On the post-acceptance of mobile movie-themed games

Chun-Hua Hsiao [a], Kai-Yu Tang [b],*

[a] Kainan University, Taiwan
[b] Ming Chuan University, Taiwan

ARTICLE INFO

ABSTRACT

This research proposes a post-acceptance model of mobile movie-themed games (MMGs) from the perspective of experiential marketing with five experiential elements of MMGs: thematic attractiveness, perceived enjoyment, flow, act, and relate. The online survey method with structural equation modeling was used to empirically examine the proposed model. A total of 388 valid questionnaires from actual MMG users were collected. The potential gender differences were also investigated. The results present three theoretical contributions: (1) loyalty to movie games can be determined by flow, act, and relate; (2) movie-watching intention can be predicted by thematic attractiveness, perceived enjoyment, act, and relate; and (3) gender differences have been found in some theoretical relationships. Further managerial implications are discussed.

1. Introduction

Today, many people browse the Internet, watch films, check emails, text or talk with friends, and play games via their personal mobile devices. Among these activities, mobile games have become many users' major leisure activity as they can carry their portable game devices (mostly mobile smart phones) with them everywhere all the time. It is estimated that mobile games account for the majority of time spent on mobile devices: about 48% on the iPad, 31% on the iPhone, and 53% on Android devices (Thomas, 2013).

Recently, the appearance of *mobile movie-themed games* (MMGs) has captured the attention of either game players or movie fans in almost every demographic. The MMG is one specific kind of mobile game, which is based on a movie with the same leading characters, film aesthetics, and sophisticated cinematic techniques. The game Minion Rush was voted a "kids' favorite gaming experience" and has had more than 150 million downloads (Workman, 2013). The box office for the movie grossed over US$543 million worldwide, compared with its budget of US$69 million (Box Office Mojo, 2011).

The emerging phenomenon of MMGs is worth studying for several reasons. Practically, it is estimated that the market value of mobile game applications was US$12 billion in 2011, and was expected to double by 2016 (Market Press Release, 2013). While there has been an increasing amount of academic research on mobile games, little attention in the literature has been paid to users' post-acceptance of mobile games, and practically none to mobile movie games.[1] In addition, MMGs provide a virtual reality for players (Hsiao and Yang, 2015). Every player can play the role of a leading character, conducting an expedition or fighting, depending on the movie theme. Thus, we argue that playing MMGs can draw the audience's attention to the movie, either in the theater or after it is released online or as a DVD. As such, this study stems from these research questions: (1) What are the key elements of MMGs which influence player loyalty? and (2) Will consumer experience with MMGs prompt them to watch the movie?

To answer these questions, we conducted this study to fill the knowledge gaps and identify the antecedents of MMG post-acceptance behavior, based mobile game and experiential marketing research. Mathur (1971) suggested that experiential marketing is a powerful strategy that connects consumers with products or brands in personal and memorable ways. Sheu et al. (2009) further pointed out that player experience has an immediate influence on their consumption desire. Thus, creating a profound and satisfactory experience for players could improve their subsequent behavior. Research on MMG user acceptance is thus worthwhile for providing information for MMG development and implementation.

---

* Corresponding author.
  E-mail addresses: maehsiao@gmail.com (C.-H. Hsiao), ky.nctu@gmail.com (K.-Y. Tang).

[1] The query used "mobile game" as the search topic for the Science Citation Index (SCI) and Social Science Citation Index (SSCI) from 2007–2016. We found 63 papers in total, only 5 of which were found in the business and management area, and none of which focused on movie games. The search was conducted on June 1, 2016.

As far as we are aware, this is the very first attempt to present a theoretical model of MMGs.

2. Theoretical background

2.1. Overview of mobile game research: Theories and key determinants

MMGs are the focal interest of this study, a kind of mobile game with a movie-themed focus. There is rather limited research on MMGs. We reviewed the past research beginning with that on mobile games in general because both mobile games and MMGs share some common features and their influential factors.

Among the various theories adopted in the past research on mobile games, the *theory of technology acceptance* is often used as the foundation model to explain why people play games. Of its two key factors, *ease of use* may be considered as a contributor, but *perceived usefulness* is less important in explaining engagement in game playing for leisure purposes (Ha et al., 2007; Leong et al., 2013). Another influential theory to explain game playing is flow theory (Csikszentmihalyi, 1991). In the gaming context, *flow experience* refers to one's complete concentration on game playing due to the required balance of skill and challenge. This theory is widely applied to explain the engagement of players when playing games (Choi and Kim, 2004; Hoffman and Novak, 2009; O'Cass and Carlson, 2010). Yang et al. (2009) suggested two kinds of *experiential value – hedonic and utilitarian value –* as antecedents of loyalty in online game service. In addition, the gratifications theory proposes that people's multiple needs can be met when playing games. For example, Wu et al. (2010) showed that players' multiple gratifications (i.e., achievement, enjoyment, and social interaction) and service mechanisms affect their playing continuance.

