Examining the relationship between intentions to engage in gamification branding and attitude toward the brand

Abstract-200

The development of multiple applications with features of digital games brings about a new trend called Gamification. Besides, the Technology Acceptance Model (TAM) also represents an important theoretical tool toward understanding the usage of a specific technology, system or service. Since no clear practical explanation that allows the connection of gamification with non-game context, especially with branding, has been figured out and the inner-relationship between gamification and users’ behavior or attitude change has been explored, a model and 11 propositions has been established in this study is to investigate and identify the determinants of the acceptance of gamification branding process based on TAM with perceived enjoyment and perceived socialness as additional variables and further explore the relationship between the customers’ intention to engage in the branding process and the attitude toward that brand. In addition, to contribute to the market segmentation in branding strategies, social value orientation is made as the differentiator for the customers in the research.
**Introduction**

Recently, gamification has gained a lot of momentum both in industry and accordingly increase in academic area. (Bogost, 2007; Deterding, 2011; Kim, 2008; McGonigal, 2011) Actually, in the beginning of the gamification industry in 2010, over 350 companies have launched major gamification projects including brands like Ford, eBay and Cisco. (Zichermann, 2013) And it is estimated that by 2015, 40% of global 1000 organizations will use gamification as the primary mechanism to transform business operations. (Burke, 2013) And in academic study, most empirical researchers have focused on the gamified-design oriented motivation for customers in gamification or digital games like storytelling, aesthetic graphics or interesting characters, (Kramar, 2000; Althofer, 2003; Markley, 2003; Brown, 2005) predictors of experience-and-usability oriented technology adoption have seldom been addressed. Moreover, TAM was developed to explain the technology usage attitude or behavior (Davis, 1986), so taking gamification as an entertainment or commercial technology, this study applies TAM that incorporates social influences and enjoyable experience as additional related constructs to predict users’ acceptance of gamification branding process. We will investigate the effect of enjoyable experiences, usefulness, ease of use, and socialness on user acceptance of gamification and tested the relationship between engagement in the branding process and the attitude toward that brand. In addition, to make contribution to the market segmentation in branding strategies, social value orientation is made as the differentiator for the customers in the research. And an experimental designed research may be adopted to test our model.

**Literature Review**

**Gamification**

To study gamification branding, it is important to figure out what is gamification. It is illustrated that the roots of gamification may originate in the digital media industry (Deterding, et al., 2011) and started out with the term “funware” (Takahashi, 2008). Since many people believe gamification is a world-changing term, scholars always tried to provide a comprehensive definition for it, which mainly focus how to gamify an application. Buchball Inc. (2010) described the gamification as “applying the mechanics of gaming to non-game activities to change people’s behaviour”. And Deterding (2011) defined it as “the use of game design elements in non-game contexts”. In addition, Edmonds (2011) and Zichermann (2010) coincidentally emphasized the engagement effect of gamification while illustrating the definition. Besides, in HCI, researchers often pay much attention on studying the effectiveness and efficiency of the user when evaluating a product or a service. In this aspect, some scholars concentrate their researches on seeking user experience attributes of gamification like pleasure or enjoyment, considering it an interface and interaction design. (Hassenzahl, 2003; Jordan, 2000)

Particularly, gamification should be distinguished from play, serious games (Deterding, et al., 2011) and reward systems. Play is an open-ended territory in which make-believe and world-building are crucial factors (Walther, 2003), the reward system often refer to badges, levels or points, (Makas, 2013) and the serious game is a kind of “interactive computer-based game software for one or multiple players to be used on any platform and that has been developed with intention to be more than entertainment”. (Ritterfield, et al., 2009) In this case,
Gamification process may usually apply the game design elements for rule-bound, goal-oriented play, and meanwhile a serious game or reward system can be an important part of it.

