

# Research on the Quality of Game Consumption Relation Based on Attachment Mechanism

Min Qian, RongJun Ni\*, ShiFan Wei

School of Economics and Management, Nanjing University of Science and Technology, Nanjing 210094, China

\*Corresponding author e-mail: 13855441216@163.com

**Abstract.** As the mobile gaming market continues to evolve and the competition in mobile gaming applications intensifies, it has become more and more important to establish a lasting relationship between enterprises and players. This article explores whether convenience, sociality, and game attachment affect the quality of relationships from a consumer perspective and studies the regulatory role of attachment anxiety in this relationship. Empirical results show that convenience and sociality all have a significant positive impact on game attachment, which in turn enhances the quality of player-game relationship, and also verifies the negative regulation of attachment anxiety. On this basis, it is suggested that game makers should improve the sociality of the game application, strengthen the connection between different subjects and improve the anxiety of the players so as to obtain better relationship quality while optimizing the operation convenience of the game itself.

## 1. Introduction

With the increasing number of smartphone users, the mobile game industry is in full swing and has become one of the major factors driving the rapid development of the mobile Internet industry. While the rapid development, the entire mobile game industry can not help but expose a lot of speculation, many developers just to get a one-time revenue, did not consider the long-term business, in order to obtain the developer loyalty of users, build gamers and mobile games or business The emotional attachment relationship will become the developer's biggest concern.

All along, a large number of domestic and foreign research literature published on the game, but most of the game design, game development as the theme. The other part of the research on consumer behavior is mostly on the game player on the computer client network game research. The scholars who study the mobile game only remain in the game developer's access to the user or promotion phase of the game. A large number of studies show that just providing a satisfactory experience does not help enterprises to obtain customer loyalty, and the research direction of attachment theory basically matches with the psychology connection of customers pursued by enterprises. The introduction of attachment theory into the study of mobile gamers is an important complement to the theoretical gaps in this area.



## 2. Theoretical review and research hypotheses

### 2.1. Convenience and the relationship between the game attachment

Convenience is the game player's direct perception of the accessibility of a mobile game, as the definition shows: ease of access; playability anytime, anywhere; ease of first-time entry. Game users in free time choose to participate in mobile games for physical and mental relaxation, kill time and so on. High accessibility makes the game user more likely to use the game and has a higher probability of choosing the game, which also helps to form a game attachment, and even reversely forms the user as much time as possible to participate in the game. Hyun's (2013) research shows that game interfaces should be designed to be easy, reliable, and useful to allow players to concentrate on playing games rather than on complex interfaces and operations. As a result, perceiving the convenience of a gaming app makes it possible for gamers to feel self-fulfilling when they touch it, creating an attachment to the game. Based on the above analysis, this study proposes the hypothesis:

**H1:** Convenience positively influences how much a game player's attachment to a mobile game

**H1a:** Convenience has a positive impact on the game player's acceptance of mobile games

**H1b:** Convenience positively influences how much a player likes a mobile game

**H1c:** Convenience has a positive impact on gamers' reliance on mobile games

### 2.2. Social relationship with the game attachment

Liu Shengzhi's research indicates that the virtual organizations appearing in games play an interactive and interesting role in helping each other and having the same personal goals, and increase the collective identity of players and increase the frequency and duration of game players participating in the games. It is the online virtual community that inspires gamers' sense of belonging and identity to games and brands, the offline exchange of experience with friends, the competition for grades, and social attributes that align with the people around them, the game generates a sense of identity and belonging, which in turn creates a game attachment. Through the A-R-C theory, gamers participate in online and offline social activities related to a particular game to meet their need to find a sense of belonging, which can lead to attachment to the game. So this article makes the following assumptions:

**H2:** Social influence positively affects the game player's attachment to the mobile game

**H2a:** Social influence positively affects the game player's acceptance of mobile games

**H2b:** Social influence positively affects the game player's preference for mobile games

**H2c:** Sociality positively influences gamers' reliance on mobile games

### 2.3. Relationship between game attachment and relationship quality

Game attachment is a game player's participation in the game through the formation of cognitive and emotional relationship with a specific game, and thus lead to the preference for this game while other similar games or brands tend to exclude the use of. It is possible that game attachment is a process variable that affects the outcome variable of relationship quality. Belaid studied the role of brand attachment in the relationship between consumers and brands. The study found that brand attachment positively affects brand trust and brand promise, and indirectly affects brand loyalty through the above two variables. Since a large number of documents show that the formation of attachment relationship between customers and enterprises in business relationship is of great benefit to the relationship marketing of enterprises, this article also makes a similar assumption on the influence of game attachment on the quality of relationship:

