

Hedonic, Utilitarian, and Social Motivations for Consumers Purchase Mobile in-App Content Behavior

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Abstract

The mobile game is a popular issue in e-commerce. A number of studies have drawn attention to playing a mobile game, but less to talk in-App content (items). The in-App content belongs to the digital content extend, it could sale to the player for more fun in play digital game. This study based on the hedonic, utilitarian, and social motivations to investigate purchase behavior. The findings have important implications for researchers and game designer and managers, particularly when designing mobile in-App content needs as a digital product. Furthermore, this study forms an essential reference for future gamer behavior processes research.

Keywords: Mobile in-App content, hedonic motivation, utilitarian motivation, social motivation, perceived value

1. Introduction

With the popularization and rapid development of the Internet, the maturity of wireless communication equipment (Smart phone, Tablet), and the continuous improvement in the quality, specifications, functions, and costs of mobile digital devices have made them very widespread and affordable. Consumers use these devices more conveniently to access the Internet anytime, anywhere, and experience new services (e.g., entertainment and study). For the mature market for smart mobile devices, one of the biggest features is the operating system, which provides users with the ability to download APPs (Mobile applications) and enriches their functions. Various new APPs and services are continuously being introduced and becoming more and more convenient, providing supplementary fun for different needs in this information age. Software Industry and E-commerce are also relying on APP services to make considerable profits.

Why are so many users willing to download or purchase other products or services within an APP after the manufacturers and developers have finished developing it and put it on a sales platform? Kang (2014) and Okumus and Bilgihan (2014) discussed the technology acceptance model (TAM), cause the main function is that the system provides real-time useful and easy-to-use functions, which make users

feel that it is quite convenient and can solve the problems when they are want to deal with in real time. From use and gratifications theory's (UGT) viewpoint, users can quickly interact and socialize with people through the system, which provides real-time and effective media communication management. Therefore, aside from general users, even general enterprises will make good use of APPs as a form of a marketing media solution.

At the beginning of APP mobile game market development, Ha, Yoon, and Choi (2007) explained why players downloaded mobile games from TAM, and Wu, Wang, and Tsai (2010) tested it with UGT as its theoretical background. These studies provided different explanations from different perspectives and put forward suggestions for academic and industrial development; for game makers, purchases through mobile phones make up a popular business model for mobile games. Hsiao and Chen (2016) researched this aspect of consumer behavior, divided the game value into four categories, include emotion value, performance value, social value, money. and combined players' loyalty to the game to understand the purchase intent, showing that loyalty has a significant impact. However, they also found that social value has no significant relationship with in-App purchase intent.

This research believes that when the game is played meet a threshold, it will be practical

for people with the proper financial ability to purchase it, as this helps them improve their ability in the game and pass through levels, which is a quick solution for players who cannot pass a level. For some consumers who purchase the games, it may help build up confidence after buying the products, meet new friends, have a common topic with friends, satisfy interpersonal interaction, compete with others, win over others, or satisfy vanity. Thus, there is a socializing value. Huang, Bao, and Li (2017) and Ghazali, Mutum, and Woon (2018) research showed that social motivation is a significant factor that affects players to continue playing mobile games or social games. These findings show that there are some different arguments in the current literature results.

Buying products in an in-App content should improve self-esteem, achieve satisfaction, and make friends, but does the socializing value really exist? Therefore, from the viewpoint of motivation, we took hedonic motivation and utilitarian motivation in combination with social motivation as the construct to understand whether or not value exists to explain the intent and behavior of buying in-App content. We explore our question through a quantification study of the mobile game player in Taiwan. Based on this, our overall guiding research questions can be phrased as follows:

- What is the importance of perceived value for user purchase in-APP game content?
- Which motivations influence the player has higher perceived value?
- What are the outcomes of the social motivation in mobile game?

2. Literature Review

2.1 Perceived Value

Perceived value (PV) is the most representative psychological construct in the current literature of consumers' purchase intent of goods and subsequent behaviors. Generally speaking, consumers form a buying behavior due to their evaluation of products, brand or human factor, recommendations, and other stimulating factors when they make purchase decisions. Cognitive value is an important reference factor. Its promotion affects the intent toward purchasing mobile game products, which should positively correlate with users' purchase intent.

