**Gamified Customer Experience and Engagement in Amazon Online Retailing Company in The Covid -19 era**

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ABSTRACT

This study aims to fill the gap between gamification features and their impacts on practical marketing activities in The Covid -19 era by providing a comprehensive analysis between gamification features: immersion (storytelling), achievement (reward), and social (competition) on customer experience (CX) and engagement (CE). In this study, a Quasi-experimental design method was used to examine the relationship of the gamification features on CX and engagement. To investigate, an online survey was distributed to 200 students and they were exposed to three different scenarios randomly. Structural equation modeling, Analysis of variance (ANOVA), t-test, regression, path analysis and Sobel test were used to evaluate the impacts of gamification on CX and engagement. The results reveal that gamification has positive effect on CE and CX while, achievement has a more substantial impact than immersion and social on CX, competition has a stronger positive effect than storytelling but weaker positive effect than reward.

**Keywords**: The Covid -19, Gamification, Customer experience (CX), Customer engagement (CE), Achievement features

1. INTRODUCTION

The emergence of The Covid -19 has negatively and profoundly impacted global economy and marketing activities [1, 2]. As it seems that this situation may continue for a couple of years, managers need to adopt new managerial ways to neutralize the adverse effects of The Covid -19 on their marketing activities and, ultimately, their businesses [3, 4]. In this regard, negative impacts of The Covid -19 and recent advancements in digital, social media and mobile communications have created a new area that makes marketers reconsider the CX as they effectively convey value propositions and the procedure to maintain meaningful customer-brand relationships and respond to The Covid -19 effectively [5, 6].

The emergence of new strategies embraced by both academics and practitioners, substantial and prolonged negative effect of The Covid -19 on economy, has led to the use of the gamification in the marketing activities [7, 8]. Gamification means using game designs in non-game contexts [9]. That is, gamification refers to use and application of game features and mechanisms such as fun, storytelling, reward, or competing to change in the real-word contexts to alter the user behavior and cognitive process [10, 11, 12]. In the marketing context, gamification means “designing products and services to provide game-like experiences to create value and prompt more positive responses from customers” [10, 13]. The impact of gamification has been studied in a different context such as consumer loyalty, customer satisfaction, advertising and branding by many researchers and scholars. [12, 14]. In practice, many companies also employed gamified mechanisms as a part of their marketing activities. For instance, Starbucks has launched a reward-based program where customers can get free drinks for their future purchases by collecting a certain number of points [10].

Therefore, this helps firms to create emotional and reactive behavioral responses and experiences to a competitive advantage due to the Covid -19. In this respect, despite numerous investigations on advertising, branding and engagement, the customers’ behavioral contexts, specifically customers’ experience (CX) and its impacts on customer engagement (CE) almost remained unsolved. CX, which was firstly introduced by Holbrook and Hirschman (1982), is a multidimensional and individual response that customers have with companies, whether directly or indirectly [15, 16, 17]. This concept plays a vital role in marketing and entrepreneurial performance by making the marketing activities more attractive for the customers [18]. Consequently, CE refers to a psychological state in which customers have a strong feeling toward a company that is beyond just purchasing and has a crucial role in the relational exchange process [9, 19, 20]. Despite the recent studies, the efficiency of gamification mechanisms is not as much evident as the investigations were conducted descriptively and conceptually, especially in the marketing field and is still in an early stage [19, 20, 21], and due to nature of this subject, more experiential researches are needed. Moreover, it is well noted to explain that no research has seen in this field (but the authors) that demonstrates the impacts of gamification features on CE and CX, and this research has been done for the first time in this area on of the biggest online shopping platforms (Amazon). In this respect, to address this critical gap, we explore the impact of gamification features on CX and CE by developing Quasi-experiments and tests.

To sum up, the research aims to: first, scrutinize the gamification features (reward, competition, and storytelling) and their impacts on CX using a scenario-based Quasi-experimental method; second, conduct an online survey among customers (N=200) on CX and CE to investigate the effect of CX on CE; third, examine the findings and illustrating the results and forth, present an implication by providing scientific and managerial findings both for researchers and practitioners, which can be helpful in their marketing activities.

1. LITERATURE REVIEW

**2.1 Gamification**

The success of computer games and their massive adoption has led researchers and practitioners to invest in its concept to get a better picture of gamification features and mechanisms.

Gamification has paved its way to marketing and is considered one of the fastest-growing research areas in recent years [2, 22]. Gamification implies the use of game mechanisms to create game-like experiences in the real-world contexts to change users’ behavior [13]. Also, gamification entails more motivation and CX, which in turn can increase the firm’s information process [9, 23, 24]. Albeit gamification is based on gamified processes, it differentiates the game playing with four distinctive features: progress paths, feedback, social connection, interface, and user experience [10, 11]. In this research, we focus on progress path features thorough user experience.

Based on the recent studies, gamification could be divided into three distinct aspects: achievement-related features, social-related features, and immersion-related features [12, 25]. Achievement-related features imply those features which are more associated with the sense of accomplishments, e.g., rewards, points, badges, coins, and goals [26]. Immersion-related features also refer to the factors which provoke self-directed, inquisitive activities [22]. Immersion-related activities include avatars, role play, storytelling and customization, which may lead to more psychological investment in independent thinking [27]. Social related features, on the other hand, point out to making social relationships as well as having a sense of belongings to a social environment and include competition, cooperation, etc. [2, 28]. This feature is based on the assumption that individuals could be more satisfied and feel more related if they experience a sense of communion and develop close relationships with others [29].

