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EXAMINING THE CONSEQUENCES OF GAMIFICATION ON CONSUMER BRAND ENGAGEMENT

Nouran El Shaboury, MBA
Deputy Manager at Banque Misr
E-mail: nouran.salaheldin@gmail.com

Hamed M. Shamma, PhD
The American University in Cairo
E-mail: shamma@aucegypt.edu

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Abstract

Recently companies started to use gamification in their businesses by applying techniques and concepts from games to their marketing strategies. Gamification concept can be applied to actual games, virtual trophies, points, and vouchers. The idea is that marketing strategies and activities that mirror games are better at engaging customers. Accordingly, it was important to study the relationship between gamification in marketing and consumer brand engagement in Egypt. Through reviewing the literature, there were several gamification components and mechanics such as points, badges, vouchers, progress bar, levels, leaderboards, social engagement, collecting resources, and competition between players. Different gamification frameworks have described the gamification elements. Gamification pyramid was the most common by many researchers. For consumer brand engagement, it was measured using three dimensions named cognition, emotional and behavioral dimensions. A descriptive study was conducted to examine the relationship between gamification elements and consumer brand engagement. Capitalizing on Gatautis et al. (2016) model, which studied the relationship between gamification elements and consumer brand engagement, a new modified framework, was introduced. Gamification elements were divided to four mechanisms named progress, rewards, social, and restrictions mechanisms. The research studied the relationship between each mechanism as an independent variable and consumer brand engagement as a multi-dimension' dependent variable. Quantitative data was collected by distributing an online survey on 152 respondents through online channels. Data was analyzed using SPSS software, providing the reliability, descriptive, correlation and regression analysis. The analysis of the results showed that there is positive relationship between three of the gamification mechanisms and consumer brand engagement. While for the restrictions' mechanism; it showed in-significant relationship. This research gives insights to managers and companies that would like to apply gamification, targeting its end users to increase their engagement towards the brand.

Introduction

Recently, companies started to search for new different ways to engage its customers and grab their attention towards their brand, products, or services. Capitalizing on the concept that people love the rewards, leveling up, and competing with each other, they started to search for gamification activities to draw their attention (Simms, 2019). They spiced up their marketing content using new ways till providing extraordinary client experience in order to build a positive picture of their brand (Cinema8, 2020). Loyalty programs became far more virtual and increasingly game based. Companies started to reward its customers on their loyalty in a fun and captivating way (Simms, 2019). Therefore, companies worldwide started to use gamification, which is the application of game thinking in non-gaming context, to connect its brand with the target consumers. Companies applied different gamification techniques in order to increase the consumer engagement, brand awareness, and brand loyalty (Vitkauskaitė& Gatautis, 2018; Xi & Hamari, 2019).This is applied by using gamification techniques in many ways such as loyalty programs including badges and points, friendly competitions like McDonalds monopoly game, and leaderboards such as NikePlus app (Simms, 2019).

Gamification is considered as an extremely interesting method to be implemented in the marketing strategies and generate higher revenues (Cinema8, 2020). The gamification market was estimated to be worth $5.5 billion in 2018 (Lynkova, 2020). Digital marketing world forum has reported that 60% of consumers said that they would likely buy from a brand if they are engaged into a game related to it (Simms, 2019). Gamification may increase the newly registered users by 600% (Lynkova, 2020). Moreover, researchers proved that gamification has been widely used for many purposes such as motivation, education of consumers and employees, innovation management and personal development (Vitkauskaitė & Gatautis, 2018). It was reported by Review42 that 72% of employees claim that gamification inspires them to work harder (Lynkova, 2020).

Companies gamify their activities using different combination of game elements. These game elements are divided into: game components, mechanics and dynamics. Examples of game elements are: points, leaderboard and badges (Werbach & Hunter, 2012). Many authors suggested that these three game elements have the highest impact on consumer behavior; however gamification elements are not limited to these elements (Gatautis, Banyte, Piligrimiene, Vitkauskaite, & Tarute, 2016).

Consumer brand engagement is considered a recent topic in the marketing literature. It is the level of a customer's motivational, brand-related, and context-dependent state of mind characterized by specific levels of cognitive, emotional, and behavioral activity in brand interactions (Vitkauskaitė & Gatautis, 2018).

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These three dimensions: cognitive, emotional and behavioral are the most commonly used in the scientific literature related to consumer brand engagement. Consumer brand engagement also is perceived as the bond between brand and consumers, according to the efforts done related to the brand, in order to activate consumers through interactions, rewards and shared values (Vitkauskaitė& Gatautis, 2018). It was reported that an engaged customer spends 60% more per transaction and deliver three times the value more than un-engaged customers over a certain period of time (Annexcloud, 2020).

Research Problem

With the new changes happening nowadays on the technology, business and culture levels, marketing is being affected. Marketers have to step into a new territory in order to increase the ROI of their businesses. Each marketer is looking for new innovative ways, rather than using the traditional ones, in order to target his customers. Differentiation between campaigns becomes difficult. Marketers started searching for new ways to build a long-term relationship with their target customers and influence their decision making. By searching for all the required elements, to be included in one stop shop, to achieve a successful marketing campaign and at the same time save marketers hassle, time and money, gamification concept could avail all these together. Capitalizing on the psychology behind the traditional games, when customers play a game and earn a reward or accomplishment, a positive emotion is linked directly towards the game. Same shall be used while gamifying business activity, customers may feel positive towards the brand that they got engaged in its game. Accordingly, this research will tackle the question that if companies gamify their business activities, whether it is a product or a service, will it be linked to consumer brand engagement or no?

Research Objective

Although there are several studies that explain how the gamification elements increase the motivation of consumers worldwide, empirical based researches on the relationship between gamification elements and consumer brand engagement are missing. Moreover, researchers have further discussed the gamification elements as whole, without categorizing them into modules, or highlighting the best approach that could be practically used by companies when applying gamification. To clarify more, the aim of this paper is to study the relationship between gamification and consumer brand engagement in Egypt. This is done by classifying the gamification into four modules: Progress, rewards, social and restrictions mechanisms, and study whether these is a relationship between each gamification mechanism and consumer brand engagement in the Egyptian market or no. The assumptions will be tested through quantitative analysis using SPSS software according to the data collected through online surveys only, due to COVID-19 global impact and social distancing.

Literature Review

Gamification Definition

Gamification was defined as "the use of game design elements in non-game contexts" (Lucassen & Jansen, 2014, p. 2). Long time ago, gamification has been used in other non-traditional forms in non-game contexts (Vitkauskaitė & Gatautis, 2018). Later it was described as "Nitro" platform. Others described gamification as a process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation (Huotari & Hamari, 2012). Others defined it as the art and science of turning your customer's everyday interactions into games that serve your business purposes (Yang, Asaad, & Dwivedi, 2017). Gamification was also defined as "A persuasive technology that attempts to influence user behavior by activating individual motives via game-design elements" (Blohm& Leimeister, 2013).

