

## The Impact of Gamification on Customer Experience in E-Banking Sector: A Conceptual Paper

The Paper extracted from the Dissertation under the Title:

### Examining the Relationship between Gamification and Customer Experience in E-banking Services

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Doctor of Philosophy Degree in Business Administration

دراسة أثر نماذج الالعاب الجزئية الإلكترونية على خبرة العملاء في قطاع البنوك الإلكترونية: دراسة نظرية  
بحث مستخلص من رسالة الدكتوراه تحت عنوان

دراسة العلاقة بين نماذج الألعاب الجزئية الإلكترونية وخبرة العميل في قطاع البنوك الإلكترونية  
رسالة مقدمة للحصول على درجة الدكتوراه في إدارة الاعمال  
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### مستخلص الدراسة :

تعد نماذج الالعاب الجزئية الإلكترونية أداة تسويقية لها تأثير كبير في جذب انتباه المسوقين في الاونة الأخيرة حيث انها تخلق قيمة للشركات من خلال تحفيز وتشجيع العملاء من خلال توفير الوسائل الترفيهية والتسويقية الذكية (Yang et al., 2017). وبالتالي تهدف الدراسة الي تطوير اطار نظري يركز علي دراسة العلاقة المباشرة بين نماذج الالعاب الجزئية الإلكترونية (كمتغير مستقل) وابعاد خبرة العميل (كمتغير تابع) والتي تتضمن الجانب الادراكي، العاطفي، السلوكي، الحسي والاجتماعي بالتطبيق على قطاع البنوك الإلكترونية بواشنطن في الولايات المتحدة الامريكية.

**Abstract**

Gamification is a marketing tool which has been deeply influential in recent years after catching the attention of marketers. Where, gamification creates a great value for businesses since it encourages the customer through entertainment and intelligent marketing messages (Yang et al., 2017). This study aims to develop a theoretical framework that focuses on investigating the effect of the direct relationship between gamification (as independent variable) and customer experience dimensions in terms of core experience (cognitive, affective, behavioral experience), sensory and relational experience (as dependent variable) in the context of e-banking in Washington DC, United states of America.

**Keywords:** Gamification, Customer Experience, and E-banking.

**Introduction**

The introduction of gamification in business is the art and science of enriching the customer interactions (Zichermann and Cunningham, 2011). In this sense, companies have to learn how to introduce game mechanisms in their business software system to provide a fun, rewarding, and enjoyable experience for their customers (Rodrigues et al., 2016). Therefore scholars and practitioners started to invest in studies of gamification, which are expected to grow in value from \$71.3 billion in 2015 to \$90.1 billion in 2020, to better understand what makes computer games more engaged and transform customer routines into fun and enjoyable experiences (Leclercq et al., 2018). In the other hand, customer experience in recent years has a great attention for both academics and practitioners. Where customer experience has become vital for the success of online commercial activity, such that

firms must now think about factors which go beyond price and product quality (Rose et al., 2011). So that, gamification is considered to be the area in which a business can improve the customer's online experience. Through using game mechanics, organizations can promote a positive customer experience by using game elements in a commercial (non-game) context (Hsu and Chen 2018; Poncin et al., 2017). Despite the increased use of gamification mechanics in marketing, it is still unclear how these mechanics influence customer experience (Hamari et al., 2014). Therefore, the key challenge of gamification is finding a way to enhance customer experiences by providing customers with opportunities to develop game-like interactions (Leclercq et al., 2018). In addition, there is a lack of empirical studies investigating the impact of gamification on customer experience (Poncin et al., 2017). Therefore, according to TAM and SDT as well as reviewing previous studies, the current study aims to fill this gap by developing a theoretical framework that focuses on investigating the effect of the direct relationship between gamification (as independent variable) and customer experience dimensions in terms of core experience (cognitive, affective, behavioral experience), sensory and relational experience (as dependent variable) in the context of e-banking in Washington DC, United states of America.