As noted earlier, achievement-related features deal with the sense of accomplishment. These features are more related to goal-based activities, so they can be more associated with cognitive aspects than other features [25]. Immersion-related features also attempt to immerse users in more curious activities and include several factors such as storytelling, avatars, etc. In this respect, avatars and customization by providing them freedom of choice and giving them more option or the ability to have their own customized feature, thereby, lead to a sense of more autonomy. The autonomy sense can lead to the more active participation and it can bring on immersion.

Storytelling, on the other hand, produces a sense of meaningfulness, so it might cause voluntary activities and more participation [28]. Social-related features also improve participation and better performance due to the creation of social relations and the formation of belongings in a community [2]. In specific, while competition leads to more sense of belongingness, cooperation strengthens the teamwork values [28]. Therefore, these features reinforce participative and belongingness feelings through building small communities and close relationships.

**2.2 Customer experience (CX)**

In today’s “experience economy” era, creating an experience with customers is a way to reach them [30, 31]. In line with the increasing influence of customers on firms’ activities, the concept of CE is receiving significant attention.

CX refers to the multidimensional and individual responses customers have with companies, whether directly or indirectly [16, 17]. Direct contact implies the customers’ actions such as purchasing and using the firm’s products. On the other hand, indirect contact refers to the unplanned encounters of customers with promotional elements and activities of the firm such as its brand and products, which can be implemented through advertising, recommendations, news, and word-of-mouth [16, 32].

The significance of CX as a competitive advantage of companies has been investigated by many researchers. In this respect, Bhattacharya et al. (2019) explored the impact of CX on online shopping by presenting the integrated model of online customer experience (OCX) with a quantitative approach. The results showed that CX could significantly impact customer satisfaction, online purchase intention, and business outcomes [33]. Jin et al. (2018) proved the mediating role of CX on marketing capability in entrepreneurial performance [18]. In addition, Wijayaetal (2020) investigated the role of CX on customers’ behaviors, and intentions it was found that CX results in perceived usefulness, expectation, and satisfaction [12]. Bilgihan et al. (2016), explored that brand engagement, positive word of mouth (WOM) and repeat purchase are the outcomes of online customer experience. In other words, they found that CX entails positive word-of-month, brand engagement, and purchase intention [34]. Bustamante and Rubio (2017) studied the role of CX in physical retail environments, and the results indicated that in-store CX leads to customer satisfaction and loyalty [35].

**2.3 Customer Engagement**

CE was first introduced by Kahn (1990), has received much attentions from researchers. Yet, there is no consensus in the definition. Customer engagement has been defined in different contexts such as psychological, behavioral, and managerial [36]. Engagement refers to a cognitive, temporal, affective, and behavioral investment of users when interacting in a digital context that may lead to customer retention and loyalty [37]. Brodie et al. (2011) defined CE as “a multidimensional concept comprising cognitive, emotional, and behavioral dimensions” [19]. Also, it is defined as “a firm’s deliberate effort to motivate, empower, and measure a customer’s voluntary contribution to its marketing functions beyond a core economic transaction” [38]. Vandorrm et al. (2010) defined CE as “behaviors go beyond transactions, and might be specifically defined as a customer’s behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers” CE requires a long-term relationship with customers which entails a more robust behavioral response than just purchasing, thereby, firm performance [9, 39, 40, 41].

CE has been investigated extensively by many researchers and practitioners. Due to the ongoing interactions between the company and customers, many researchers find out that sustainable, profitable relationships with customers plays a central role in the present competitive, and globalized era. In this regard, CE can be classified into emotional, cognitive and social dimensions and lead to brand loyalty and brand equity [42]. In this respect, emotional engagement relates to the degree of positive emotions toward a specific brand or firm [20]. Cognitive engagement, on the other hand, refers to more logical views that customers have about products. That is, customers have an interest in a brand in processing. The social dimension also refers to the aspects associated with interactive and collaborative reactions of customers.

Although the intensity of the emotional, social and cognitive dimensions might change, studies prove their influence on customers [15]. In emotional engagement which customers have a more positive and effective view toward a brand and its activities, studies prove that customers with a higher level of emotional attachment will be more motivated and participative in brand activities [12]. The social dimension, which is associated with interactions, may enhance the sense of belongingness. Cognitive dimensions, however, impact the duration of focus and conscious attention of customers [41].

**2.4 Hypothesis development**

As discussed earlier, gamification is a relatively new concept, and there are not many substantial studies conducted regarding its importance. Gamification is seen as the future of marketing schemes, and CX and CE. Gamification refers to the use of game elements in a non-game context to change user’s behavior [12, 13]. With the help of gamification, companies can gamify individual touchpoints or entire customer journeys and support customers to have a more enjoyable experience.

Based on flow theory, people in a state of flow shift into optimum experiential mood and they are fully engaged in a focal activity. Flow is explained as a holistic sensation that can be experienced in total involvement and can be promoted when a *challenge* is appropriate for the skill level of the user [10]. These characteristics of flow drive people to be fully immersed in an activity. Flow theory has been applied to understand outcomes of flow such as behavioral intentions and behaviors [13]. Also, this concept is adopted in different marketing contexts such as consumers' online experiences, online shopping, gamification in social commerce, and gamified physical exercise services and gamification in loyalty programs for customer loyalty [10, 13, 22, 43]. As matter of fact, the impact of gamification on flow theory and flow experiences has not yet been carefully examined. Recently, Oliveira et al. (2021) explained how gamification affects flow experience by conducting new experimental studies which investigate how gamification affects the users’ flow experience in different gamified settings, applications, and domains [44].