Gamification has more than one goal such as increasing engagement, brand awareness, loyalty, motivation which serves as the primary goals for consumer marketing (Lucassen & Jansen, 2014). The biggest noticeable difference between gamification and traditional existing games is that the sustainability after "Engagement" has occurred and "Reward" has been delivered (Park & Bae, 2014). Moreover, the campaign included gamification shall be executed quite well in order to achieve the desired goals (Lucassen & Jansen, 2014).

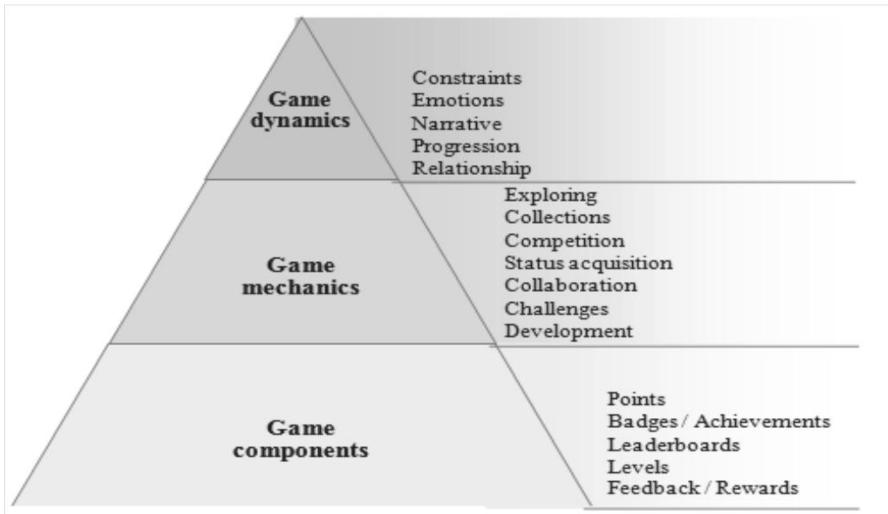
Gamification Elements

Gamification defines a number of process, systems and desired principles in order to motivate engage and influence individuals, groups and communities to drive intentions and produce the anticipated effect (Yang et al., 2017). Considering the above-mentioned definitions of gamification, it can be defined as the use of game elements such as mechanics, dynamics and game components in daily non-game context (Vitkauskaitė & Gatautis, 2018).

Gamification Pyramid

This framework of gamification elements describes gamification framework into three levels: game dynamics, game mechanics, and game components. (Gatautis et al., 2016). Even though there is no unique approach to classify the elements of the gamification as there are different opinions in game elements, most of the researchers agreed on the below pyramid presented by Werbach and Hunter (2012).

Figure 1 *Gamification Pyramid (Source: Werbach & Hunter, 2012)*



Game Components

Gamification components function is to meet the customer's needs and drive the desired behavior (Gatautis et al., 2016). Game mechanics include various building blocks to gamify a main offer such as scoring systems and badges. Game dynamics explains the effects of these mechanics on the user experience over time. Different dynamics could be caused by singe mechanics, corresponding to different motives (Blohm& Leimeister, 2013). The following are the most gamification components that have been researched by Gatautis et al. (2016), Kankanhalli, Taher, Cavusoglu, and Kim (2012), and Muangsrinoon and Boonbrahm (2019).

Gamification components are closely associated with game mechanics and dynamics. *Points:* It is considered a numerical representation for all the activities done by the player during the game. *Badges*: It represents the achievements that the player reached according to his participation in the game and considered as visual achievements. *Leaderboards*: It is a dashboard representing the list of players, ranked according to their performance during the game and allows the users/players to compare their own performance with others. *Levels*: It represents the player's progression. Player collects points or does a certain action to elevate to certain levels and reach advanced states. *Rewards*: Benefits or (game) assets given to the player due to his participation in the game. It could be represented as virtual goods as well, in the form of game assets. *Feedback*: It provides the player with a feedback indicating his performance during the game.

Game Mechanics

Regarding to gamification mechanics, it was highlighted by researchers that it could be the most confusing part. Game mechanics includes all the gamification components together with the mechanics' part. Zichermann and Cunningham (2011) describe gamification "As the process of using game thinking and game mechanics to engage audiences and solve problems" (p.43). As per Werbach and Hunter (2012), game mechanics is "the processes that drive users to engage with the content and continue to drive the action forward" (p.18). Others defined mechanics as "The base components of the game such as its rules, player actions, and data structures and algorithms, that govern player behaviors" (Kankanhalli et al., 2012, p. 5). Researchers also mentioned that game mechanics motivate players to play longer, solve more missions and fulfill goals (Muangsrinoon& Boonbrahm, 2019). The following are the most distinguished game mechanics by the researchers Gatautis et al. (2016). *Exploring:* Customers have the option to explore the game world. *Collection*: Customers have the ability to collect game resources or useful values during the game. *Competition*: Customers can compete since they are players in the game. They can win or lose, depends on the game rules*. Status Acquisition*: Customers will have the option to be elevated to higher levels as per certain conditions. *Collaboration*: Players can collaborate together to reach a certain goal. *Challenge:* The game can contain quizzes or challenges that those customers or players have to pass and exert efforts. *Development*: Players can acquire new knowledge and skills through participating in the game and as per the conditions set.

Game Dynamics

Although game mechanics cover important parts in the gamification techniques, they are considered to be limited. Consumers have different motivations which lead them to behave differently. Accordingly, some mechanics can work with one group of consumers and may not work with another group. Therefore, game dynamics take a further milestone and boost consumers to pursue further objectives through affecting consumer emotions (Gatautis et al., 2016). As mentioned by Werbach and Hunter (2012), game dynamics "encompasses the big picture aspects of a gamified system. Game dynamics main role is to enhance the user experience. As per the pyramid, when a certain goal is achieved, game dynamics step in (Gatautis et al., 2016).The following are the most important game dynamics as per the authors Gatautis et al. (2016), and Julius (2013).

Constraints: It is presented or implemented in most of the games, where it limits player's freedom in order to take decision towards certain problems such as certain restrictions or forced withdrawals.

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Emotions: Games create different types of emotions such as curiosity, competitiveness, frustration and happiness. The emotion of fun is very important in games together with the experience of joy and accomplishment that keeps people playing.

Narrative: It makes the game consistent, constant and having a continuous storyline. Narrative doesn't have to be explicit; it can be implicit like the story line of the game.

Progression: It is represented in player growth and improvement. It is the idea of giving the players the sense of moving forward.

Relationships: It refers to social interaction, feelings of friendship, status and altruism. Relationships describes the interaction of players together, whether friends or teammates.