## Research Problem

According to reviewing the literatures related to the relationship between gamification and customer experience. The current study focuses on investigating the effect of the direct relationship between gamification (as independent variable) and customer experience dimensions that include

CAB experience (cognitive, affective, behavioral), sensory experience and relational experience (as dependent variable) in the context of e-banking in Washington DC, United states of America.

## **Theoretical Background**

### **1. Gamification**

Gamification is applied for a variety of purposes such as customer engagement, motivation, education of customers and employees, innovation management, and personal development (Vitkauskaitė and Gatautis, 2018), as well as gamification has already been employed in various contexts that include e-commerce, enterprise resource planning, commerce, education), government services, exercise and health, mobile marketing and intra-organizational management (Hwang and Choi, 2020). Deterding et al. (2011) defined gamification as “the use of game design elements in non-game contexts” to design a gameful experience with the objective of creating a better customer experience and increasing engagement toward achieving specific goals. the most well-known frameworks in game design are called MDA framework that adapted from Hunicke et al. (2004) and stands for mechanics, dynamics, and aesthetics, which explains why game elements make people feel enjoyment. Meyer and Schwager (2007) defined customer experience as “customer’s internal and subjective response to any direct or indirect contact with a company”. Direct contact generally occurs during search (searching for information about a good/service or an organization), purchase, consumption, and other after-sale phases and usually initiated by the customer. Indirect contact most often involves unplanned encounters with representatives of a company’s products, services or brands and takes

the form of word-of-mouth recommendations or criticisms, advertising, news reports, reviews (Lemon and Verhoef, 2016).

## **2. Customer Experience**

The concept of customer experience first conceptualized in marketing studies by Holbrook and Hirschman (1982) and became generalized in marketing literature by Pine II and Gilmore (1998). Then, the concept has started gaining increasing attention from practitioners and academicians especially after the companies have shifted the focus from service-based economy to experience-based economy that represents the greatest value and competitive differentiation (Verhoef et al., 2009). Where, customer experience is considered as a base for organizations to attract customers, differentiate themselves from competitors, achieve competitive advantage and make a profit (Raina et al., 2019).

### **2.1 Customer Experience Definition**

Customer experience in the previous studies is defined in terms of impressions, feelings and intangible assets which results from the interaction between customer and service provider. Carbone and Haeckel (1994) defined customer experience as “a take away impression formed by people’s encounters with products, services, and businesses perception produced when humans consolidate sensory information” (p. 9). As well as Ding et al. (2011) conceptualized customer experience as “an important intangible asset which captures customer interaction within certain service systems that occurs in response to some stimulation. Additionally, Rias et al. (2016) conceptualized customer experience quality as “an overall customer journey

through emotion towards the product, services or even brand, which is at affective level”.

While Meyer and Schwager (2007) defined customer experience as “customer’s internal and subjective response to any direct or indirect contact with a company”. Direct contact generally occurs during search (searching for information about a good/service or an organization), purchase, consumption, and other after-sale phases and usually initiated by the customer. Indirect contact most often involves unplanned encounters with representatives of a company’s products, services or brands and takes the form of word-of-mouth recommendations or criticisms, advertising, news reports, reviews (Lemon and Verhoef, 2016). In general, customer experience is the user’s interpretation of the total interactions with the brand (Loureiro and Sarmiento, 2018).

Holmlund et al. (2020) defined customer experience as “a customer’s response to interactions with an organization before, during, or after purchase or consumption, across multiple channels, and across time” that has emerged as a sustainable source of competitive differentiation. The backbone of understanding customer experience is the customer journey, which comprises multiple touchpoints (i.e., interactions between customers and the organization) that are similar service encounters. In each discrete touchpoint, customers get cognitive, affective, behavioral, sensorial, and relational responses that resulting in a discrete customer experience (Kuehnl et al., 2019; Lemon and Verhoef, 2016; McColl-Kennedy et al., 2019; Verhoef et al., 2009). This conceptualization is consistent with the view that customer experience is a holistic process, comprised of interactions and activities