**Gamification Branding in Marketing**

As Zichermann (2010) stated in the definition, gamification is designed to solve problems. Nowadays, millions of people have used gamification to improve their lives, their workplaces and their bottom lines. Meanwhile, the business community is just starting to realize its potential to improve customer engagement, build loyalty, and incentive employees and partners to perform at high levels. (Buchball, 2010) On the other hand, due to the improvement of the productivity and the development of the technologies, current customers are becoming more and more selective of how and where to spend their money and time. Accordingly, companies are forced to find new ways to adapt their marketing strategies for their products or services in order to attract customers’ attention and keep them engaged in the process. (Giovannoni, 2012) Besides, marketing area is highly innovative and sophisticated in constantly deploying new ideas and phenomenon, so many companies has involved in the marketing area of gamification for branding, from the ways of earning points, badges and free products through playing games or joining competitive activities, to fostering strong social communities on Facebook and Twitter. (Meloni & Gluener, 2012) And the pioneering participants include Coca-cola, McDonald, Nike and Sony.

Marketers have synthesised the principles of gameplay with many marketing applications under non-game context. There have been many attempts to use games in branding before, game designed for a specific brand to advertise its unique name or image. Gaming is an active experience where a person is drawn into a virtue world and potentially confronted with numerous emotions and experiences. (Sherry, 2004; Klimmt et al., 2007; Poels et al., 2009) Similarly, it is the fact that gamification brings marketing activities from boredom or even aversion to fun and commitment. As it is in the human nature to interact and be entertained with playful applications and the experiences may make customers actively participating and engaging with the processes (Buchball, 2010), the direct and primary goal of branding should be to keep customers engage with the gamification process and change their attitude toward that brand, and the final influence should be the purchase decision.

**TAM**

Technology Acceptance Model (TAM) is originally developed by Davis in 1986 based on Theory of Reasoned Action (TRA) to explore the relationship between external variables and user’s acceptance of a specific technology, seeking to understand user’s attitude and/or behaviour based on the perception of usefulness and ease of use. (Rodrigues, Costa & Oliveira, 2013; Davis, Bagozzi and Warshaw, 1989) So a user’s behavioural intention to adopt a particular technology is determined by the attitude toward the use of technology and attitude, in turn, can be influenced by two primary psychological aspects (beliefs): perceived usefulness and perceived ease of use. The former is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” and the latter is defined as “the degree to which using the technology will be free of effort”. (Davis, et al., 1989, p. 985) In addition, although TAM is a well-accepted model for technology acceptance, it has been criticized for ignoring many other aspects in different context. TAM2 has been developed with social influence process and cognitive instrumental processes added in, (Venkatesh & Davis, 2000) and it has been applied to explore the user acceptance of the website. (Wu, et al., 2011) Moreover, Ahn, Ryu and Han (2007) introduced this model into
testing the acceptance of online retailing and include the playfulness as a factor that can increase user acceptance. Recently, TAM, as a well-accepted intention model for predicting and explaining technology, system or service usage, has been adopted in more and more areas. And some more variables has been added to TAM, including social culture, satisfaction, loyalty incentives (Bhattacherjee, 2001), perceived control, fashion involvement (Shang, 2005), enjoyment and playfulness, for diverse research purposes. (Ahn, Ryu & Han, 2007)

**Model and Propositions**

Gamification has grown in importance as a gamified internet-based application in a variety of areas, especially in branding, so it is critical to understand its effect on user intention and attitude. In an attempt to identify the variables that influence customers’ intention to engage with the gamified application and to explore the relationship between the engagement and the attitude based on TAM. As a result, the model in the following has been formed and 11 propositions in 3 groups are established for the research:

1.1 **Perceived Enjoyment** will have a positive influence on customer’s intention to engage in the gamification branding process.

1.2 **Perceived usefulness** will have a positive influence on customer’s intention to engage in the gamification branding process.

1.3 **Perceived ease of use** will have a positive influence on customer’s intention to engage in the gamification branding process.

1.4 **Perceived social influence** will have a positive influence on customer’s intention to engage in the gamification branding process.