In the gamification activity, the designer creates the mechanics and the dynamics shall be the result of how the player or the consumer interacts with the mechanics. For example, "In poker, the mechanics represents the shuffling, trick, taking and betting. The dynamics that can emerge from this are cheating, bluffing and bragging" (Wiklund & Wakerius, 2016, p. 29). Although there are other frameworks that described the game elements, gamification pyramid is still widely used and the most common one. It links the game elements through three levels: components, mechanics and dynamics. Many researchers consider that game components and mechanics as the most important and effective gamification techniques (Gatautis et al., 2016).

Consumer Brand Engagement Definition

Consumer brand engagement has been defined as "high relevance of brands to consumers and the development of an emotional connection between consumers and brands" (Lucassen & Jansen, 2014, p.3). Others described customer engagement as enhanced predictive and explanatory power of focal consumer behavior outcomes, including brand loyalty (Gatautis et al., 2016). It was also defined as the level of a customer's motivational, brand-related, and context-dependent state of mind characterized by specific levels of cognitive, emotional, and behavioral activity in brand interactions (Vitkauskaitė & Gatautis, 2018). Consumer brand engagement can be seen as a multi-dimensional psychological state due to interacting with a certain brand, including emotional, cognitive and social engagement (Xi & Hamari, 2019).

Consumer engagement is characterized by dynamic iterative processes and behavioral indicators such as: writing on social media, participating in events related to the brand, providing feedback. Behavioral indicators are the key outcomes of gamification activities and increase organizational value (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2016). Consumer engagement behavior could go beyond transactions, as a result from motivational drivers including word of mouth, customer to customer interactions or blogging activity (Hollebeek, Juric, Ilic, & Brodie, 2011).

Consumer Brand Engagement Benefits

Consumer engagement was proven to be beneficial in generating understanding between firms and consumers in virtual context. Researchers mention that customer engagement is a psychological process that drives the customer to the loyalty (Hollebeek et al., 2011). Academics have defined four principle categories of benefits due to customer engagement: First, utilitarian benefits on all sides such as: cognitive, functional and problem-solving benefits. Second, hedonic benefits encompassing entertainment value. Third, benefits to self-esteem such as self-enhancement. Fourth, social benefits (Harwood & Garry, 2015).Therefore, when consumers get engaged in a certain action, they will directly or indirectly benefit themselves, the firms and others as well.

Consumer Brand Engagement Dimensions

Customer engagement reflects the cognitive, emotional and behavioral outcomes related to an interactive experience" (Harwood & Garry, 2015). Accordingly, these dimensions will be explained in details based on Vitkauskaitė and Gatautis (2018) and Hollebeek et al. (2011) as the following:

Cognitive: this engagement dimension object level is "related through processing, concentration and interest in specific object. Cognitive reflects the level of concentration towards the brand.

Emotional: this dimension is "a state of emotional activity also known as the feeling of inspiration or pride related to and caused by engagement object".

Behavioral: this dimension is defined as "a state of consumer behavior related to engagement objects and understood as an endeavor, and the energy given for interaction. Behavioral dimensions are defined as "The customer's level of energy and mental resilience in interacting with a focal engagement object and a two-way communication between a focal engagement subject and object.

Consumer brand engagement can be considered as uni-dimensional or multi-dimensional construct. In case it is uni-dimensional, many academics considered the cognitive to be the main dimension and others considered the emotional to be the most common dimension. But in general, the three dimensions: cognitive, emotional and behavioral were the most commonly used via different literature reviews and defines the consumer brand engagement (Gatautis et al., 2016).

Relationship between Gamification and Consumer Brand Engagement

Gamification has been discussed as an interactive system, having selected game elements without being a fully-fledged game as an end product. This interactive system main aim is to motivate end users and engage them through the game elements and mechanics (Seaborn & Fels, 2015). Engagement was considered as one of the main goals of gamification (Lucassen & Jansen, 2014). The following section provides further examples about gamification applied by many companies using different methods in order to increase the consumer engagement towards the brand.

Gamification Examples

Gamification has been used since more than 7 years ago by some companies. Over 70% of Forbes Global 2000 companies surveyed in 2013 said that they used gamification for marketing purposes and customer retention (Park & Bae, 2014). Below are samples of companies applied gamification in its businesses:

- ***Starbucks*****.** In 2010, Starbucks provided people who checked-in at many locations' customs foursquare badges. It also offered discounts to customers who became mayors of an individual store. Customers can gain stars with every purchase and exchange the stars with free values such as foods and drinks from Starbucks. The game includes three levels, next levels are open to those who visit a Starbucks store(Hofacker, Ruyter, Lurie, Manchanda, & Donaldson, 2016).

- ***Vodafone Egypt red points program*****.** Vodafone Egypt offered an exceptional experience for its Red customers, postpaid tariff that customers subscribe to. Red customers can collect points on purchases from a wide range of merchants and also when paying their Vodafone red bill. Customers collect points with a certain accumulation factor and can redeem these points from a huge network of merchants. Redemption occurs as per certain redemption criteria; every 20 points is equivalent to 1 EGP. Moreover, customers enjoy monthly offers, via the application, having certain discounts in a form of vouchers at certain merchants (Vodafone Egypt, 2018).

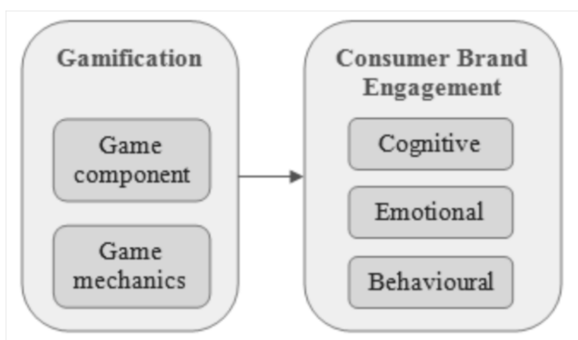
- ***Commercial international bank (CIB) bonus program*****.** CIB Bonus points program is designed exclusively to guarantee the maximum value through banking experience in Egypt. Customers get awarded with points according to a wide range of different banking products and can redeem their points by purchasing an e-voucher online from CIB website. Using the e-voucher, customers can use it a huge network of merchants (Commercial International Bank, 2020).

- ***Coca-Cola and premier league*.** A strong and innovative promotion done by coca cola, in partnership with premier league, in order to engage its customers. Encouraging customers to drink coca-cans predict the premier league matches scores and win a ticket for premier league final match. For each time the customer drinks coca-can, and then enters the code at the cap of the can on the website, customer will collect points which increases the chance to travel and watch premier league final match (Dsquares, 2020).

Gamification Model and Consumer Brand Engagement

As mentioned in the past sections, gamification pyramid is the most widely used by the researchers. It covers game dynamics, mechanic and components (Vitkauskaitė & Gatautis, 2018). Game dynamics and mechanics use game components to produce gamified activity. Game components and mechanics were considered the most important and effective gamification techniques by many researchers (Gatautis et al., 2016). Considering game dynamics were deemed and too difficult to assess. Below is a modified model on the gamification pyramid done by Gatautis et al. (2016).