As explained, gamification features have impacts on flow experience. Based on flow theory, consumers may perceive good experiences derived from gamification features such as fun, competition as additional benefits, and these experiences may elicit a flow state [13, 25]. These characteristics of flow drive people to be fully immersed in an activity. This immersion leads to a better customer journey. The flow experience can attract consumers and affect subsequent behaviors. Indeed, CX, is a behavioral response of the customers to an organization. Moreover, as Barta et al. (2021) explored flow experiences can influence CE [45]. Finally, gamification features such as fun, storytelling, reward, or competition can affect flow experiences and this can change behavior and response of customers. So, the first hypothesis is formed as the following:

**H1:** There is a positive relationship between gamification features and CX

Immersion-related features initially try to immerse the player in self-directed, inquisitive activity and include stories and [narratives](https://www.sciencedirect.com/topics/social-sciences/narrative), avatars, virtual worlds ,etc. In this paper, we consider storytelling as a part of immersion-related features. To be precise, stories have the power of driving more emotions. That is, stories convey a particular message and are valued whether positively or negatively, so they involve the readers/listeners and entail deeper and more sensational connections. This fact may form a specific context and influence readers’ actions and rationality. Moreover, Stories are categorized into firm-originated and customer-originated ones and generate convincing emotions which have more salient effects than facts and can impact CX and its subsequent behaviors [46, 47, 48]. So, the second hypothesis is formed as the following:

**H1a:** There is a positive relationship between storytelling as an immersion-related factor and CX.

Along with immersion-related factor, another commonly implemented gamification features is achievement or progress-related feature which tries to increase players’ sense of accomplishment and include such game mechanics as badges, challenges, missions, goals, leaderboards, progression metrics, reward, etc. The prevalence of this trait in gamification implementations is vast due to being readily applicable to various types of the existing systems [22, 49]. In this paper, we consider reward as a part of achievement-related features [12]. Most of the research was conducted on the role of achievement-related features, specifically rewards, on marketing and consumer behavior [2, 50]. Rewards are divided into two groups: immediate rewards and delayed rewards. In immediate or quick types of rewards, the customers are given specific rewards such as discounts, badges right after their purchase [27]. These types of rewards have psychological effects as they generate a sense of belonging, attendance, and future anticipation among customers. The delayed rewards, on the other hand, have redemption and cost/benefit effect. These rewards have a saving and accumulation mechanism in which customers are provoked to reach the threshold level to receive the given goal [51]. These types of rewards expose customers to switching costs. Then, a customer sees himself/herself in a situation that if terminates reward collecting, they will lose the accumulated points [52]. Gamification mainly triggers immediate rewards which increase consumers’ sense of accomplishment. By providing such rewards, service providers can strengthen CX and customer loyalties. Also, Siebert et al. (2020) illustrate the impacts of loyalty programs on rewards systems on customer journey and CX and confirm this relationship too [53]. Therefore, the next hypothesis can be formed as follows:

**H1b:** There is a positive relationship between reward as an achievement-related factor and CX.

As mentioned earlier, social-related features primarily attempt to enable players’ social interaction, and include such game mechanisms as cooperation/collaboration structures, praise, etc. In this paper, we consider competition as a part of social-related features. In general, social-related features are associated with CE, specifically its emotional and cognitive aspects [8]. Meanwhile, competition as a social feature is an augmenter factor of customer loyalty and customer value and shapes alternative selections for customers to change their behaviors [54]. Therefore, we expect that:

**H1c:** There is a positive relationship between competition as a social-related factors and CX.

Achievement-related features generally are more connected with the sense of accomplishment and self-actualization. Such features are rewards, badges, quests, challenges, goals, and leaderboards. These features are more cognitive and rational than other elements [49]. Social related features refer to features as social interaction, team works, cooperation, or collaborations [12]. Density is a determining factor in social activity. That is, in high social density contexts, the customers are expected to be more responsive, whether negatively, such as in crowded situations, or positively in ceremonial contexts [55]. Also, the customer value is associated with CE and refers to creating a positive experience, among customers, which can be achieved through employee-customer interaction [55, 56, 57]. Thus, the subsequent hypothesis is created as the following:

**H1d:** Achievement related features of gamification (reward) has a stronger positive effect than immersion (storytelling) and social (competition) related features on CX.

Generally, humankind expects to be engaged in a social matrix [2]. So, when people participate in social activities, they feel more satisfied and also will have a sense of belonging to that context [13, 58]. As discussed above, Competition as one of the main features of gamification can affect CX. It is worthwhile to mention that planned competition as a social-related factor of gamification can creates a gamified context in which while one individual or group is the winner at the end, the other one is the loser. Numerous studies proved the promising role of competition on the users as it makes the context more enjoyable and drives user to feel more belonged. However, despite the mentioned facts, competition might have an adverse effect on users if it is designed wrongly or even puts excessive pressure on players. Immersive-related features differently, target sensational aspects of users and attempt to evoke their emotions and bolster their self-directed behaviors [2]. Stories in this respect are structured in a way to engage users and convey a specific message [59]. Further, these features generally intensify goal-directed behaviors and assist players to obtain new skills [12, 28]. Then, the impact of rewarding as an achievement-related features are more determining than other features of gamification. Therefore, it is predicted that:

**H1f:** Social-related features of gamification (competition) has a stronger positive effect than immersion-related (storytelling) but a weaker positive effect than achievement- related features (reward) on CX.