across multiple touchpoints that refers to “an episode of direct or indirect contact with a firm (Lemon and Verhoef, 2016). It is important to note that touchpoints can occur across several repetitions of service, especially where customers repeatedly deal with the same organization, where Prior experiences shape expectations about future interactions (McColl-Kennedy et al., 2019). Interactions refer to “ways individuals engage with others in their service network to integrate resources” and include interactions among companies, related systems, processes, employees, and customers in the service (McColl-Kennedy et al., 2012). As well as Terblanche and Boshoff (2004) stated that “In-store shopping experiences include to all interactions and experiences that a customer goes through from entering to leaving the shop door”.

## **2.2 Customer Experience Dimensions**

Based on literature by marketing researchers, customer experience is considered as a multidimensional construct. According to Chahal and Dutta (2015) stated that the core service experience comprises cognitive, affective, and behavioral factors as the most significant dimensions followed by relational experience and sensory experience dimensions. Cognitive customer experience refers to the flow state that occurs during shopping. This flow refers to states of enjoyment, involvement, and concentration that lead to a positive, subjective experience. A Cognitive customer experience results from the internal processing of incoming stimuli, such as either the review of incoming information or online interactions, such as navigation. Furthermore, cognitive customer experience results in the customer learning and developing new skills (Tyrväinen et al., 2020). An affective customer

experience is a customer's emotional response to stimuli such as entertaining that generates enjoyment (Tynan and McKechnie, 2009). Rose et al. (2012) reported that affective customer experience considered as the moods, feelings, and emotions that are generated by a customer's affective system. An emotional experience, whether positive or negative, influences a customer's information processing and builds long-term associations in a consumer's memory, which can lead to certain behaviors, such as recommendations (Tyrväinen et al., 2020). Chahal and Dutta (2015) reported that customer in the banking sector requires convenience at its every contact point with the organization regarding access, risk assessment, and transparency. The cognition dimension of banking customer experience includes knowledge of bank products, competitive interest on loans and information sharing; the affective component comprises problem handling, quality in responding, esthetics and empathy; Finally, behavioral dimension regards concern and caring attitude, prompt customer service and error-free bank services (Bilgihan, 2016). The current study depended on the dimensions of Chahal and Dutta (2015) to measure customer experience of e-banking.

## **Literature Review**

previous studies investigate the impact of gamification on different dependent variables in various contexts as follows. Suh et al., (2015) examined the effect of game dynamics (reward, status, achievement, self-expression, competition, and altruism) on needs satisfaction (competence, autonomy, and relatedness) and intrinsic motivation, which in turn leads to user engagement by drawing on two theories (basic psychological needs

theory and mechanic-dynamics-aesthetics theory). the data collected via online survey from 275 users of two gamified systems: Nike+ runners club and Knowledge-in a gamified knowledge-sharing community. The results confirmed the expectations of this research that game dynamics lead to increase needs satisfaction, which promotes enjoyment and, ultimately user engagement with the system. Furthermore, Mitchell et al. (2018) studied the effect of gamification on consumers' motivation and behavior to engage in physical activity from a social marketing perspective. This study conducted an experimental design to determine the effect of a gamified fitness application on both intrinsic motivation and walking behavior. The results founded that gamification supported behavior change and there was no significant change to intrinsic motivation as a result of using the app.