Figure 2. Gamification and Consumer Brand Engagement Framework



(Source: Gatautis et al., 2016)

Gatauits et al. (2016) tried to explore how game mechanics and components are related to the consumer brand engagement, considering the three dimensions: cognitive, emotional and behavioral. Their research results concluded that cognitive engagement is the strongest, followed by emotional, then behavioral. Behavioral engagement was the weakest, indicating that consumers are quite passive in their interaction with the brand. Overall results showed that there is a positive relationship between game components and mechanics and consumer brand engagement.

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To conclude this part, in order to get the best out of the gamification, bundling of game design elements into comprehensive and IT-based, leading to global enhancement of services. Such enhancement could lead to a new cognitive, emotional and behavioral experience of the core offer (Blohm & Leimeister, 2013). Consumer brand engagement can be initiated and delivered through a mix between different game elements. Engaged customers could get other customers of similar interests. The engaged customers have tendency to be loyal and more actively participate in many brand initiatives (Vitkauskaitė & Gatautis, 2018).

Accordingly, when customers interact with certain game design elements and mechanics, customers will be more likely to have positive feelings, more enthusiasm and passion towards a specific brand. By focusing on achievement related gamification features' targeting certain goals, such as rewards or vouchers, customer requires more focusing on cognitive process. Therefore, many gamification elements are likely to be associated with cognitive brand engagement (Yang et al., 2017). As for the social game elements, it could be linked with social engagement. Moreover, for customers who get interacted with a certain brand through social media, in parallel with reviewing some information regarding this brand, they will also recommend this brand to others and increase their intention to buy. Therefore, further gamification elements impact the behavior of customers towards the brand engagement (Xi & Hamari, 2019).

Research Gap

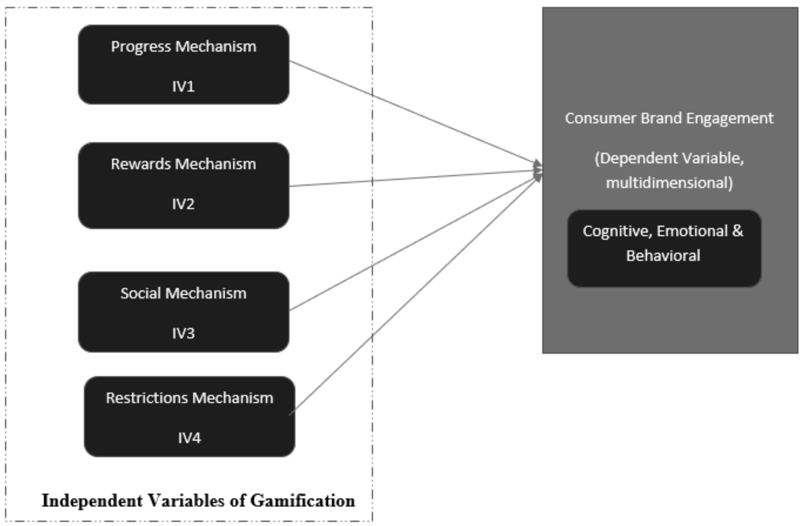
As per the literature review, although there were studies that demonstrated how gamification elements increased the customer's motivation worldwide, the empirical based research on the impact of game elements on the engagement was very limited. Moreover, these few studies discussed the relationship between gamification and consumer brand engagement globally or in other countries and not in Egypt specifically. Accordingly, the evidence of their relationship is still wanted. Therefore, this research aims to study the relationship between gamification and consumer brand engagement in the Egyptian market. Moreover, as per the literature review, most of the past researches mainly focused on the gamification elements as whole, which could be difficult to be applied practically by companies in order to use all the gamification elements. This research aims to include a breakdown of the gamification elements and study the relationship between each breakdown of the game elements and the consumer brand engagement.

Theoretical Framework and Research Hypotheses

The theoretical framework provides breakdown of game elements into four gamification mechanisms: Progress mechanism, rewards mechanism, social mechanism and restrictions mechanism. These gamification mechanisms are validated and tested, covering all the core marketing activities. They match most of the primary marketing goals, as per interviews done with many marketing executives from different marketing communications agencies worldwide (Lucassen & Jansen, 2014). Moreover, they cover the game elements including game components and mechanics proposed by Gatauits et al. (2016). Accordingly, below is the modified framework of Gatautis et al. (2016).

Figure 3

Proposed Gamification and Consumer Brand Engagement Framework



Independent Variables: The independent variables are the four gamification mechanisms.

Progress Mechanism. It allows users to flaunt their progress (Lucassen &Jansen, 2014). It includes game elements and mechanics as: points, badges and leaderboards, progress bar, levels competition to progress in levels and collection of resources (Gatautis et al., 2016).

Rewards Mechanism*.* It provides benefits/assets to the users due to their participation in the game (Lucassen & Jansen, 2014) such as prizes, monetary & virtual rewards, and skills development (Vitkauskaitė& Gatautis, 2018).

Social Mechanism. It increases the user's status impact engagement such as: helping a friend, feeling part of community, sharing game progress via social media (Lucassen & Jansen, 2014).

Restrictions Mechanism. It is a traditional game play rules that restrict the users and essential for an engaging experience such as: sources scarcity, time limit and access restrictions (Lucassen & Jansen, 2014).

Dependent Variable*.* The dependent variable is the consumer brand engagement. It is the outcome of the gamified activity. It will be a multi-dimensional construct containing the three dimensions of consumer brand engagement (Cognitive, Emotional and Behavioral).

This model could further be supported as it covers most of the gamification elements including game components and mechanics. If we look at the breakdown of each mechanism, it contains most of the game elements, mentioned in the gamification pyramid before in the literature review by Werbach and Hunter (2012). Also, it uses Gatautiset al. (2016) model and categorizing the game elements into mechanisms. So, the model produced by Gatautis et al. supports this model, as it was measuring the gamification elements, including components and mechanics as mentioned in the literature review, and its impact on consumer brand engagement. The advantage of this new model is that these mechanisms could be used as separate modules, after being tested through this research, to be included or excluded in any upcoming gamification activities used by companies. This model studies the relationship between each gamification mechanism and consumer brand engagement instead of studying the gamification as whole since no gamification project will include all of the gamification elements.

The below hypotheses were used to measure the relationship between each gamification mechanism and consumer brand engagement. They were supported using Gatautis et al. (2016) model, as each mechanism contains some gamification elements including components and mechanics, mentioned in the gamification pyramid before by Werbach and Hunter in 2012 as well. These hypotheses were tested in Egypt, to measure the gamification impact on consumer brand engagement. They aimed to answer all the corresponding research questions.

