

A Literature Review on the Role of Gamification in Customer Engagement: Specific Study on E-Payment Applications

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ABSTRACT

With the emergence of mobile phones and their wide application, the e-banking sector and mobile payment applications have become popular among users. Mobile payment systems have the potential to become a major, killer application and feature regarding the mobile phone sector (Ghezzi et al., 2014). Increased usage of the mobile payments system is beneficial to both the banker as well as to the customers. The major challenge faced by the organizations in mobile payment applications is to keep the customers engaged and to create a sense of continuous intention to use among them. Gamification, the application of game elements in non-game context is a technique adopted by the marketers in retaining customers. In e-banking, gamification has an exciting role to play in driving valuable customer behaviors, making complex operations easier and enjoyable, generating engagement with new products and building customer loyalty (Rodrigues, Oliveira, & Costa, 2016a). The current study is a literature review to analyze the application of gamification in mobile payment apps which promotes customer engagement and leads to the continuous intention to use. The study analyses the articles published in peer-reviewed journals and explores the importance of gamification techniques in retaining customers. All issues from the last ten years of major journals like Computers in Human Behavior, International Journal of Human-Computer Interaction, Electronic Commerce Research and Applications, Journal of Services Marketing, were comprehensively searched to identify articles reporting research on applications of gamification in retaining customers in e payment applications. Articles were selected for further study whenever the abstract listed gamification and customer engagement as one of the variables.

Keywords: Gamification, Customer engagement, E-payment application, Game elements

1. INTRODUCTION

The emergence of virtual market places and online shopping sites has led to increased usage of online payment methods. Various digital online payment methods such as digital cash and e-wallet emerged to help consumers transact with convenience and confidence in the virtual marketplace (L. Chen & Nath, 2008). The future of the going Cashless India looks pretty promising as the positive response of the country people towards this move. This will increase the creditability of the country and make a rise in investments (Brahma & Dutta, 2018). On the part of banks, costs per transaction are significantly lower outside of branch banking, which has made it possible for banks to charge lower fees for transactions carried out online by their customers, thus encouraging a migration of customers toward home banking (Fenu & Pau, 2015). Convenience, ease of use, availability of discounts, cash backs etc. are some of the factors that motivates people to choose mobile payment systems. However there is a need for

better understanding of the factors affecting the adoption of mobile payments(Thakur & Srivastava, 2014).

The development of business applications with game features has given rise to a new trend called gamification and challenged e-banking to introduce new game elements, such as mechanics and social cues, to its traditional applications(Rodrigues, Oliveira, & Costa, 2016b). One of the main applications of gamification is to enhance user engagement in a specific software or website through an increase in users' motivation(Darejeh & Salim, 2016). In this research we explore whether gamification of mobile banking apps can contribute to the improved usage of them. Gamification is driven by the premise that contemporary ubiquitous technologies will converge with "informed, connected, empowered and active consumers" resulting in experientially based customer engagement and consequential positive relational outcomes(Harwood & Garry, 2015).

The current study used a literature review design. With the help of the literature review method, we analyze whether the application of gamification in mobile payment apps leads to customer engagement and ultimately to the continuous intention to use.

THEORETICAL BACKGROUND

GAMIFICATION

Gamification refers to a process of enhancing a service with affordances for gameful experiences in order to support users' overall value creation(Huotari & Hamari, 2017). The focus of gamification definitions has been transferred from the 'use of game design elements' to the 'gameful experience' of the users. Given that humans are generally challenged in life with non-motivational activities and that everybody actually likes to play, gamification could be a process to bring motivation in these activities.(Maican, Lixandroi, & Constantin, 2016). Popular positive belief in the effectiveness of gamification has often been based on the anecdotal conception that because most games are 'fun' and intrinsically motivating, then any service that uses the same mechanics should also prove to be 'fun' and effective in invoking positive further behavioral outcomes(Hamari, 2017).

Gamification has been widely applied in marketing. Over 70% of Forbes Global 2000 companies surveyed in 2013 said they planned to use gamification for the purposes of marketing and customer retention(Park & Bae, 2014).In e-banking, gamification has an exciting role to play in driving valuable customer behaviors, making complex operations easier and enjoyable, generating engagement with new products and building customer loyalty(Rodrigues, Oliveira, & Costa, 2016a).Gamification is different from loyalty programs, although both of them are used for similar goals, they are different in the sense that most loyalty programs offer economic benefits (redeemable by points) for the continuous use of services that most likely invokes extrinsic motivations which are detrimental to intrinsic motivations. While game mechanisms do not provide economic benefits for the users, but are believed to add value to the service via transformation of the usage motivations and intentions with the help of perceived enjoyment, flow, immediate feedback, clear goals, social comparison etc.(Hamari, 2013). As previous works on player motivations suggest, people in fact interact with game-like systems in

different manners, and for different reasons. Thus, the experiences created by the gamifying motivational affordances are also likely to vary (Hamari, Koivisto, & Sarsa, 2014).