CE is defined as direct or indirect customers’ responses to the firm. CE includes three main steps of purchase: pre-purchase, purchase, and post-purchase [60]. When customers’ positive experience is shaped, they are more likely to increase positive interaction and recognition, which subsequently affects their purchase and loyalty [12]. In an online context, CE is also defined as “a psychological state manifested as a subjective response to the web entrepreneur’ value proposition” [17]. Therefore, CX is associated with satisfaction and is a comparison between what has been received and what was expected [61, 62]. CE, as a multidimensional concept including cognitive, social and emotional, refers to the customer’s relationship with the firm [36]. Engaged customers divulge behaviors that go beyond pure purchase and encompass word-of-mouth (WOM), recommendations, cross-buying, and active voice/complaint [63]. Thus, it is expected that if customers face attractive offers, high quality of products, and proper behavior of staff; they will have positive experience toward that organization. This positive experience can cause indirect or direct responses toward that company and generates engagement [64]. In this respect, the second hypothesis is put forward as follows:

**H2:** There is a positive relationship between CX and CE.

Gamification implies the design of systems and products in a way to give the same experience of games to the customers [13]. Gamification satisfies intrinsic needs and drives users to perform specified activities to achieved gamification goals [2]. As discussed earlier, gamification aspects are classified into immersion, achievement, and social [2, 12]. These features have a direct positive relationship with CX. Hence as gamified activities may increase customer satisfaction and affect its behavior, it can be derived that those customers would be engaged and will have beyond-purchase actions. The gamification features reinforce participative and belongingness feelings through building small communities and close relationships too. It means that gamification activities may increase CE if they have an enjoyable, and memorable brand experience. Finally, engaged customers have higher levels of positive emotions, satisfaction and loyalty and usually demonstrate beyond-purchase activities [64]. Also, customers who have a positive feeling about a specific firm or product or have positive experiences toward that brand are expected to be more loyal [65]. Therefore, gamification features have a positive impact on CE if they have a satisfied experience. In this respect, the third hypothesis is predicted that:

**H3:** There is a positive relationship between gamification features and CE considering the mediating role of CX.

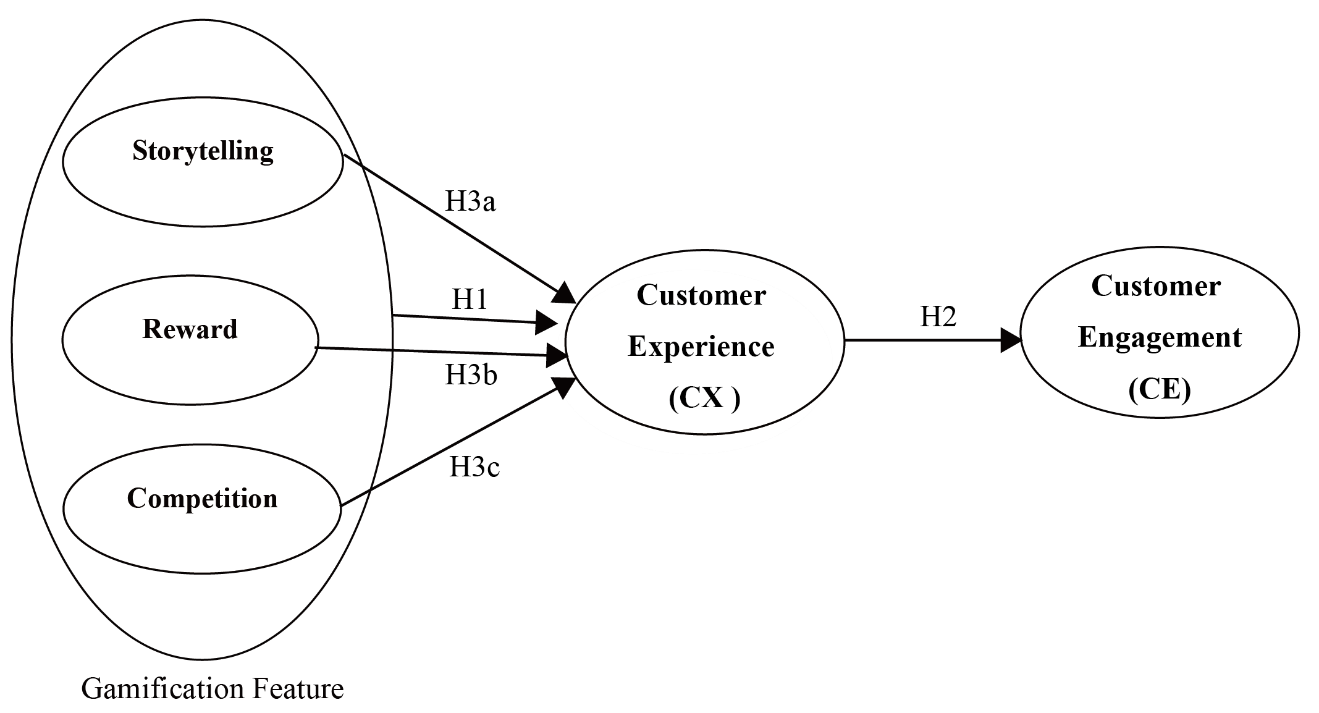
**H3a:** There is a positive relationship between storytelling and CE considering the role of CX.

**H3b:** There is a positive relationship between reward and CE considering the mediating role of CX.

**H3c:** There is a positive relationship between competition and CE considering the mediating role of CX.

1. Conceptual structure

The purpose of this study is to discuss the impacts of different gamification features’ on CX and CE on Amazon’s website.  Amazon is one of the most famous multinational E-commerce company and platform that provides a variety of products on its website.