Based on the literature review, game elements such as points, leaderboards, badges, progress bar, competition between players, collection of resources are used in studies for engaging the consumer towards the brand (Vitkauskaitė & Gatautis, 2018; Gatautis et al., 2016). These game elements represent the progress mechanism.

RQ1: Is there a positive relationship between gamifying business activity using progress mechanism and consumer brand engagement?

H1: There is a significant positive relationship between gamifying business activity using progress mechanism and consumer brand engagement.

Based on the literature review game elements such as rewards, monetary rewards, prizes and skills development are used in studies for engaging the consumer towards the brand (Lucassen & Jansen, 2014; Vitkauskaitė & Gatautis, 2018; Gatautis et al., 2016).

RQ2: Is there a positive relationship between gamifying business activity using rewards mechanism and consumer brand engagement?

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H2: There is a positive significant relationship between gamifying business activity using rewards mechanism and consumer brand engagement.

Based on the literature review, social elements such as feeling part of group, sharing via social media, helping a friend are used in studies for engaging the customers towards the brand (Lucassen & Jansen, 2014; Xi & Hamari, 2019; Gatautis et al., 2016; Brito et al. 2018).

RQ3: Is there a positive relationship between gamifying business activity using social mechanism and consumer brand engagement?

H3: There is a positive significant relationship between gamifying business activity using social mechanism and consumer brand engagement.

Based on the literature review above, game elements such as restrictions, limited time and resources are used in studies for engaging the consumer towards the brand (Lucassen & Jansen, 2014; Brito et al., 2018).

RQ4: Is there a positive relationship between gamifying business activity using restrictions mechanism and consumer brand engagement?

H4: There is a positive significant relationship between gamifying business activity using restrictions mechanism and consumer brand engagement.

The below constructs shall measure the gamification mechanisms independent variables and consumer brand engagement dependent variable.

Table 1
Variables/Constructs with Item Description

Variable/Construct	Item Description	Source
Progress Mechanism (Leader boards, Badges/achievements, Points, Levels, Competition, Collections, Progress Bar)	-I prefer that the game has leader board, visual representation of achievements in comparison with other players. -I prefer that the game contains badges items (recognition earned for completing specific milestones) -I feel motivated and perform actions that give me points in the game/program. -I prefer the game has the option to be elevated to higher levels as per certain conditions and exert efforts to win. -I prefer games that encourage competition with other players to win or lose to progress in levels. -I prefer games that encourage the collection of resources or useful values. -I feel motivated to continue the game when my progress bar is almost complete.	(Lucassen & Jansen, 2014; Vitkauskaitė & Gatautis, 2018; Gatautis et al., 2016; Brito et al. 2018)

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Table 1
Variables/Constructs with Item Description (Cont'd)

Variable/Construct	Item Description	Source
Rewards Mechanism (Prizes, Monetary Rewards, Skills Development)	-I often use the game if there is a chance, -I can win prizes with it. -I often use the game if there is a chance, -I can win monetary rewards in it such as vouchers. -I feel that completing the game improves my skills.	(Lucassen & Jansen, 2014; Vitkauskaitė & Gatautis, 2018; Gatautis et al., 2016)
Social Mechanism (Collaboration/Feel part of a group, Cooperate with friends, Social Networking)	-I prefer that the game allows players to play in teams and create a community. -I find the game challenging if my friends are completing the same task or playing the same game. -I would like to share the game progress via social networking. -I prefer the games that let me interact with other people in a few easy steps.	(Lucassen & Jansen, 2014; Xi & Hamari, 2019; Gatautis et al., 2016; Brito et al. 2018)
Restrictions Mechanism (Constraints, Challenges)	-I prefer the game allows me to stop and resume back at any time without losing my progress. -I prefer the game to contain serious challenges (such as limited resources) that I have to pass and exert efforts to win. -I prefer the game to contain serious challenges (such as limited time) that I have to pass and exert efforts to win.	(Lucassen & Jansen, 2014; Gatautis et al., 2016; Brito et al. 2018)

Table 1
Variables/Constructs with Item Description (Cont'd)

Variable/Construct	Item Description	Source
Consumer Brand Engagement (Multi-dimension construct)	**Cognitive:** -I pay a lot of attention to anything about this brand/company. -Anything related to this brand/company grabs my attention. -I like learning more about this brand/company. **Emotional:** -I feel good when I use these brand/company product/services. -I am passionate about this brand/company. -I love this brand/company. -Using the brand/ company products/services makes me happy. -I 'm proud to use this brand. **Behavioural:** -This brand is one of the brands I usually use when I use products from the same category. -In general, I like to get involved in brand/company community discussions. -I often participate in activities of the brand/company community. -In general, I thoroughly enjoy exchanging ideas with other people in the brand/company community	(Vitkauskaitė& Gatautis, 2018; Xi & Hamari, 2019)

Research Methodology

Descriptive research design study, single cross-sectional was conducted. It was used to analyze the relationship between gamification and consumer brand engagement in Egypt, also, to test each of the gamification's mechanisms relationship with consumer brand engagement. Quantitative data analysis was used to test the above-mentioned hypothesis. Data collection instrument used was an online survey that targeted people who participated in any gamification activity before and also mobile application users, without the restriction to certain brands. As per State Information System (2018), these users' population is estimated to be 27.9 million users across Egypt. Hair (2006) recommended an item-to-response ratio of 1:5 to achieve rigorous data analysis and reliable results. This means that a minimum of 5 respondents are

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required for each item in the survey. Accordingly, a sample size of 152 people was selected via non probability convenient sampling with 95% confidence level in order to identify the relationship between gamification and consumer brand engagement across different sectors.

The questionnaire was first distributed in the testing phase to 10 people, pre-test sample, to get their feedback and also to check the average time according to their response. The pre-test phase resulted in minor modifications such as introducing a detailed paragraph in the beginning to give a clear insight about the questionnaire. Then, the updated questionnaire was distributed to 30 respondents to measure the reliability and internal consistency of the variables. Then the final questionnaire was distributed to 152 respondents via social networking. Due to the limitations of Covid-19 social distancing, there was no opportunity to distribute physical ones on the respondents. This took almost 3 weeks to 1 month to collect the data from the needed respondents. Then SPSS was used to conduct the analysis on this quantitative data.