Perceived Enjoyment and Perceived Socialness are regarded as additional influential factors in user acceptance besides of Perceived Usefulness and Perceived Ease of use in TAM. First of all, various empirical researches have shown that perceived usefulness and perceived ease of use are two primary determinants to explain the user’s technology acceptance, (e.g. Davis, 1989; Mathieson, 1991; Taylor & Todd, 1995). In TAM, perceived usefulness has been proved to be the most significant factor (more than perceived ease of use) in acceptance of technology in the workplace (Davis, 1989; Hu et al., 1999; Park, 2009). And in business, it has also been found to have positive influence on consumer’s acceptance of new internet services and mobile products. (Childers et al., 2001; Bruner & Kumar, 2005) So
in this marketing related study, perceived usefulness, based on its definition, is applied to acting as an potential factor to explain its relationship with consumer’s behavioural intention of engagement and may mainly concern with perceptions of the functional outcome of gamification use including the stress relief after work or even a free trial bonus. Perceived ease of use is often related to user’s evaluation about the effort involved in learning and using a technology according to its definition, so it usually affect user’s initial approaching and acceptance of some new technology and is found to be essential for adoption and further engagement. (Davis, Bagozzi & Warshaw, 1989; Venkatesh, 2000; Lin, Shih & Sher, 2007; Park, 2009) However, sometimes in the workplace study, the effects of perceived ease of use were not clear or proved to be indirect. (Davis, Bagozzi & Warshaw, 1989; Venkatesh, 1999) But in business, ease of use was found to have direct and positive effect on attitude toward some new technological innovations. (Childers et al., 2001; Dabholkar & Bagozzi, 2002; Gentry & Clantone, 2002) So in this model, the effect of perceived ease of use which may refer to the level of accessibility or complexity should be carefully examined and analysed.

In the past, marketing scholars have argued that an intrinsically motivated hedonic feeling may play an important role in the consumption decision (Holbrook & Hirschman, 1982; Hartman et al., 2006; Lee, Suh & Whang, 2003; Bruner & Kumar, 2005). In HCI, the entertainment potential of high-technology products is expected to have a strong influence on the adoption decision. (Childers et al., 2001) And in game study, enjoyment (e.g. pleasurable, exciting, enjoyable, and fun) (Ghani & Deshpande, 1994; Moon & Kim, 2001) is considered the most important motivational aspect for gameplay. (Yannakakis & Hallam, 2007) if the players do not enjoy the game, they may not play it. Besides, the enjoyment was constructed as a supplemental variable in both technology study (Davis, et al., 1992) and business study (Atkinson & Kydd, 1997; Jarvenpaa & Todd, 1996; Koufaris et al, 2001; Moon & Kim, 2001; Van der Heijden, 2004; Choi & Kim, 2004). And in those studies, it has been identified as a determining factor for intentions or attitudes and influenced by game characteristics. And our research relates enjoyment to the behavioural intention of engagement in gamification marketing context, which has not been studied and is proposed to explore their relationship. In addition, since the original TAM was criticized due to missing some individual elements, among which social factors have attracted much attention. It is always assumed that social factors profoundly impact user behaviour and several studies have focus on that assumption. Venkatesh and Davis (2000) extended TAM to include variables relevant to social influence and others suggested the considerations of social cultures. (Straub, et al., 1997) In Hsu and Lu’s (2007) and Gajadhar et al.’s (2008) researches about playing games, social influence (social norms and critical mass) can significantly and directly affect players’ attitudes and intentions. So social influence has the potential to influence consumers’ intention, let alone gamification derives from game. But the distinction is that gamification branding acts beyond the unitary entertainment or advertising function, so to what extent social influence can influence consumers’ intention of engagement remains to be found out.