PV was first proposed by Dodds, Monroe, and Grewal (1991), and it focuses on the exploratory research of consumers and proposes the relationship model among price, quality, and service. Many scholars have since put forward various definitions and opinions of PV.

Kolter (1997) pointed out that PV is the gap between a customer's cognitive value and cognitive cost. If PV is positive after gap summarizing, then it indicates that the customer has acquired a value, whereas if PV is negative, then it indicates that the customer does not have the feeling of acquiring a value. Lovelock (2010) believed that PV is the customer's measurement and choice between perceived benefits (PB) and perceived costs (PC). Khraim, Al-Jabaly, and Khraim (2014) pointed out that PV is the gap or result of an evaluation between perceived benefit and perceived sacrifice. This means that when researchers want to evaluate PV, they can discuss the design of patterns from two different levels: positive correlation and negative correlation, which achieve a better balance in interpretation.

2.2 Social Motivation of Mobile Game

Although most of the time a digital game is played by one person, with the progress of science and technology it can be connected through Internet, allowing many people to play online at the same time for reasons of online communication and social interaction. In fact, a digital game is a kind of leisure interest, just like assembling models and jigsaw puzzles, and so even if it is played by one person, it can still generate a relationship of social interaction. Hagel and Armstrong (1997) discussed the value of a game from the consumers' viewpoint, believing that communication in the game can enhance interpersonal interaction and gather consumers with the same hobbies and tastes, resulting in interpersonal relationships and benefits. These social activities do not exist in the game, but rather in the behavior after the game. This also encourages players to get more involved.

Some games therefore have a large number of participants, and so players can meet more friends. Lazzaro (2004) pointed out that some players are actually attracted by the socializing, interactive, and social factors of a game, instead of the game itself, showing the importance of interpersonal relationship. In conclusion, socializing motivation lies in the interpersonal relationship formed by the interaction and communication among people, where people find trust and a sense of belonging. The same is true of virtual digital games, which are based on interpersonal relationships and bring together people who have the same hobbies and interests to play together, and get a sense of belonging and self-identification.

2.3 Hedonic and Utilitarian Motivation

Hedonic and utilitarian motivation is a very suitable viewpoint in the study of consumer buying behavior (Childers et al., 2001;

Vieira, Santini, & Araujo, 2016). At present, there are also many quite good research results (e.g. Anderson et al., 2014; Chiu et al., 2014). Hedonic motivation refers to a person who wants to have a enjoyment perception and thus exhibits further behavior. Its significance lies in positive emotions such as the fun and happiness felt in experiencing activities. For digital games, enjoyment has different perceptions, including being able to relax, being in a pleasant mood, which all can serve as a form of enjoyment. In fact, the process of people's enjoyment is usually accompanied with things related to fantasy, feeling, and so on, making people feel happy and interesting. In addition, from the perspective of the use of products and services, the more enjoyment of towards products and services, the higher their purchase intent is.

Utilitarian motivation usually refers to the functions and tasks that a product should have (Sherry, 1990). Overby and Lee (2006) pointed out that when consumers purchase goods, in addition to the consideration of price and convenience of purchase; whether the quality of the purchased goods meets the demand is one of the factors to which they attach great importance. In fact, people buy the more expensive the goods, the higher the quality expectations he or she requires. For these high-priced products, some consumers use social networking sites to understand the actual use experience of other consumers who have purchased

the products, so as to understand the utility and decide effectively whether or not to purchase the products (Dennis et al., 2010). Utility is task-oriented. When consumers purchase goods that they need, the utility of the goods and whether they satisfy the consumers' psychology both affect consumers' purchase intent. The same is true for in-App content purchases. When buying various products in the game, consumers will choose products that will improve and help themselves to meet their own needs.

3. Research Method

The main purpose of this study is to understand the influence of consumers on their purchase intent in mobile applications and to explore the relationships among "perceived value", "purchase intent", "utilitarian motivation", "social motivation", and "hedonic motivation". After reviewing the relevant literature, this study proposed a research framework diagram as shown in Figure 1. We also present the following hypotheses.