Results

Quantitative analysis was conducted as a descriptive analysis, one-way ANOVA, simple and multiple regressions via SPSS. In this section, the conducted demographic analysis describes the gender, age bracket, education level, gamification industry that respondents prefer and the frequency of using the gamification/loyalty programs. The sample size of the current population was 152 divided to 48% males and 52% females. There were 2.6% within age bracket between 18 and 24 years old, 65.1% within age bracket between 25 and 35 years old, 26.3% between 36 and 45 years old and 5.9% above 45 years old. On the education level, there were 65.1% university graduates and 34.9% holding Master's degree. Most of the gamification activities reported belongs to 7 categories: Telecom, Banking, E-commerce/Retail, Flights, Educational, Online games and others who skipped mentioning the program name/industry. After excluding "others", the highest percentage went for Telecom loyalty programs with14.5% such as Vodafone Red, Orange Loyalty program and Etisalat. Then in the second rank, came the Banking loyalty program with 9.9% such as CIB points, Ahly Points, HSBC & QNB banking loyalty programs. Then E-commerce/retail came in the third place with 3.9% such as Ali Express, Carrefour Vouchers, and others. Online Games took also the same rank of E-commerce with 3.9% such as Pocket Estimation, Pubg & Xbox. For the usage frequency of the gamification program, it was reported that 9.2% use gamification programs on weekly basis, 17.1% on monthly basis, 16.4% every 3 months, 17.8% every 6 months, 15.8% on yearly basis and 23.7% can't remember when the last time where they used the gamification program.

Table 2
Gender Analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	73	48.0	48.0	48.0
Female	79	52.0	52.0	100.0
Total	152	100.0	100.0	

Table 3
Age Bracket Analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	4	2.6	2.6	2.6
25-35	99	65.1	65.1	67.8
36-45	40	26.3	26.3	94.1
>45	9	5.9	5.9	100.0
Total	152	100.0	100.0	

Table 4
Education Level Analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
University Degree	99	65.1	65.1	65.1
Master's Degree	53	34.9	34.9	100.0
Total	152	100.0	100.0	

Table 5
Gamification Program Category/Industry

	Frequency	Percent	Valid Percent	Cumulative Percent
Telecom	22	14.5	14.5	14.5
Banking	15	9.9	9.9	24.3
E-commerce/Retail	6	3.9	3.9	28.3
Flights/Miles	3	2.0	2.0	30.3
Educational	3	2.0	2.0	32.2
Online Games	6	3.9	3.9	36.2
Others (Skipped/Couldn't Remember)	97	63.8	63.8	100.0
Total	152	100.0	100.0	

Table 6
Gamification Program Frequency

	Frequency	Percent	Valid Percent	Cumulative Percent
Weekly	14	9.2	9.2	9.2
Monthly	26	17.1	17.1	26.3
3 Months	25	16.4	16.4	42.8
6 Months	27	17.8	17.8	60.5
Yearly	24	15.8	15.8	76.3
Can't Remember	36	23.7	23.7	100.0
Total	152	100.0	100.0	

Reliability Analysis

Reliability analysis was conducted to examine the internal consistency of the items used to measure the variables of the study. Cronbach's Alpha was used as a measure of reliability and internal consistency. The first scale is the progress mechanism, results showed that Cronbach's Alpha was 0.807 for the 7 items making up the scale and exceed the required cutoff point of 0.7, this means that the scale is reliable and internally consistent. For the second scale, the rewards mechanism, results showed that Cronbach's Alpha was 0.634 for the 3 items making up the scale. Still acceptable close to the cut-off point (0.7). For the social mechanism, results showed that Cronbach's Alpha was 0.762 for the 4 items making up the scale and exceed the required cutoff point of 0.7, this means that the scale is reliable and internally consistent. For the restrictions mechanism, results showed that Cronbach's Alpha was 0.706 for the 3 items making up the scale and exceed the required cutoff point of 0.7, this means that the scale is reliable and internally consistent. Regarding the last scale, consumer brand engagement, results showed that Cronbach's Alpha was 0.925 for the 12 items making up the scale and exceeds the required cutoff point of 0.7, this means that the scale is reliable and internally consistent.

Table 7
Reliability Summary Table

Scale	Cronbach's Alpha	No. of Items
Progress Mechanism	0.807	7
Rewards Mechanism	0.634	3
Social Mechanism	0.762	4
Restrictions Mechanism	0.706	3
Consumer Brand Engagement	0.925	12

Hypothesis Testing

Correlation Analysis

Pearson Correlation Coefficient was used to examine the relationship between gamification mechanisms and consumer brand engagement. The results showed that all independent variables have a significant moderate/medium positive correlation with the dependent variable except one which is the restrictions mechanism. All correlations were matching the literature review and hypothesis mentioned in the research except the correlation between restrictions mechanism and consumer brand engagement. H4: stated that there is a positive relationship between restrictions and consumer brand engagement, but p was >0.05, accordingly the relation is in-significant or not-significant and H4 is rejected. Accordingly, regression analysis will not be conducted for restrictions mechanism.

Results showed that there was a moderate/medium significant positive correlation between progress mechanism and consumer brand engagement variables [r=.430, n=152, p=.000]. This means that high levels of progress mechanism are associated with high levels of consumer brand engagement. In other words, the more companies apply progress mechanisms, the higher is consumers' engagement with the brands towards products/services. For the rewards mechanism, results showed that there was moderate/medium significant positive correlation between rewards mechanism and consumer brand engagement, [r=.392, n=152, p =.000]. This means

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the more the companies use the rewards mechanism, the higher the consumer engagement with brands towards the products/services. Regarding the social mechanism, results showed that there was also a moderate/medium significant positive correlation between social mechanism and consumer brand engagement [r=.398, n=152, *p* =.000]. This means the more the social mechanism is applied, the higher the consumer engagement towards the brands products/services. For the restrictions mechanism, results showed that there is in-significant correlation between restrictions mechanism and consumer brand engagement variables [*r*=.079, *n*=152, *p*=.331]. This could indicate that customers don't care a lot about the restrictions' mechanism in the gamification program.

Table 8
Correlation Analysis

		Progress	Rewards	Social	Restrictions
Brand Engagement	Pearson Correlation	.430**	.392**	.398**	.079
	Sig. (2-tailed)	.000	.000	.000	**.331**

**Correlation is significant at the 0.01 level (2-tailed), N= 152

Regression Analysis

Linear and multiple regression analysis will be used to investigate more the relationship between all independent and dependent variables.

Linear Regression Analysis

Linear regression was performed to assess how much variance in consumer brand engagement is explained by each of the gamification mechanisms. For Progress mechanism, by checking the ANOVA Table, results showed that the model is significant (p=.000). By checking the model summary table, the results showed that 18.5% of variance in consumer brand engagement is explained by progress mechanism. Progress mechanism variable is making a significant unique contribution to consumer brand engagement (Beta= .430, P=.000). Hence, H1 is accepted.

Table 9
Regression 1 ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.821	1	8.821	33.942	.000[b]
	Residual	38.983	150	.260		
	Total	47.805	151			

a. Dependent Variable: Brand Engagement
b. Predictors: (Constant), progress mechanism

Regarding the rewards mechanism, by checking the ANOVA Table, results showed that the model is significant (p=.000). By checking the model summary table, the results showed that 15.3% of variance in consumer brand engagement is explained by rewards mechanism. Rewards mechanism variable is making a significant unique contribution to consumer brand engagement (Beta= .392, P=.000). Hence, H2 is accepted.

