future research lines

This study has some limitations that provide opportunities for future research. First, the study collected data through a cross-sectional survey. Thus, future research should use longitudinal data to analyse whether the reported benefits of gamification remain stable or diminish over time. Previous studies into gamification have suggested that it suffers from the “novelty effect” (Koivisto and Hamari, 2019), that is, individuals are initially curious about gamified elements but, as time passes, and the novelty effect wears off,

their impact tends to decrease. Second, this study analysed quiz-based gamification. Future research might use other gamification approaches. Indeed, it would be interesting if future studies focused on the effect of the fit between the game and the hotel brand. Third, this study used a sample of U.S. travellers. Future research should replicate this study with a broader sample of users. Indeed, another interesting research avenue would be to explore differences in effects between customer segments, based on personality traits, or differences between business travellers and tourists. Finally, this study analysed a fictitious loyalty programme expressly designed for the research. Therefore, future research might analyse the effectiveness of real gamified loyalty programmes.

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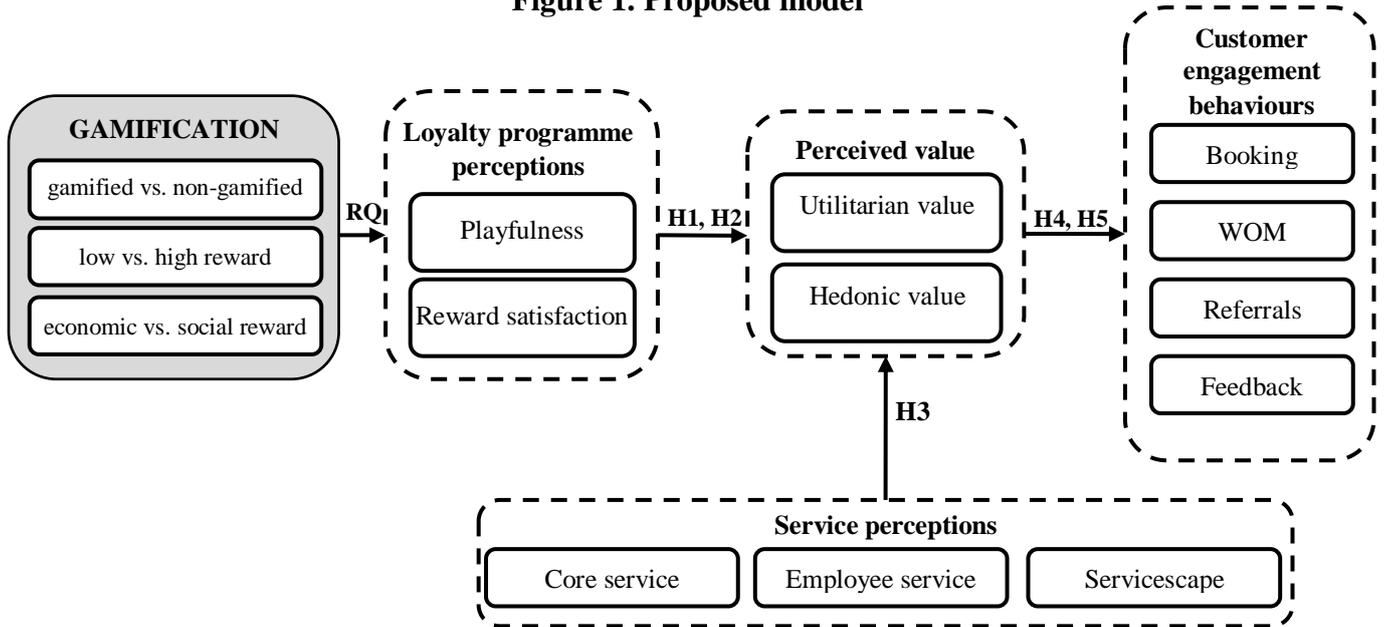
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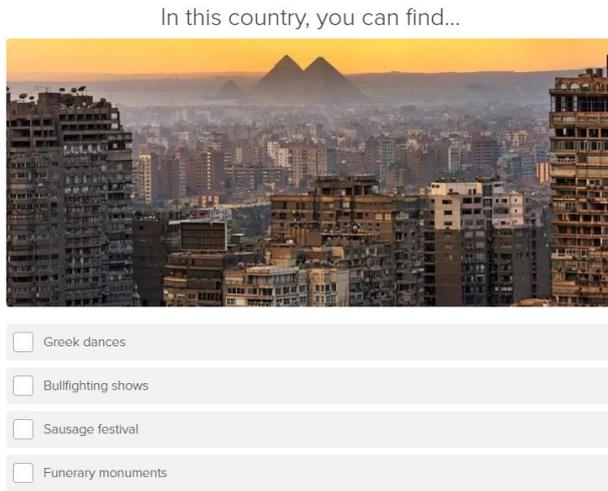
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Figure 1. Proposed model