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**Figure 1.** The conceptual model

**Sample and Experimental procedure**: Our sampling method is convenience sampling. 200 students from one of the famous universities of the Middle East, Azad University of the United Arab Emirates (UAE) have considered. The important point is that these students must previously purchase at least one time from Amazon and get familiar with this big online shop. Then, they were randomly exposed to three gamification scenarios. For getting better results, they participated in this experiment for partial course credit. This experiment consisted of 200 subjects, of whom 49.2 percent were female, and 50.8 percent were male.

In this study, we treat gender as a control variable because it was not our interest to discuss it and it was equally considered. In terms of age, 18 percent were under 18 years old, 72 percent were between 20 and 30 and 10 percent were above 30. We divided participants into four 150-member groups. 150 participants were randomly exposed to 3 gamification features and for each scenario, 50 respondents randomly were considered (Storytelling, Reward, and Competition) while 50 other participants were not exposing to any scenario of gamification.

After exposing to these gamification scenarios, all participants were asked to complete the questionnaire concerning CX and CE. After completing the study, participants were debriefed and thanked for their participation.

1. METHODOLOGY

To explore the hypotheses, we conducted a scenario-based Quasi-experimental design. Experiment 1 shows the different impacts of gamification features on CX at four different conditions. The following manifestation illustrates these scenarios. In this experiment, we consider 4 conditions as below: 150 participants were randomly exposed to three gamification scenarios and 50 respondents were not exposed to any gamification scenario.

Imagine that you want to buy some digital or non-digital products from Amazon website:

*Condition 1: Scenario 1(Immersion feature: Storytelling):* Imagine that you open Amazon’s website and see a video on the landing page which describes history and story of the founding of Amazon as the following:

*Jeff Bezos quit his job at an investment bank in 1994 and moved to Seattle, Washington, to open a virtual bookstore.* [*He*](https://en.wikipedia.org/wiki/Jeff_Bezos)*founded Amazon from his garage in*[*Bellevue*](https://en.wikipedia.org/wiki/Bellevue,_Washington)*, Washington, on July 5, 1994. Working out of his garage with a handful of employees, Bezos began developing the software for the site, which he called Amazon.com. It sold its first book in 1995.*

*Amazon first started as an online marketplace for books but expanded to sell electronics, software, video games, apparel, furniture, food, toys, and jewelry. In 2015, Amazon surpassed*[*Walmart*](https://en.wikipedia.org/wiki/Walmart)*as the most valuable retailer in the United States by*[*market capitalization*](https://en.wikipedia.org/wiki/Market_capitalization)*. In 2017, Amazon acquired*[*Whole Foods Market*](https://en.wikipedia.org/wiki/Whole_Foods_Market)*for US$13.4 billion, which substantially increased its footprint as a physical retailer. In 2018, its two-day delivery service,*[*Amazon Prime*](https://en.wikipedia.org/wiki/Amazon_Prime)*, surpassed 100 million subscribers worldwide.*

*Condition 2: Scenario 2 (Achievement feature: Reward):* Imagine that you open Amazon website and suddenly, in the early moments, you see an announcement which represents that you can obtain 3%-5% off on your purchase from its store and 1%-2% off on every purchase you have in gas stations, restaurant and drug stores using Amazon Rewards Visa (both on and off Amazon.com).

*The Amazon Rewards Visa Signature Card is a cashback rewards credit card designed for frequent shoppers of Amazon.com and Whole Foods Market.*

*Condition 3: Scenario 3(Social feature: Competition):* Imagine that you open Amazon website and suddenly, in the early moments, the video is embedded on the landing page which describes that Amazon has designed and implemented a new online competition, whose benefits will be donated to the cancer children. The important thing you can do as a member is to participate in this competition and try to win or get higher points. Also, share it with your friends and like it.

*Condition 4: No scenario:*Finally, the remaining 50 respondents were not exposed to any gamification scenario.

**4.1 Measures**

Immediately, after being informed by 3 different scenarios and 4 conditions, we asked participants to respond to the questionnaire. Using established multi-item scales, we surveyed with two primary constructs of CX and CE.

All the items used a 5- point Likert scale (1 = strongly disagree, 5 = strongly agree). The used scales explain more than 60% of the variance and achieve a Cronbach’s alpha value greater than 0.7. CX was measured with a 19-item scale developed by Verleye [51]. This measure captures the four dimensions: social (5 items; α = .916), pragmatic (6 items; α = .886), cognitive (5 items; α = .849), and hedonic (3 items; α = .957). CE was measured using a four-item Likert scale (α = .732) developed by Kumer and Pansari [39].