- H1. Utilitarian motivation positively influences perceived value.*
- H2. Social motivation positively influences perceived value.*
- H3. Hedonic motivation positively influences perceived value.*
- H4. Perceived value positively affects intention to purchase in-APP game content.*

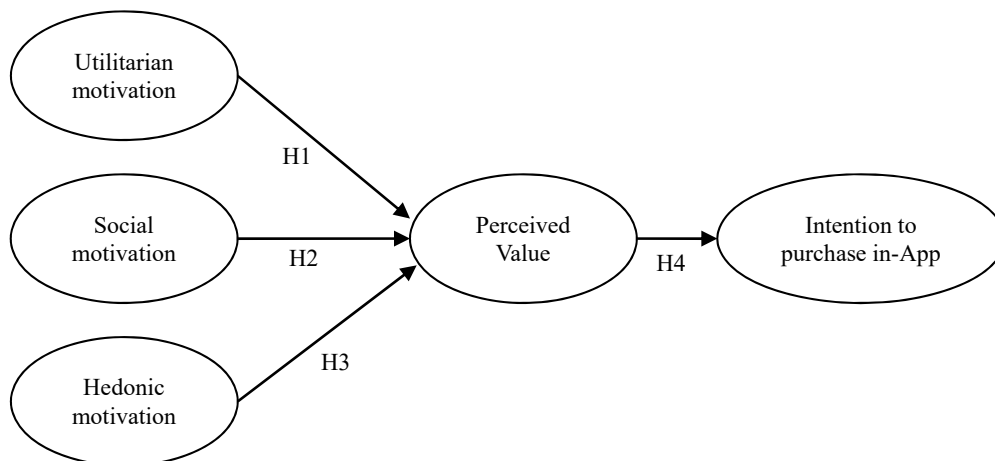


Figure 1: Hypothesized Model of Testing Variables

All items were adapted from previously validated instruments when possible (See Table 1). To ensure content validity, the questionnaire used in this study was adapted from the original measurement scales. All items were measured on a 7-point Likert scale. The response scale where 7: Strongly agree, 6: Mod-

erately agree, 5: Slightly agree, 4: Neutral, 3: Slightly disagree, 2: Moderately disagree, and 1: Strongly disagree. The subjects of the study were mainly game players using mobile digital devices, and online consumers were invited to fill out the online questionnaire.

Table 1: Measurement Item

Research variable	Item	References
Utilitarian motivation	Buying a product can improve my game ability. Buying products can reduce my waiting time. Buying products has practical value.	Babin, Darden, and Griffin (1994)
Social motivation	I can show my friends or others the ability I have improved after buying the game items. I will buy the items (contents) in the game through other people's suggestions.	Abfalter, Zablic, and Mueller (2012)
Hedonic motivation	Buying the in-App game items can improve my self-confidence. The design of the purchased in-App game product has aesthetic feeling and is very attractive to me. I think the in-App game products I bought are very entertaining. The in-App game products I bought can make me enjoy more of the game.	Lee and Overby (2004)
Perceived value	The content of the purchased product provides me with value. I think the cost of buying the product is valuable. I think most of the commodity prices are quite reasonable.	Cronin, Brady, and Hult (2000) Wang (2010)
Intention to purchase in-App	I may buy the in-App game products in the future. I will buy the in-App game products in the future. I am going to buy the in-App game products in the future.	Park and Lee (2011)

4. Results and Discussion

We tested our model for convergent and discriminant validity. We analyzed our model using IBM SPSS and Amos. The results of our theoretical model testing are shown in Figure 2 and Table 2. The results showed that our model met or exceeded the accepted thresholds. The survey was completed by 307 respondents (after incomplete questionnaires were removed) as of May 31, 2018; after which the survey website was closed.

Cronbach's alpha of measurement items were all above 0.60, indicating that the overall questionnaire had good internal consistency and that the scale was stable and had general reliability. The composite reliability of utilitarian motivation, social motivation, hedonic motivation, perceived value and intention to purchase in-App were 0.747, 0.823, 0.820, 0.768 and 0.758.

Vieira, Santini, and Araujo (2016) pointed out that not all products purchased by consumers have a significant positive correlation with hedonic and utilitarian motivation. According to the results of this study, these two motivations can be used to explain the existence of the positive value of game products. After adding social motivation, the model shows that

R-square for consumers' in-App content purchase intent reaches 0.343. In addition, social motivation has a positive correlation impact on perceived value, which is stronger than utility motivation in the data results, showing that the interaction between people in the game forms a social relationship. We think that people have a high intention of finding trust and a sense of belonging among themselves there. Most players have the same interests and find people to play together. It is important to interact, compete, and gain the recognition and trust of others in a game. Therefore, it is suggested that game manufacturers consider that the social interaction function can be realized as one of the considerations of the game function when designing the game.