Source: Authors' own creation

Figure 2. Screenshots of one of the quizzes in the gamified scenario



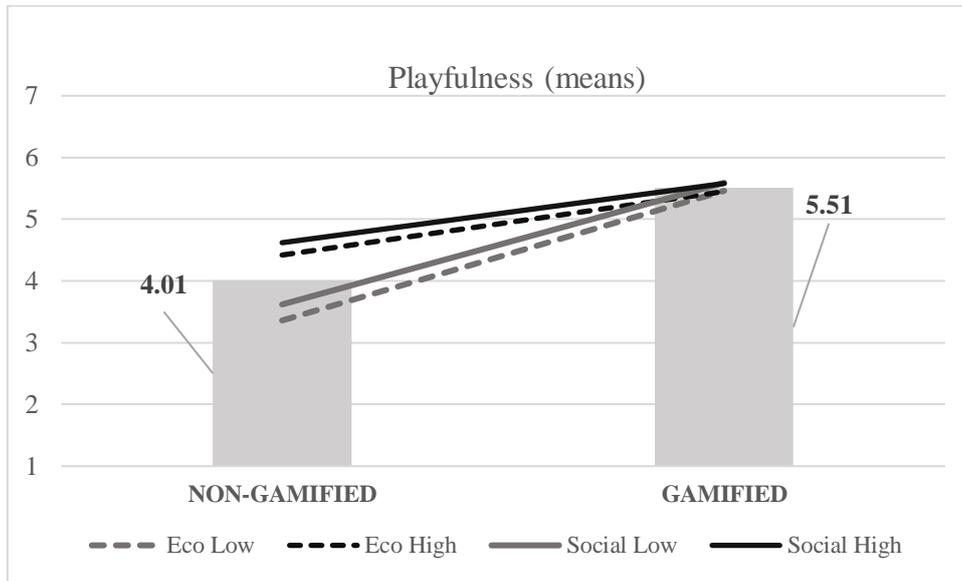
Prize: 100 points

These points can be exchanged for 5% off of one night's stay at this hotel chain.

With more points, you can get greater discounts...

Source: Authors' own creation using the website *tryinteract.com*

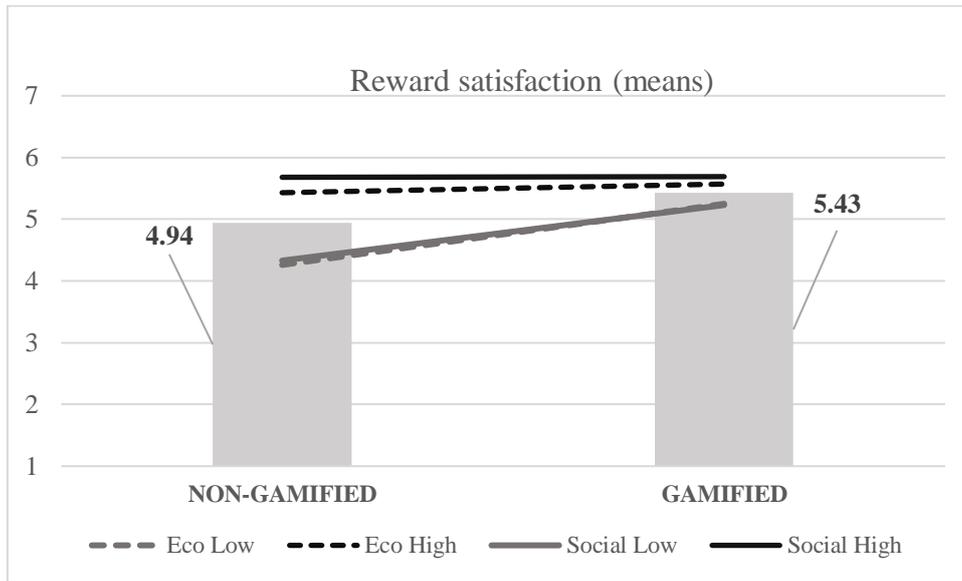
Figure 3. Effect of gamification on playfulness



Note: "Eco Low" and "Eco High" refer to the low and high economic reward scenarios. "Social Low" and "Social High" refer to the low and high social reward scenarios.