**Table 1:** Measurement Model Evaluation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **constructs** | **Items** | **Mean** | **SD** | **Loading** | **Cronbach’s alpha** | **CR** | **AVE** |
| 1 | Hedonic dimension of CX:  Hedonic experience is known as a kind of experience that customers have when getting pleasurable benefits [13] | It was a pleasant experience. | 2.926 | .707 | .950 | α = .957 | .96 | .88 |
| 2 | It was fun | 2.663 | .864 | .770 |  |  |
| 3 | I enjoyed it. | 2.557 | .883 | .810 |  |  |
| 4 | The cognitive dimension of CX: Cognitive experience is underscored by customers' expectations about product information [13] | I can improve my skills. | 2.829 | .853 | .920 | α = .849 | .82 | .54 |
| 5 | I gain new knowledge/expertis | 2.657 | .902 | .940 |  |  |
| 6 | I can test my capabilities. | 3.262 | .793 | .860 |  |  |
| 7 | It allows me to keep up with new ideas and innovations. | 3.157 | .832 | .920 |  |  |
| 8 | It allows me to come up with new ideas. | 2.927 | .868 | .810 |  |  |
| 9 | The social dimension of CX: social dimension is known as being able to connect with other people [13] | The interaction was pleasant. | 2.820 | .789 | .960 | α = .916 | .90 | .63 |
| 10 | I was able to connect with other people. | 2.591 | .823 | .760 |  |  |
| 11 | I can make others aware of my knowledge and ideas. | 2.865 | .793 | .770 |  |  |
| 12 | I can make a good impression on other people. | 3.256 | .878 | .690 |  |  |
| 13 | I meet others with whom I share similar interests. | 3.127 | .902 | .910 |  |  |

**Table 1:** Measurement Model Evaluation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **constructs** | **Items** | **Mean** | **SD** | **Loading** | **Cronbach’s alpha** | **CR** | **AVE** |
| 14 | Pragmatic dimension of CX: Pragmatic dimension is defined as a solution in the form of benefits better meeting personal needs [36] | I got compensation according to the effort made. | 2.667 | .912 | .840 | α = .886 | .87 | .56 |
| 15 | I got a fair return. | 2.856 | .845 | .930 |  |  |
| 16 | I got an appropriate reward in return for my input. | 3.012 | .895 | .720 |  |  |
| 17 | I had control over the quality. | 2.957 | .782 | .870 |  |  |
| 18 | The quality was in my hands. | 2.556 | .793 | .690 |  |  |
| 19 | I had an impact on the degree to which my preferences were met. | 3.156 | .813 | .775 |  |  |
| 20 | CE: It is the connection customers develop with communities, and it encompasses four types of consumer behaviors, i.e., purchasing, incentivized referrals, social influence and knowledge/feedback sharing [39]. | I benefit from following this community's rules. | 3.297 | .873 | .917 | α = .732 | .95 | .78 |
| 21 | I am motivated to participate in this community's activities because I feel better afterwards. | 2.925 | .824 | .940 |  |  |
| 22 | I am motivated to participate in this community's activities because I am able to support other members. | 2.657 | .785 | .895 |  |  |
| 23 | I am motivated to participate in this community's activities because I can reach personal goals. | 3.125 | .865 | .850 |  |  |

1. RESULTS

T-test was first conducted for each condition to determine the effect of gamification features on CX and CE. For each scenario, P-values are less than 0.05 indicating statistical significance, which has shown in Table 2. For H1a, P=0.004<0.05, for H1b P=0.000<0.05 and for H1cP=0.000<0.05 indicating statistical significance.

Based on the results, there is a positive relationship between gamification factors and CX. Therefore, H1, H1a, H1b, and H1c are supported.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 2:** Independent Samples Test for gamification feature of storytelling and CX  (H1a, H1b, and H1c) | | | | | | | | | |
| Equal variances assumed  Equal variances not assumed | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| **H1a** | .613 | .435 | -2.910 | 98 | .004 | -.39500 | .13573 | -.66435 | -.12565 |
| -2.910 | 97.994 | .004 | -.39500 | .13573 | -.66435 | -.12565 |
| **H1b** | .113 | .737 | -8.135 | 98 | .000 | -1.03500 | .12723 | -1.28747 | -.78253 |
| -8.135 | 96.396 | .000 | -1.03500 | .12723 | -1.28753 | -.78247 |
| **H1c** | .261 | .611 | -4.035 | 98 | .000 | -.55500 | .13755 | -.82797 | -.28203 |
| -4.035 | 97.886 | .000 | -.55500 | .13755 | -.82797 | -.28203 |

ANOVA post-hoc comparison was conducted to compare the effect of different gamification factors (storytelling, reward, and competition) on CX. As table 4 shows, there is a significant difference between the storytelling feature and reward factor (0.000<0.05) and because lower bound and upper bound are both negative, storytelling has a less significant effect than the reward factor of gamification.

Moreover, there is a significant difference between the competition feature and the reward factor (0.001<0.05), and as lower bound and upper bound are both negative, competition has a less significant effect than the reward factor of gamification.

Finally, there is a significant difference between the storytelling feature, and the reward factor (0.000<0.05) and because lower bound and upper bound are both positive, reward has a more significant effect than the storytelling factor of gamification. Therefore, H1d and H1f are both confirmed. In addition, as Table 4 presents, the results of both statistical methods of Tukey and LSD are the same. Thus, achievement-related feature of gamification (reward) has a stronger positive effect than immersion (storytelling) and social (competition) related features on CX. Also, social-related features of gamification (competition) have a stronger positive effect than immersion-related (storytelling) but a weaker positive effect than achievement-related features (reward) on CX.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 3:** ANOVA result and multiple comparisons between gamification factors with Tukey Analysis  **CX** | | | | | |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 11.093 | 2 | 5.547 | 12.742 | .000 |
| Within Groups | 63.990 | 147 | .435 |  |  |
| Total | 75.083 | 149 |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Factors | Factors | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | STORY | COMPETE | -.16000 | .13196 | .448 | -.4724 | .1524 |
| REWARD | -.64000\* | .13196 | .000 | -.9524 | -.3276 |
| COMPETE | STORY | .16000 | .13196 | .448 | -.1524 | .4724 |
| REWARD | -.48000\* | .13196 | .001 | -.7924 | -.1676 |
| REWARD | STORY | .64000\* | .13196 | .000 | .3276 | .9524 |
| COMPETE | .48000\* | .13196 | .001 | .1676 | .7924 |
| LSD | STORY | COMPETE | -.16000 | .13196 | .227 | -.4208 | .1008 |
| REWARD | -.64000\* | .13196 | .000 | -.9008 | -.3792 |
| COMPETE | STORY | .16000 | .13196 | .227 | -.1008 | .4208 |
| REWARD | -.48000\* | .13196 | .000 | -.7408 | -.2192 |
| REWARD | STORY | .64000\* | .13196 | .000 | .3792 | .9008 |
| COMPETE | .48000\* | .13196 | .000 | .2192 | .7408 |
| \*. The mean difference is significant at the 0.05 level. | | | | | | | |