On the other hand, mobile game studies have focused on exploring the key determinants of mobile game playing. For example, Ha et al. (2007) identified that flow experience and perceived enjoyment are very important determinants of mobile gamers' attitudes, whereas perceived usefulness is not. Leong et al. (2013) suggested that perceived usefulness, perceived ease of use, social influence, and perceived enjoyment are positively associated with consumer intention to engage in mobile entertainment (e.g., games, MP3, images, ring tones). Wu et al. (2010) Park et al.'s study (2014) also identified perceived enjoyment and usefulness as determinant variables of player intention to use mobile social network games. In their study, perceived mobility served as a motivational factor of perceived usefulness. More recently, Hsiao and Chen (2016) explored various value factors of the purchase intention of mobile games and concluded that playfulness is the most influential factor on users loyalty to games among players of both free and paid games.

Although the research on mobile games is relatively sparse, it provides rich insights for identifying the key determinants of mobile game playing, such as perceived enjoyment and flow, which are also factors of experiential values. The distinguishing feature of mobile movie games which differentiates it from other mobile games is that the theme design and characters of movie games are directly derived from a film. In this sense, an additional experiential factor related to the movie theme design is needed. Thus, from the perspective of experiential marketing, the current study explores the key determinants of MMG loyalty and movie-watching intention.

2.2. Consumer Loyalty and Behavioral Intention

An earlier marketing researcher defined loyalty as a deeply held commitment to repurchasing or repatronizing a product or service consistently in the future (Oliver, 1979). Other literature from the advertising perspective has characterized the behavioral dimension of loyalty by consequential actions, such as repeat purchase and word-of-mouth recommendation (Day, 1969). Combining these two streams, we define *customer loyalty* as repeat playing and recommendation of the movie games.

Revenue for mobile games comes from in-app purchases and micro transactions, which are small but constant and frequent. However, gamers easily to switch to other new games since most mobile games are free to play, or charge only a minimal fee. Moreover, a considerable number of online games are deleted shortly after installation (Wu and Liu, 2007). As such, we include loyalty as an important behavioral consequence in the context of mobile games.

Consistent with most prior studies, our focus is on behavioral intention rather than on the behavior itself. Previous literature has contended that users' behavioral intention approximates or projects their actual behavior (Ajzen, 1991). In the current study, we include movie-watching intention as another dependent variable. Previous studies have asserted that user experience for MMGs can produce positive outcomes related to mobile game playing, such as favorable attitudes or intentions regarding the mobile game or movie theme (Luo et al., 2011). This leads to playing of the game or movie watching intention (Wolfson and Case, 2000). In this sense, MMGs can be considered as a novel strategy for promoting movies.

2.3. Experiential marketing and mobile games

Earlier consumer and marketing literature has recognized the importance of *experience* as the core element of experience economy and experiential marketing (Holbrook and Hirschman, 1982). Frow and Payne (2007) defined *experiential marketing* as a means of getting customers involved in an experience through the creation of emotions, leading to enjoyment of the experience. In contrast with traditional marketing's product-oriented functional features (e.g., price and quality), the experiential benefits link customers with product or service brands via their pleasant memories (Mathur, 1971). In addition, experiential elements benefit business with several outcomes, such as customer satisfaction (Brakus et al., 2009; Oh et al., 2007), brand attachment (Chang and Chieng, 2006), brand attitudes (Zhang et al., 2009), and loyalty or behavioral intentions (Brakus et al., 2009; Su, 2011).

There are different types of classifications of consumer experiences. Holbrook and Hirschman (1982) were the first to conceptualize consumer experiences as fantasies, feeling, and fun. Fun includes playful leisure activities, sensory pleasures, daydreams, aesthetic enjoyment, and emotional responses. Later, Schmitt (1999) presented five types of customer experience, referred to as the well-known *strategic experiential modules*: sense, feel, think, act, and relate. According to Schmitt (1999), the sensory goal is to stimulate consumers' perceptions of pleasure through seeing, hearing, smelling, tasting, and touching. *Feel marketing* aims at stimulating customers' feelings of inner pleasure and emotions regarding a specific product or service. The objective of *think marketing* is to activate innovative thinking through creative involvement with consumers that may result in a reevaluation of the products. The *act experiential module* focuses on interaction with others, alternative lifestyles, and physical experience. Finally, *relate marketing* goes beyond all the other experiences by relating the individual to the broader social and cultural context (e.g., self-confidence or a brand community).

Following Schmitt's strategic experiential modules, some similar categorizations have also been proposed. For instance, Dubé and Le Bel (2003) distinguished four pleasure dimensions (emotional, intellectual, physical, and social pleasures), which are similar to four of Schmitt's experience modules (feel, think, act