As we all know, successful computer games usually have remarkable capability to draw people in (Jennett et al., 2008), which can attract people to involve in and keep playing. (Brown and Cairns, 2004) Besides, player engagement has been studied theoretically and empirically, and related to multi-concepts which can influence or predict it including enjoyment in game study. (Klimmt, 2003; Ijsselsteijn et al., 2008) And social influence has been studied about the relationship with engagement on Robert Technology acceptance. (Heernek, et al., 2008) Logically, the behavioral intention should rely on the assessment of using a specific technology. It has been viewed as the result of a set of cognitions as well as a set of affective responses (Cohen & Areni, 1991; Triandis, 1971; Riemenschneider et al.,
2002). But whether it can be affected by effects of using a particular technology has been rarely explored. TAM was developed to understand user acceptance of a particular technology. But it has not been adopted to explain the behavioural intention of engagement with gamification process in marketing contexts.

2.1 Customer’s intention to engage in the gamification branding process will have positive influence on their attitude toward the brand.

Whether customer’s engagement with the branding process will influence their attitude toward that brand will be examined. The gamification branding process has the strength and potential to provide the incentives for the customers to engage with that process. And Houpt (2011) also recognized the strong emotional ties that gamification created between the customers and the brand, getting the customers live the experience with a memory that the brand becomes an inherent and indelible part of their life. Mick and Fournier (1998) used to argue that the use of the technology may trigger both positive and negative feelings. So in our research, we may figure out what kind of feelings the engagement in the gamification can generate for the brand. On the positive side, people may be more happy or excited about the brand in the gamification when they are involved in the process longer. Users’ attitudes about technology acceptance may vary with the person and context in which adoption occurs. Historically, the branding activity might be about telling the public what the attributes of a brand are or what the characteristics that a product or service with that brand have, (Zichermann, 2011) but now we should examine that whether it is also about making customers engage with the branding activities in order to influence customers’ attitude toward that brand.

3.1 Social value orientation will have positive influence on perceived enjoyment.

3.2 Social value orientation will have positive influence on perceived usefulness.

3.3 Social value orientation will have positive influence on perceived ease of use.

3.4 Social value orientation will have positive influence on perceived social influence.

3.5 Social value orientation will have positive influence on customer’s intention to engage in the gamification branding process.

3.6 Social value orientation will have positive influence on customer’s attitude toward that brand.

Social Value Orientation (SVO) is involved as a differentiator for the customers. In a matter of fact, many theories and models developed within the social and behavioural sciences depart from the assumption of self-interest, often taking the form of social value orientation, (Cremer & Lange, 2001) which is often divided into prosocials and prostselfs. Stel, et al. stated that people with a prostself social value orientation are more likely to maximize one’s own well-being, either dependent or independent of the well-being of other’s. And people who do regard the well-being of others more than one’s own are usually considered prosocials. (Liebrand et al., 1986; Bogaert, Boone & Declerck, 2008) SVO theory suggests, based on many empirical studies, the social value choices that people make relates to other people. So prostselfs and prosocials often have difference in attitude or behavior when they are in a social environment. Williams et al. (2006) have shown that gaming may extend players’
preexisting relationships. Gamers report that the social part of gaming is important to them and one of the strongest motivators to engage in gaming (Frostling and Henningsson, 2009; Jansz & Martens, 2005; Jansz & Tanis, 2007). As for this study, people engaging in the gamification branding process often act in a social group to communicate with each other, and the users can get some positive feelings through joining a social network. Since social factor is an important variable in this research, social value orientation is capable to serve as a differentiator for the customers to explain the assumption that people with different social value orientations may vary in generated experiences, behavioural intention and attitude.

**Conclusion**

This research will examine the relationship between perceived socialness, perceived ease-of-use, perceived usefulness, perceived enjoyment and intention towards using gamification in branding. The results may explain that to what extent customers’ engagement in gamification process can be influenced by the variables in TAM, whether customer’s intention towards the branding process affect their attitude toward that brand, which may vary in people with different social value orientations. This research will fill the gap that provide a clear explanation about the customers’ attitude or belief change due to gamification from TAM’s perspective and make contribution to the market segmentation according to social value orientation. In practical operation, the research result can also encourage or discourage marketers to engage customers in the branding process. Furthermore, as a new born phenomenon, although gamification has been widely accepted by the public so far, it still needs more attention to be studied and tested in different areas and in the long run.