Source: Authors' own creation

Figure 4. Effect of gamification on reward satisfaction



Source: Authors' own creation

Table I. Convergent validity and reliability analysis

	Indicator	Factor Loadings	Cronbach's <i>alpha</i>	Composite Reliability	AVE
Playfulness	<i>PLAY1</i>	0.85	0.92	0.94	0.81
	<i>PLAY2</i>	0.94			
	<i>PLAY3</i>	0.93			
	<i>PLAY4</i>	0.86			
Reward satisfaction	<i>RSATIS1</i>	0.91	0.91	0.94	0.85
	<i>RSATIS2</i>	0.94			
	<i>RSATIS3</i>	0.91			
Core service	<i>CORE1</i>	0.84	0.90	0.93	0.78
	<i>CORE2</i>	0.89			
	<i>CORE4</i>	0.91			
	<i>CORE5</i>	0.88			
Employee service	<i>EMPL1</i>	0.84	0.93	0.94	0.69
	<i>EMPL2</i>	0.86			
	<i>EMPL3</i>	0.77			
	<i>EMPL4</i>	0.82			
	<i>EMPL5</i>	0.85			
	<i>EMPL6</i>	0.85			
	<i>EMPL7</i>	0.82			
Servicescape	<i>SCAPE1</i>	0.85	0.89	0.93	0.76
	<i>SCAPE2</i>	0.87			
	<i>SCAPE3</i>	0.85			
	<i>SCAPE4</i>	0.91			
Utilitarian value	<i>UTILIT1</i>	0.90	0.88	0.92	0.80
	<i>UTILIT2</i>	0.89			
	<i>UTILIT3</i>	0.90			
Hedonic value	<i>HEDO1</i>	0.92	0.87	0.92	0.79
	<i>HEDO2</i>	0.90			
	<i>HEDO3</i>	0.86			
Booking	<i>BOOK1</i>	0.91	0.86	0.91	0.78
	<i>BOOK2</i>	0.86			
	<i>BOOK3</i>	0.88			
WOM	<i>WOM1</i>	0.92	0.90	0.94	0.83
	<i>WOM2</i>	0.91			
	<i>WOM3</i>	0.91			
Referrals	<i>REFER1</i>	0.95	0.93	0.96	0.88
	<i>REFER2</i>	0.92			
	<i>REFER3</i>	0.94			
Feedback	<i>FEED1</i>	0.90	0.89	0.93	0.81
	<i>FEED2</i>	0.93			
	<i>FEED3</i>	0.88			

Source: Authors' own creation

Table II. Results of the structural model

Hypotheses	β	t-value
H1a: Playfulness → Utilitarian value	0.15	2.60*
H1b: Playfulness → Hedonic value	0.11	2.74*
H2a: Reward satisfaction → Utilitarian value	0.10	1.51
H2b: Reward satisfaction → Hedonic value	0.19	2.97*
H3a: Service perceptions → Utilitarian value	0.57	9.83*
H3b: Service perceptions → Hedonic value	0.65	12.06*
H4a: Utilitarian value → Booking	0.38	5.66*
H4b: Utilitarian value → WOM	0.45	6.91*
H4c: Utilitarian value → Referrals	0.41	6.02*
H4d: Utilitarian value → Feedback	0.08	0.82
H5a: Hedonic value → Booking	0.39	5.76*
H5b: Hedonic value → WOM	0.41	6.38*
H5c: Hedonic value → Referrals	0.42	6.24*
H5d: Hedonic value → Feedback	0.33	3.46*