Table 10
Regression 2 ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.336	1	7.336	27.191	.000[b]
	Residual	40.469	150	.270		
	Total	47.805	151			

a. Dependent Variable: Brand Engagement
b. Predictors: (Constant), rewards mechanism

For the social mechanism, by checking the ANOVA Table, results showed that the model is significant (p=.000). By checking the model summary table, the results showed that 15.9% of variance in consumer brand engagement is explained by social mechanism. Social mechanism variable is making a significant unique contribution to consumer brand engagement (Beta= .398, P=.000). Hence, H3 is accepted.

Table 11
Regression 3 ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.582	1	7.582	28.277	.000[b]
	Residual	40.222	150	.268		
	Total	47.805	151			

a. Dependent Variable: Brand Engagement
b. Predictors: (Constant), social mechanism

Table 12
Linear Regression Summary Table

Variable		**Unstandardized Coefficients**		**Standardized Coefficients**	***t***	***p***
		B	***SE B***	**β**		
Progress	(Constant)	1.939	.259		7.493	.000
	Progress mechanism	.395	.068	.430	5.826	.000
Rewards	(Constant)	2.242	.231		9.706	.000
	Rewards mechanism	.313	.060	.392	5.215	.000
Social	(Constant)	2.404	.197		12.213	.000
	Social mechanism	.298	.056	.398	5.318	.000

Dependent Variable: Brand Engagement

Multiple Regression Analysis

Further analysis was performed to compare or measure which mechanism is more significant among the other on consumer brand engagement. Multiple regressions were performed to assess how much variance in consumer brand engagement is explained by progress mechanism, rewards mechanism, and social mechanism. From the ANOVA table, the P=.000 indicating that the model is significant. The model summary table shows that 25.3% of variance in consumer brand engagement is explained by progress mechanism (Beta=.216, P=.020), rewards mechanism (Beta=.202, P=.017), and social mechanism (Beta=.204, P=.018). From the coefficient table, it is also shown that progress mechanism was the strongest predictor for consumer brand engagement given that it has the highest Beta value (Beta=.216).As a result, multiple regression shows that H1, H2 and H3 are accepted.

Table 13
Multiple Regression Summary Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.545	.273		5.656	.000
	Progress mechanism	.199	.084	.216	2.353	.020
	Rewards mechanism	.161	.067	.202	2.408	.017
	Social mechanism	.153	.064	.204	2.385	.018

a. Dependent Variable: Brand engagement

Discussion

This chapter explains the findings and research results and how they answered the research questions or were related to the hypothesis. In addition, a comparison between the research results and literature review is discussed to discover to what extent the research results matched the literature review.

The objective of this research was to study the relationship between gamification mechanisms and consumer brand engagement. There were several game elements used in the gamification activities. Gamification mechanisms represent most of the game components and mechanics. Gamification mechanisms were represented by four variables: Progress mechanism, rewards mechanism, social mechanism and restrictions mechanism. Consumer brand engagement, a multi-dimensional construct, was the independent variable and was measured using three dimensions: Cognitive, emotional and behavioral. The correlation of all variables was examined to accept or reject the relation with the consumer brand engagement.

Samples of 152 people, who live in Egypt, were selected via non-probability convenient sampling. The data was collected using an electronic survey, distributed via the online and social media channels due the circumstances of COVID-19 and social distancing. The data collected was analyzed by performing correlation, liner and multiple regression analysis using SPSS software. Moreover, further sample demographic data was analyzed to provide description for the sample profile. Demographic sample data showed that 48% of the sample was male and 52% were females. Regarding the age, the highest percentage was in the age category between 25 and 35 years old with 65.1%, followed by age category bracket 36-45 years old 26.3%, then the minor percentages remaining were distributed between 18-24 years and above 45 years' age brackets. These percentages indicate that most of the people who answered the survey lie in age bracket 25-45 years old, which was good in order to measure gamification accurately because as per the research, as age increases, the use of gamification declines (Koivisto& Hamari, 2014). Regarding the education level, all the sample were well educated having almost 65% university graduates and 35% master's holders.

The results also showed that the most used gamification programs in Egypt belonged to telecom loyalty programs such as: Vodafone Red, Orange Special program and Etisalat loyalty program. Customers could progress by gaining points and get rewarded by redeeming these points at a huge network of merchants. It was noted that WE telecom operator was not mentioned by the participants in the survey results at all as it did not launch points loyalty program for the time being. All of WE offers are based on short term campaigns such as seasonal vouchers: Mother's day, Ramadan, and others. Accordingly, customers were not being able to remember or provide an experience about it in the survey.

In the second rank, banking gamification programs took place such as CIB rewards program, Ahly points, HSBC and QNB. Worth to mention that Alex rewards program was not mentioned although it is a good one as per the market feedback. This is due to the limited number of customers belonging to Alex bank. The E-commerce, retail gamification programs came in the third rank such as Carrefour, Ali Express. For the fifth rank, online games took place such as PUBG and Xbox, which are pure gamification platforms based on games product. The rest of the respondent's answers were fragmented across different gamification programs and services or they skipped this question as they could not remember the name of the program.

For the gamification usage frequency, people reported that it was used every 6 months or less. Few reported that it was used on weekly basis which is confirmed by the literature review. As per Koivisto and Hamari (2014), people get excited at the beginning of the gamification program, and then the interest may decrease by time. Accordingly, customers may use the gamification program on longer periods unless there is something new offered by the company such as promotion or discounts, that grabs the customer attention back again.

Correlation analysis results showed that progress mechanism had a medium significant correlation with consumer brand engagement. This is consistent with the literature review and the hypothesis. Progress mechanism used game elements and mechanics such as points, badges, leaderboards, and competition in order to progress levels. Accordingly, the more the companies apply the progress mechanisms, the more the customer will be engaged. For the rewards mechanism, results showed that there is a medium significant relationship with consumer brand engagement. This means that the customers liked to use the brand product or service and happy with it when they get rewarded, same as explained in the literature review. People's love to be rewarded. This generates a positive feeling towards the brand. For the social mechanism, research results showed that there was a medium significant relationship with consumer brand engagement. Customers liked to get engaged with their friends via the social media and play together, share the game via the social media channels such as Facebook, Instagram...etc, resulting in faster and spontaneous interactions.

Brands use the social media tools as another way to engage their customers, since meeting the consumer needs in one-to-one communication is very challenging. Regarding the restrictions' mechanism such as the customers get engaged if the game includes limited resources or limited time, showed in-significant relationship with consumer brand engagement. This indicated that these two variables, restrictions and consumer brand engagement, are not tied at all.