For the mobile game company, practitioners need to change their idea and business strategy to design compliance with social behavior policies to be regarded as a necessity rather than a hurdle that impedes gamer from playing their game. Our findings suggest that mobile game need to stress that they could have the funny, valuable, and social function if the gamer needs to purchase in-App content. This information could be spread through game content, social media, and advertising, etc.

Table 2: The Summary of Tested Model Fitness (N = 307).

	$\chi^2/d.f$	GFI	RMSEA	NFI	CFI	PNFI	PCFI
Model	2.393	0.923	0.067	0.925	0.955	0.705	0.727
Thresholds	< 3	> 0.9	< 0.08	> 0.9	> 0.9	> 0.5	> 0.5

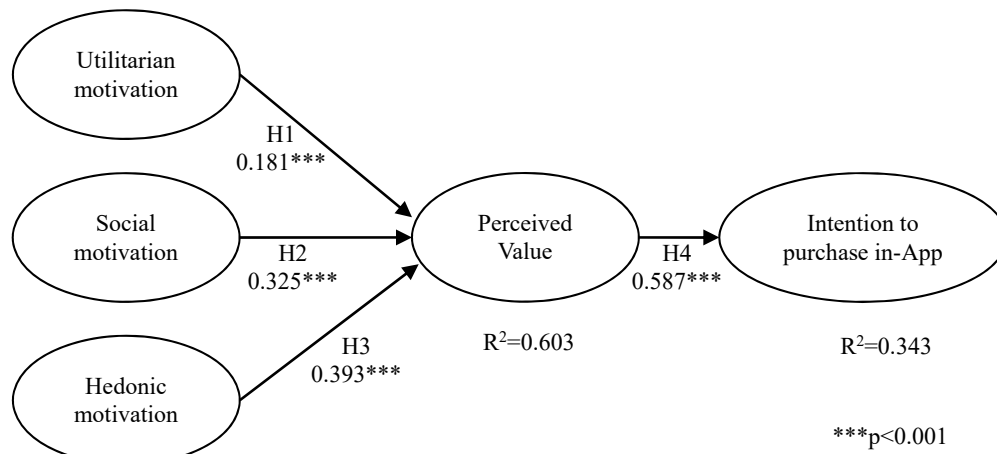


Figure 2: SEM Results for Hypothesized Model

These findings have some implications for in-app marketing and theoretical. First, the mobile game company's marketing activities should consider the player's social behavior, including the game forum, game group, and any popular social media. Consumers believe that social activities compared to vintage marketing had more interesting. Second, in comparing the influence of three motives drivers on purchase intention, this study found significant positive impacts, especially in social motivation. Social motives are connected to perceive value for the mobile game. Academics may have more in-deep discuss in "social concept" choices.

5. Conclusions

Hsiao and Chen (2016) are quote Zhao and Lu (2012) research report's "connectedness" as social value. The explanation of the possible questions may not apply to the socializing value of mobile games. In fact, Hsu and Lin (2016) conducted different results, based on the ABC Model of Attitudes, to demonstrate that socializing attitudes have a positive impact on in-APP content purchases. The result of this present study is the same as that of Hsu and Lin (2016). Users have social motivation and therefore will have the intention to buy in-App game products. From the above research, we can see that the three motivations have a positive correlation to users' perceived value and that the relative perceived value will also affect the result of purchase intent and increase the possibility. This means if the content of the mobile game is valuable, then it will affect a player's purchase intent. Game design companies should develop valuable virtual goods, as they can attract more buyers to buy other goods in mobile games.

Our study had the typical limitations. First, the data was obtained from web sites, which may include biases unique to the sample. Therefore, care should be taken in a different

age to other mobile game styles. Second, our study was limited in terms of its use of three motivations as the variables. Measures of intention are widely accepted as needed, especially in customer shopping research, there is also strong evidence of a strong relationship between intention and purchase behavior. Although these were rigorously validated for study validity, it is possible that compliance results may be different for scenarios describing other situations.

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