Note: * $p < 0.05$ **Source:** Authors' own creation

°Appendix. Scale composition and descriptive analysis

Scales		Mean	St. Dev.	Skew	Kurtosis
LOYALTY PROGRAMME PERCEPTIONS					
<i>Playfulness</i> (Hwang and Choi, 2020)					
<i>PLAY1</i>	This loyalty programme is playful	4.77	1.61	-0.53	-0.32
<i>PLAY2</i>	This loyalty programme is creative	4.85	1.74	-0.61	-0.53
<i>PLAY3</i>	This loyalty programme is inventive	4.78	1.68	-0.62	-0.43
<i>PLAY4</i>	This loyalty programme is experimenting	4.70	1.69	-0.57	-0.43
<i>Reward satisfaction</i> (Högberg et al., 2019)					
<i>RSATIS1</i>	The reward I will get will make me feel good when I use it	5.43	1.38	-0.88	0.46
<i>RSATIS2</i>	The reward I will get will give me a good deal	5.17	1.49	-0.72	0.03
<i>RSATIS3</i>	The reward I will get will give me a sense of joy, beyond the money I will save	4.98	1.62	-0.77	0.02
SERVICE PERCEPTIONS (Grace and O’Cass, 2004; So and King, 2010; Bravo et al., 2019)					
<i>Core Service</i>					
<i>CORE1</i>	The hotel suits my needs	5.90	0.95	-0.69	0.12
<i>CORE2</i>	It is reliable	5.99	0.97	-0.96	0.87
<i>CORE3</i>	It is superior to other hotels	5.21	1.21	-0.42	-0.04
<i>CORE4</i>	It is good service	5.98	0.99	-1.04	1.09
<i>CORE5</i>	It is quality service	5.96	0.97	-0.94	0.85
<i>Employee Service</i>					
<i>EMPL1</i>	Employees provide prompt service	5.88	1.04	-1.00	0.99
<i>EMPL2</i>	They are willing to help	6.01	1.03	-1.07	1.10
<i>EMPL3</i>	They are never too busy for me	5.63	1.25	-0.97	0.92
<i>EMPL4</i>	I can trust the employees	5.76	1.14	-1.12	1.76
<i>EMPL5</i>	I feel safe with them	5.96	1.04	-0.93	0.53
<i>EMPL6</i>	Employees are polite	6.15	0.92	-0.96	0.41
<i>EMPL7</i>	They give personal attention	5.84	1.08	-0.76	0.01
<i>Servicescape</i>					
<i>SCAPE1</i>	Employees are neat	6.11	0.96	-0.92	0.28
<i>SCAPE2</i>	The facilities suit the type of service	6.09	0.98	-1.07	1.00
<i>SCAPE3</i>	Facilities are up to date	6.01	1.04	-0.91	0.25
<i>SCAPE4</i>	Facilities are attractive	6.02	1.07	-0.93	0.23
UTILITARIAN VALUE (Itani et al., 2020)					
<i>UTILIT1</i>	This hotel brand offers good value for money	5.69	1.20	-1.08	1.59
<i>UTILIT2</i>	This hotel brand provides a good deal in comparison with other, conventional hotels	5.52	1.17	-0.59	0.31
<i>UTILIT3</i>	I would get my money’s worth If I stay at this hotel brand	5.71	1.13	-0.94	1.48
HEDONIC VALUE (Itani et al., 2020)					
<i>HEDO1</i>	This hotel brand allows me to have a good time	5.66	1.10	-0.61	-0.01
<i>HEDO2</i>	I enjoy this hotel brand	5.89	1.07	-0.80	0.41
<i>HEDO3</i>	This hotel brand helps me to enjoy my time and forget my problems	5.64	1.20	-0.86	0.82

CUSTOMER ENGAGEMENT BEHAVIOURS (Kumar and Pansari, 2016; Itani et al., 2019)					
<i>Customer Purchases (booking)</i>					
<i>PURCH1</i>	I will continue booking this hotel brand in the near future	5.65	1.21	-1.08	1.52
<i>PURCH2</i>	When I need to book a hotel, I will take this hotel brand as my first option	5.45	1.35	-0.88	0.58
<i>PURCH3</i>	I am likely to book at this hotel brand again	5.87	1.19	-1.26	2.08
<i>Social Influence (WOM)</i>					
<i>WOM1</i>	I will say positive things about this hotel brand to others	5.78	1.22	-1.12	1.49
<i>WOM2</i>	I will recommend this hotel brand to others	5.82	1.20	-1.01	1.18
<i>WOM3</i>	I will encourage my friends and relatives to stay at this hotel brand	5.69	1.30	-0.95	0.70
<i>Referral value (giving referrals)</i>					
<i>REFER1</i>	I would recommend my friends to stay at this hotel brand if bonus points were offered	5.76	1.26	-1.01	1.06
<i>REFER2</i>	I would recommend my friends to stay at this hotel brand if any discount was offered	5.85	1.20	-1.21	1.87
<i>REFER3</i>	I would recommend my friends to stay at this hotel brand if a gift was offered	5.70	1.35	-1.08	1.06
<i>Knowledge value (providing feedback)</i>					
<i>FEED1</i>	I will provide feedback to the hotel about my experiences	5.43	1.30	-0.69	0.36
<i>FEED2</i>	I will provide suggestions to the hotel about their services	5.21	1.42	-0.64	0.11
<i>FEED3</i>	I will provide suggestions to the hotel for developing new services	5.07	1.51	-0.58	-0.15

Note: All the factors were measured on seven-point Likert scales (*1=strongly disagree; 7=strongly agree*). Standard error in skew was 0.13, and in kurtosis 0.27.