The overall regression model yields significant statistics (F=17.650, sig=0.000<0.05). In this model, CE was considered as a dependent variable (Beta=0.286, t=8.161, sig=0.000<0.005), which means that CX has a significantly positive effect on CE as shown in table 5. The impact of CX on CE is significant and positive. Therefore, H2 is supported.

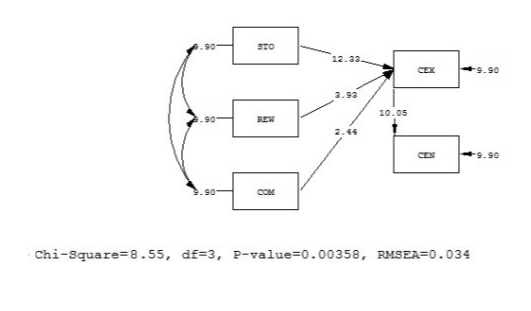
Taken together, this study confirms the positive impacts of gamification on CX and CE. It indicates that the reward element has more positive implications than the storytelling and the competition element has a more positive implications than storytelling. Ultimately, all hypotheses are supported.

**Table 4:** Analysis of regression

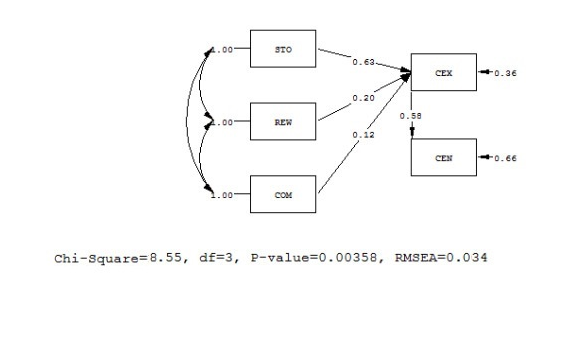
|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **b. Dependent Variable: CE** | | **F** | **df** | **Sig.** | **Independent variable** | **Beta** | **t** | **Sig.** | **R** | **R Square** | **Adjusted R Square** |
| 1 | CE | 17.650 | 199 | .000b | CX | .286 | 8.161 | .000 | .286 | .082 | .077 |
|  |  | 4.201 | .000 |  |  |  |

For investigating the mediating role of CX on gamification features and CE, H3, the path model approach is adopted. Path model approach employs the goodness-of-fit indices provided by covariance-based SEM using LISREL 8.70. The result is shown in Figure 2 and Figure 3.

Based on figure 2 and 3, the goodness of fit indices suggests the data fit the model well (χ2=8.55, df = 3, p = .00358; χ2/df = 2.85, goodness-of-fit index (GFI) = .95, root mean square error of approximation (RMSEA) = .034, normed fit index (NFI) = .95, comparative- fit index (CFI) = .95). Analysis of result indicates that the model fit with the data, which means all hypotheses are confirmed, and results of LISREL are aligned with regression results. All path coefficient is significant and had a factor loading great than 0.05 and standard t-values (>1.96) at a significance level of 0.05.



**Figure 2:** Research model in T-value mood



**Figure 3:** Research model in standard value mood

H3a and H3b and H3c are supported as they suggest a positive association between storytelling (β= 0.63, t=12.33), reward (β= 0.20, t=3.93), competition (β= 0.12, t=2.44), with CX and its impacts on CE (β= 0.58, t=10.05).

Finally, H3 which predicts a positive relationship between gamification features, CX and CE is statistically supported. After path analysis for calculating the significance of the mediating role of CX the Sobel test is applied.

The Sobel test has been a traditional method of testing the significance of mediation effects. The Sobel test is used in this study because it is the most widely employed in the management and marketing field.

The Sobel formula requires the unstandardized regression coefficient (a) and the standard error (sa) of the relationship between the independent variable a, and the unstandardized regression coefficient (b) and standard error (sb) of the path from the mediator to the dependent variable. As calculated based on Sobel Test formula and according to LISREL output, the static of the Sobel test for mediating variables of CX on storytelling, reward and competition are shown in Table 6. All Sobel’s coefficients are significant and standard t-values (>1.96) at a significance level of 0.05.

**Table 5:** Model results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hypothesized path** | **Research Model** | | | |
| **β** | **t-value** | **Result** | **Sign** |
| H3a- There is a positive relationship between gamification features and CE considering the mediating role of CX | 0.63 | 7.408 | confirmed | positive |
| H3b- There is a positive relationship between reward and CE considering the mediating role of CX | 0.20 | 3.685 | confirmed | positive |
| H3C- There is a positive relationship between competition and CE considering the mediating role of CX | 0.12 | 2.143 | confirmed | positive |

1. DISCUSSION AND CONCLUSION

The pandemic The Covid -19 negatively impacted the marketing activities and economy [1]. Also, it has fostered digital activities [7]. In this respect, adopting new ways to tackle these problems seems necessary.