On the liner regression level, analysis was done to measure how much variance occurred in the consumer brand engagement by each of the gamification mechanisms. Progress mechanisms results showed that 18.5% change in consumer brand engagement variable is explained by it, which is considered a very remarkable percentage, confirming with what was mentioned in the literature review. Followed by the rewards mechanism, it showed 15.3% change in consumer brand engagement, which was also a considerable amount. As per the literature review, companies provided prize or reward at the end of game, reported high consumer engagement towards their products or services. For the social mechanism, it showed 15.9% change in consumer brand engagement. Customers get socially engaged towards the product or brand by participating in social activities, playing with friends, sharing game together.

On the multiple regression analysis level, research results showed that there was a quite significant relationship between gamification and consumer brand engagement, except for the restrictions mechanism. Multiple regressions analysis was conducted to measure which mechanism among the other is more significant on consumer brand engagement. Results showed that 25.3% of variance in consumer brand engagement is explained by the progress, reward and social mechanisms, noting that progress mechanism has the strongest beta predictor over others.

This result was matching the literature review that the consumer brand engagement could be initiated and delivered through a mix between different game elements, where the engaged customers have tendency to be loyal and more actively participate in many brand activities (Vitkauskaitė & Gatautis, 2018). On the other hand, results showed that restrictions mechanism correlation is not significant, which could indicate that customers do not care a lot about the restrictions in the gamification program, such as having limited time or resources. Accordingly, H1, H2, H3 were accepted while H4 was rejected.

Limitations, Recommendations and Future Research

Managerial Implications

The research objective is to study the relationship between gamification and consumer brand engagement. The results of this research are important for marketers, managers and companies who would like to apply gamification techniques in their businesses for its end users. Despite many gamification elements were included in the research, progress elements proved to be the most elements having the highest engagement such as: points, levels, leaderboards, badges, progress bar. This is applied by telecom and banking sectors in Egypt such as: Vodafone Red Loyalty points, CIB points, ALEX Bank Points…etc. Retailers could also start to apply the progress mechanism to increase the consumer engagement towards their brand.

Moreover, marketers could also use the rewards mechanism such as vouchers for targeted short campaigns to increase the hype, and let also customers redeem their points into voucher values for long term relationship with the customers. A combination between progress and rewards mechanism could be beneficial. Research also showed that customers could get engaged through social mechanism by letting them participate into teams or interact with each other's; also sharing the progress via social media increases the customer engagement towards the brand. Social media channel could be a beneficial channel for consumer engagement.

Consequently, marketers could develop a unique gamification program to boost their sales and consider the cost at the same time. In order to do this, they have to start by studying their customers first and segment them as per their average spent and the most products they frequently buy from a specific brand. Marketer could then start designing the gamification program catering for all the segments. It doesn't have to be one standard program; each tier or segment could have the gamification program

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matching it. For example, low actively engaged customers could be targeted with rewards mechanism such as monetary vouchers/discounts to be redeemed directly.

Medium actively engaged customers could be targeted with pointing program/progress mechanism encouraging them to spend more. Highly active engaged customers could be targeted using both rewards and progress mechanisms while considering free or special gifts for them as being loyal to the brand.

Worth to mention that setting the budget from the beginning is very important. Calculating the profit and loss for each gamification program is crucial to measure the expected expenses and revenues for it. Setting the measures also is mandatory before launching the gamification program such as the average customer spent the number of purchasing/using the product or the service … etc.

To conclude, developing a unique gamification program could be a combination between different gamification mechanisms, so as to reach the best practice and target the right segment, which in return boosts the sales and increases the ROI.

Theoretical Implications

This research clarifies the relationship between gamification and consumer brand engagement in Egypt, which wasn't introduced before in this market as an academic research. The analysis of the collected data from the Egyptian consumers could be useful for the researcher to build a better understanding. Moreover, past papers included the gamification elements as whole without classification; this research classifies the gamification into four mechanisms: Progress, Rewards, and Social and Restriction mechanisms.

Prospects for Future Research

This part explains the limitations found in this research and recommendations of future researches as well. The first limitation is that the sampling technique used in the research is non probability convenient sampling, which may lead to in-ability to generalize the results of the sample to the population as a whole and the possibility of under- or over-representation of the population. The second limitation is that the survey was collected via online channels due to COVID 19 and social distancing limitation, asking about previous gamification experience, where customers may not have remembered the full details regarding this experience and wouldn't be able to ask questions as no physical existence for the researcher.

Accordingly, data in accuracy could arise in research results. Therefore, it is recommended for future researchers to collect the data physically by distributing physical questionnaire on groups of people and be available to give full brief and extra information if needed. For the third limitation, restrictions mechanism variable could have been much more explained and measured by further statements. In this research, it was measured by 3 statements only which lead to in-significant results, concluding that customers may not care about the restrictions mechanism. Further statements could be included and better results could be reached.

Regarding the fourth limitation, the research explained the relationship between each gamification mechanism and consumer brand engagement without considering if there is dependency between each gamification mechanism and the other or no. It is recommended for future researchers to check the dependency between them. For the fifth limitation, consumer brand engagement was studied as whole variable including the three dimensions: cognitive, emotional and behavioral, in order for easier analysis. It would be great to check if each dimension could be separated as a standalone variable or no and if yes, future researches could be conducted to measure the relationship between each gamification mechanisms and each of the consumer brand engagement dimensions.

Regarding the sixth limitation, in this research the theoretical framework didn’t contain neither mediating nor moderating variables. It is recommended to consider the consumer brand engagement as a mediating variable and the consumer brand loyalty as the independent variable. This may lead to better results and provides further insights.

Conclusion

This part explains the conclusion of this research. The conclusion will illustrate the results of the research in comparison with the hypothesis. The research objective was to study the relationship between gamification and consumer brand engagement in Egypt for each of the gamification mechanisms. Gamification in this research was studied by four variables: Progress Mechanism, Rewards Mechanism, Social Mechanism and Restrictions Mechanism. Consumer brand engagement variable is a multi-construct one explained by three dimensions: cognitive, emotion and behavioral. The researcher studied the relationship between the four mechanisms and consumer brand engagement.

The analysis was done based on data collected via online survey on 152 respondents. The analysis showed that progress mechanism has a positive relationship with consumer brand engagement. Same for rewards and social mechanisms showed positive relationship with consumer brand engagement. Regarding the restrictions’ mechanism, the research showed insignificant relationship with consumer brand engagement, which may indicate that customers don't care a lot about restrictions in gamification programs.

In conclusion, gamification provides a way for companies in order to build long-term relationships with their customers and influence their decision-making process towards their brands. Gamification uses the instinct basic for humans' "play" and proved to provide a real value for marketers, creating a positive digital experience.

Accordingly, companies whom are gamifying their business using progress, rewards and social mechanisms in Egypt, their customers get engaged towards their product or service brand, leading to better awareness regarding their brand and increasing the customer's loyalty as well which in return enhancing the company's profitability.

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