MOBILE PAYMENT APPS AND CUSTOMER ENGAGEMENT

Mobile payment (mPayment) refers to making payments using mobile devices including wireless handsets (e.g., cell phones and Blackberry devices), personal digital assistants (PDA), radio frequency (RF) devices, and near field communication (NFC) based devices. The payment industry is hoping that mPayment will deliver the convenience, transaction speed, and versatility required in today's complex marketplace (L. Chen & Nath, 2008). A different browsing experience for users is created through the stimulation of a variety of visual and audio senses via a mobile application (Tarute, Nikou, & Gatautis, 2017). A gamified design of payment apps which foster customer engagement, will promote the usage of mobile payment apps. The continuing use of an application drives users' motivation behavior making them loyal to their devices, driving their value and satisfaction which further fuels engaged involvement motivation behavior (Y. H. Kim, Kim, & Wachter, 2013). In contrast, a disengaging design may cut down the usage rate. For example, although mobile banking has many advantages such as ubiquity and immediacy, if users do not require mobile transactions (for example, they are mostly in the office and have a low demand for mobile payments), they will select traditional or online banking services rather than mobile banking (Zhou, Lu, & Wang, 2010). Considering significant time and money required for the development of mobile payment systems, it is of paramount importance to ensure that mobile users will actually use m-payment. In order to achieve this goal, attention must be paid to the development of appropriate m-payment services business model and marketing strategies as well as systems design (C. Kim, Mirusmonov, & Lee, 2010).

2. METHODOLOGY

All issues from the last ten years of major journals like *Computers in Human Behavior*, *International Journal of Human-Computer Interaction*, *Electronic Commerce Research and Applications*, *Journal of Services Marketing*, were comprehensively searched to identify articles reporting research on applications of gamification in retaining customers in e payment applications. Articles were selected for further study whenever the abstract listed gamification as one of the variables.

3. FINDINGS AND DISCUSSIONS OF PREVIOUS STUDIES

Here we present the important findings of ten selected studies within last ten years, which provides insights about the application of gamification techniques and customer engagement in online context.

AUTHOR	PURPOSE OF STUDY	FINDINGS
(Baptista & Oliveira, 2017)	The objective of the study is to identify the potential impact of the application of game mechanics and game design techniques in the acceptance of mobile banking services.	The gamification in mobile banking services, when used and designed properly, can help make banking activities more exciting, more interesting and more enjoyable, and in turn increase customer acceptance, engagement and satisfaction.
(Hsu, Chen, Yang, & Lin, 2017)	The study is mainly to investigate the relationships among website features, user attitude, and behavioral intentions in an online gamification context.	Findings of this study indicates that users' perceptions of value and attitude can be improved more effectively with gamification , acquire competitive advantage and further evoke desired behavioral intentions
(Huotari & Hamari, 2017)	This article is an attempt to examine the importance of gamification in service marketing theory.	Game study literature and service marketing literature are largely complementary. They defined gamification “a process of enhancing a service with affordances for gameful experiences in order to support users’ overall value creation.”
(Hamari, 2013)	This article analyses results of a one and a half year-long field Experiment on gamifying a utilitarian trading service by the incorporation of badges, which have been considered the primary mechanism through which services have been gamified.	The results show that the mere implementation of gamification mechanisms does not automatically lead to significant increases in use activity in the studied utilitarian service, however, those users who actively monitored their own badges and those of others in the study showed increased user activity.
(Hamari et al., 2014)	The study is conducted to explore the effects of gamification by drawing from the definitions of gamification and the discussion on motivational affordances.	The study indicates that gamification provides positive effects, however, the effects are greatly dependent on the context in which the gamification is being implemented, as well as on the users using it.
(Hamari, 2017)	This paper presents the results of a 2 year field experiment in gamifying a service by implementing a game mechanic called ‘badges’.	Results show that users in the gamified condition were significantly more likely to post trade proposals, carry out transactions, comment on proposals and generally use the service in a more active way.
(Rodrigues et al., 2016a)	The study is conducted to understand the factors that affect the adoption of gamification in e-banking.	In this financial environment, we should pay special attention to all variables which may act as the enabler to enhance bank customer to use the e-banking systems. Therefore, banks can

		design business software game-based to encourage financial literacy, add social cues elements and game mechanics.
(Rodrigues et al., 2016b)	The study explore the role of gamification, socialness, and other well-known variables in a gamified business application.	This paper presents a new conceptual model to predict behavioral intention towards gamified e-banking, enhancing seven dimensions (gamification, socialness, ease-of-use, usefulness, enjoyment, intention to use, and business impact) that affect the adoption of e-banking by bank customers.
(Harwood & Garry, 2015)	This study is an attempt to provide empirically generated results into a gamification approach to online customer engagement and behavior.	There is little evidence to suggest the gamified experience reviewed here generates and reinforces the type of high-quality Customer engagement that may potentially be achieved. Our findings suggest there are key components of the gamification mechanism that firms need to be incorporate into a game design, including challenge, task and completion, achievements and rewards and win condition. Thus, firms need to recognize that it is game content and not just game mechanics that contributes to successful customer experience environments and, ultimately, Customer Engagement.

4. CONCLUSION

An emerging technique to motivate desired behavior among users is through the use of gamification as a tool to create fun environment to motivate the engagement of the users. Gamification is a new concept that has been defined by Deterding et al. (2011) as “the use of game design elements in non-game contexts to improve user experience and user engagement”(Kumar & Raghavendran, 2015). The concept of gamification has been widely used by e banking applications in order to create customer engagement and create a sense of continuous intention to use among customers. Increasing user satisfaction will boost customer reuse intention and loyalty. High customers’ satisfaction will also enable e-service providers and their users to sustain a long-term relationship(S. C. Chen, Yen, & Hwang, 2012). Gamification is helpful in creating experientially based Customer Engagement and consequential positive relational outcomes. As a result, gamification has seen substantial adoption by firms in recent years, with an estimated 70 per cent of Global 2000 firms having at least one gamified application(Harwood & Garry, 2015).

From the review of articles, it can be understood that application of gamification techniques in e payment websites is able to create customer engagement and retain the users. But there are instances where gamification does not create desired output. The reason for the failure of gamification may be because of its poor designing or the individual differences may also lead to such undesired results. Even though gamification cannot guarantee to replace an aggressive marketing, it is helpful in creating a positive relational experience.

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