Also, Baptista and Oliveira (2017) investigate the direct effects of the mobile banking acceptance determinants (Performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and Habit) using a gamification construct to evaluate the impact of game mechanics and design techniques on mobile banking intention to use. The findings show that there is a direct and strong relationship between gamification and intention to use mobile banking services. As well as Huang et al. (2018) investigated the effect of gamification as a pedagogical tool on student behavior engagement in the out-of-class activities in flipped classrooms, where providing students with the materials online without any incentives did not attract many students to complete the post-class activities on time. As the result, the study integrated gamification to invite more participation to the flipped activities and bring fun to the class. This study

collected data through a questionnaire and conducted a quasi-experiment to test the effectiveness of this gamified intervention via involving two classes of first year undergraduates, one class as control group (flipped classroom, n = 48), and one class as gamified group (flipped classroom with gamified intervention, n = 48). The findings showed that adding gamification was effective in encouraging students' participation and add fun in flipped classroom, where results showed that the gamified group completed more out-of-class discussion activities than the control group within the expected time. Moreover, Mitchell et al., (2018) investigates the impact of extrinsic motivation, such as social pressure or internalized guilt, on competence, autonomy and relatedness needs satisfaction of employees that facilitate intrinsic motivation and behavioral intention to use a gamification application in the workplace. This study conducted an online quantitative survey (n=291) of gamification users across a variety of workplace. The results showed that extrinsic motivation can decrease employees' autonomy and competence needs satisfaction, but when extrinsic motivation is internalized it can support needs satisfaction, intrinsic motivation, and behavioral intention.

Likewise, Vitkauskaitė and Gatautis (2018) tested the direct impact of gamification (game mechanics and game components) on consumer brand engagement and the effect of flow state as a mediator between gamification and consumer brand engagement. This study developed an online survey and collected the data from 347 customers who engaged in gamified business activities in Lithuanian market. The results showed positive relationships between the constructs of the model, but all these relations were found to be

weak. Besides, Wolf et al., 2018 adopt a user-centered perspective by focusing on gameful experiences, while prior studies adopted design-oriented perspective (i.e., game mechanics) when examining the effectiveness of gamified services. This study aimed to explore the relationship between game mechanics and gameful experiences and then examined the impact of the dimensions of gameful experiences (skill development, social comparison, social connectedness, and expressive freedom) on continued service usage through two motivational paths, namely autonomous and controlled motivation as mediator variables. Additionally, Aparicio et al., (2019) test the key role of gamification as a success determinant to explain the use of Massive Open Online Courses (MOOCs) in the education field and their impact on individuals and organizations. Where the MOOC concept expresses a way of knowledge sharing through sharing and discussing of ideas with peers using digital channels of Internet, as well as combining various concepts such as electronic learning, massive communication, knowledge sharing, and openness. The findings reported that gamification plays an essence role in the success of MOOCs, as well as gamification has a positive impact on individual and organizations and moderates the positive relation between individual and organizational impacts. This study concludes that gamification increases engagement in learning contexts and that gamification leads to a certain level of enjoyment and challenge. Consequently, the presence of game design elements transforms a MOOC into a gamified context, which leads to a higher level of participation and engagement.

Hwang and Choi (2020) investigate whether and how gamification in loyalty programs (i.e., gamified loyalty programs) impacts customer loyalty toward loyalty programs and behavioral intentions in the mobile marketing context. The results supported the critical role of gamification in customer relationship management and confirmed that gamified loyalty programs increased customer loyalty toward loyalty programs than do conventional ones which in turn improved customer participation intention and app download intention. In addition, Xi and Hamari (2019) investigate the relationships between the user interactions with gamification features (immersion, achievement and social -related features) and intrinsic need satisfaction (autonomy, competence, and relatedness needs) in Xiaomi and Huawei online gamified communities that represent two large technology product-related online brand communities in China through a survey-based study. The results imply that gamification can have a substantially positive effect on intrinsic need satisfaction for services users.

Consequently, Prior research discusses the effect of gamification on different dependent variables such as intrinsic motivation, customer engagement, participation, customer satisfaction, intention to use, consumer innovation adoption, customer attitudes, brand engagement, continued service usage, customer loyalty, loyalty programs and behavioral intentions. Furthermore, gamification has conducted in various contexts such as: online shopping on fashion clothing items, education, knowledge sharing communities, fitness apps, mobile banking services, crowdsourcing, exercise apps, workplace, real-life gamified apps, and mobile marketing contexts.