Gamification implies the design of systems and products in a way to give the same experience of games to the customers [13]. It is increasingly applied as an essential part of today’s service as it improves various CX in online retailing communities and websites such as Amazon. Understanding the impacts of different gamification features is critical for successful gamification. Although the influence of gamification on CX is undeniable, it has not been addressed so far in gamified online retailing studies and papers. Despite the recent researches and studies, the efficiency of the gamification mechanism is not evident as much as the investigations were conducted descriptively and conceptually, especially in the marketing field, which is still in an early stage and more experimental researches are needed. Moreover, it is well noted to explain that no research has been found in this field that demonstrates the impacts of gamification features on CE and CX and this research has been carried out for the first time in this area on one of the biggest online shopping platforms (Amazon).

Our main contribution is to elucidate how different features of gamification can lead to benefits for an online shopping website. Specifically, this paper sheds light on the implications and the impacts of other features of gamification on CX and CE, which is a widely targeted variable for marketing managers. CX plays a vital role in marketing and entrepreneurial performance [18, 19, 21]. Moreover, engaged customers have higher levels of positive emotions, satisfaction, loyalty, and usually demonstrate beyond-purchase activities [64]. One of the attractive aspects of this study is offering a framework for CE. The results of this study imply that there is a positive chain of associations between gamification, engagement, and experience.

Our research suggests that gamification can be a helpful method for promoting CX and CE. Our study confirms the positive impacts of gamification on CX and CE. Accordingly, H1, H2 and H3 are supported. In addition, all dimensions of gamification are positively associated with the CX and H1a, H1b, and H1c is confirmed. While, Achievement-related feature of gamification (reward) has a stronger positive effect than immersion (storytelling) and social (competition) related features on CX, the competition has a stronger positive effect than storytelling but a weaker positive effect than the reward. It indicates that the reward has more positive impacts than the storytelling and competition. Therefore, H1d and H1f are supported. Also, the mediating effect of CX on the relationship between gamification features and CE are confirmed (H3). It is essential to emphasize that all gamification elements and features are not equally attractive and practical. Customers get influenced by some of them more than the others, such as rewards and competitions, which have more significant impacts on CX.

Another attractive aspect of this result is the determinant impacts of reward elements on CX. The role of achievement-related features, specifically rewards, on marketing and CX, are undeniable and many kinds of research highlighted this significance [50, 12]. Aligned with previous studies, this paper also confirms the crucial role of reward on CX. Accordingly, marketers, service managers, and retailers should utilize achievement features of gamification, specifically reward, as a strategic tool to increase the competitive advantages of their companies. In this respect, Bhattacharya et al. (2019) explored the impact of CX on online shopping. The results showed that CX could significantly impact customer satisfaction, online purchase intention, and business outcomes [33].

One of the strengths of this study is to examine the impacts of other elements such as competition and storytelling. The vital role of competition is obvious; however, it should be applied carefully. Despite the numerous investigations lauding the encouraging effect of competition on customers, there is a number of opposing views emphasizing on the detrimental impact of competition on users and discouraging them [22].

The findings of this study offer several managerial implications for the effective use of gamification elements, specifically reward and competition factors. These results challenge the managerial practices and call on managers to vary the application of gamification elements according to their impacts on CX and inspire them to utilize these elements to improve CX.

The findings can pursue online retailing companies to increase CE and by applying gamification strategies guide their management to bring a better experience for their customers. Not only can organizations embed gamification elements in their websites, but the use of these factors and features can be a viable option for engaging customers and promoting the organization’s marketing strategies.

Future studies may also consider other moderating factors such as hedonic value or utilitarian value along with other moderating factor such as age.

This research contributes to the understanding of gamification features, which are still in a nascent stage. To develop categories of gamification using Quasi-experimental methods elements, we map the existing framework of three gamification factors. This finding leads to this belief that gamification has the great potential to add value to organizations. Moreover, many marketing domains can adopt gamification as a way to increase CE and strengthen a company’s brand.

1. LIMITATIONS AND FUTURE RESEARCH

This study has a few limitations that should be acknowledged, and these limitations offer avenues for future research. First, we relied upon a convenience sample of students. It would be valuable to generate this model and test findings with a broader range of samples to expand the generalization. Secondly, this research was conducted under the effect of The Covid -19 on the marketing activities of enterprises. So, it would be interesting if it is investigated in a normal condition. Also, further research is needed to analyze other gamification factors such as avatars, quests and challenges, badges, points, levels and, etc. For example, it would be more interesting to see how consumers of Amazon or other online communities and responses may vary toward receiving different gamification factors such as fantasy, fun, curiosity, and challenges.

Accordingly, we highly recommend additional investigations on gamification factors and features such as fun, goal, etc. in different environments and industries to gain a deeper understanding of the emergent concept of gamification. The framework of three gamification elements presented in this study provides a starting place for future gamification research in different contexts.

Moreover, it would be helpful to examine how the measured constructs in our study can be applied in different European countries since the country’s culture may play a crucial role in the way consumers engage with the website and online communities.

Ultimately, due to the nature of the Quasi-experimental method, future research confirming or augmenting the findings of combining quantitative methods is recommended. In other words, to achieve a complete understanding of gamification, a suitable research design should capture both quantitative and qualitative data sources. Many studies on this area are mainly focused on quantitative, and qualitative data are either marginalized or absent and relying on a mixed-method would hold value for both theory and practice.

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