There is a little previous study that investigated the relationship between gamification and customer experience as follows:

Hassan et al. (2019) investigated the effect of gamification on user experiences of different feedback types ranging between affective, informational and social feedback and their effect on user's perceived benefits from a system and their continued use intentions of HeiaHeia application. The results indicate that gamification is positively associated with experiences of affective feedback that strongly associated with user perceived benefits and continued use intentions. Furthermore, Hsu and Chen (2018) examine the impact of gamification marketing activities (GMAs) on the user experience in online bookstore context. The findings reported the significant effects of experience of GMAs on desirable consumer behaviors. Besides, Olsson et al. (2016) examined the effect of gamification and technology experience on intrinsic motivation in a grocery store. The results indicate that an increasing level of gamification and technology experience have direct positive associations with intrinsic motivation, which in turn lead to a positive direct association with satisfaction which has a positive direct relation with intention to use. In addition, Poncin et al. (2017) investigated the impact of two gamification mechanics, challenge, and fantasy, on customer experience and patronage intentions in retailing context. The findings reported that using gamification mechanics, i.e., fantasy and challenge, are effective to enhance customer experience in terms of arousal, compelling experience, and patronage intentions.

Additionally, Leclercq et al. (2018) tested the impact of gamification mechanics, competition, and cooperation, on customer experience in the

context of online co-creation communities. The findings provided strong empirical evidence that gamification positively affect customer engagement by enhancing customer experience during a contest. Moreover, Sigala (2015) investigated the impacts of gamification funware design of the TripAdvisor website on user experiences and behaviors in a specific e-commerce tourism context. Findings revealed that both the users logging into the website with a TripAdvisor account and the users logging into the Facebook account engage significantly more with demanding website tasks as well as gained significantly higher experiential values in terms of social-emotional benefits and claimed significantly greater impacts of TripAdvisor on making the trip planning more interactive and social.

### **Research Methodology**

The target population will be all customers who have a bank account in a gamified e-banking system in Washington DC, United states of America. The study will use non-probability convenient sample. The study will collect data from 384 participants through an online questionnaire to test the hypotheses represented in the proposed conceptual model. Additionally, the study uses a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The current study uses SPSS v.26 to measure the Reliability and the validity of constructs. Additionally, the study tests hypotheses by using Partial Least Square Structural Equation Modeling through Smart PLS version 3.3.2.

## Conclusions and Implications

Up to our knowledge, there are no prior literatures examine the direct relationship between gamification and customer experience dimensions in e-banking context. Where there is a little empirical study that investigated the impact of gamification on customer experience (e.g., Poncin et al., 2017; Hsu and Chen, 2018; Leclercq et al., 2018; Hassan et al., 2019). Thus, the present study focuses on investigating the direct relationship between gamification (as independent variable) and customer experience dimensions in terms of cognitive, affective, behavioral, sensory, and relational experience (as dependent variable). From reviewing the previous literature above, the current study found that there is a positive relationship between gamification and customer experience directly where most previous studies reported that gamification is an effective tool to enhance customer experience. The results of this study should help business managers enhance their understanding of customer's perceptions by using gamification as a crucial tool to enhance customer experiences. Customer experience is expected to be a key antecedent of perceived value, customer attitude and behavioral intentions. Thus, businesses can increase intention to use and word-of mouth intention with the use of gamification.

## Limitations and Future Research

The present study applied cross sectional study; future studies may apply longitudinal studies to examine the effect of gamification on customer experience that provide additional insights. Moreover, this study focused on customer characteristics as a moderator variable to affect the relationship between gamification and customer experience; future studies can modify the research model to include new moderators such as product features and

residence area. Forth, future research may examine the research model by conducting a comparative study through comparing the results of the model in USA with applying the phenomena in Egypt. Also, future research can apply the research model in Egypt by developing a gamified application in an electronic banks (experimental study). The present study conducted the proposed model in online banking website; future research can apply the research model in mobile banking services.

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