**H3:** The level of attachment of gamers positively affects the quality of their relationship with the game

**H3a:** Game player's game approval positively affects the quality of the relationship with the game

**H3b:** The level of gameplay a player enjoys positively affects the quality of his relationship with the game

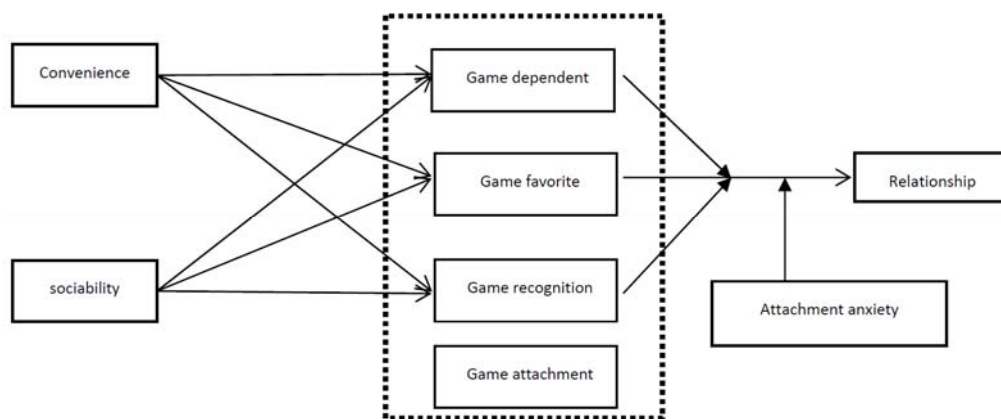
**H3c:** The game player's dependence on the game positively influences the quality of the relationship with the game

#### 2.4. Attachment anxiety regulatory role

The premise and the significance of this paper that the attachment anxiety level can be used as a conditioning factor lies in the heterogeneity of different players in building relationships with games and their affiliated companies. That is, not all gamers are eager to establish closeness with game makers, lasting relationship. Mende and Bolton's research also points out that in the case of companies that have established business relationships with their customers, attachment-anxiety customers are more reluctant to end the relationship, and those customers who maintain the most customer-firm relationships retain customers. The cost is relatively low. Therefore, the hypothesis of this paper is as follows:

**H4:** The level of attachment anxiety of gamers has a positive effect on the relationship between game attachment and relationship

According to the above theoretical analysis, this paper presents the research model, as shown below:



**Figure 1.** Model of the impact of convenience, sociality, game attachment and attachment anxiety on relationship quality

### 3. Results and analysis

#### 3.1. Correlation Analysis

Correlation analysis of all the variables in this study showed that there was a significant positive correlation between convenience, sociality, game dependence, game approval, game preference and relationship quality, all of which were significant at 0.01 level (Table 1).

**Table 1.** Correlation between the variables

variable	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	-.25**	1										
3	-.06	-.15**	1									
4	-.24**	.45**	-.11*	1								
5	.19**	-.24**	-.14**	-.31**	1							
6	.01	.01	-.29**	.07	-.01	1						
7	.03	-.12*	-.09	-.04	.03	.63**	1					
8	.03	-.01	-.23**	.06	.02	.72**	.72**	1				
9	.11*	-.15**	.03	-.07	.01	.47**	.71**	.62**	1			
10	-.04	.06	-.27**	.11*	-.02	.66**	.59**	.67**	.45**	1		
11	.03	-.08	-.10*	.01	.02	.65**	.79**	.75**	.73**	.72**	1	
12	-.02	.09	-.33**	.12*	-.02	.58**	.45**	.53**	.41**	.69**	.59**	1

### 3.2. Regression analysis

Model 1 is the regression model with only control variables and model 2 is the regression model with variables introduced.

**Table 2.** Convenience of the game attachment and its dimensions regression analysis

	Model 1				Model 2			
	game Attachme nt	game favorit e	Game recognitio n	Game depende nt	game Attachme nt	game favorite	Game recognitio n	Game depende nt
$\beta$					0.69***	0.71***	0.48***	0.64***
$R^2$	0.06	0.03	0.09	0.06	0.52	0.52	0.31	0.46
Adj. $R^2$	0.05	0.01	0.08	0.05	0.51	0.51	0.30	0.45
Fvalue	5.06***	2.14	7.59***	4.77***	70.06***	71.08***	28.93***	54.96***
$\Delta R^2$	0.06	0.03	0.09	0.06	0.46	0.49	0.22	0.40
$\Delta F$ value	5.06***	2.14	7.59***	4.77***	371.18***	404.73**	123.79***	288.49***

**Table 3.** social attachment to the game and its dimension regression analysis

	Model 1				Model 2			
	game Attachme nt	game favorit e	Game recognitio n	Game dependen t	game Attachme nt	game favorit e	Game recognitio n	Game dependen t
$\beta$					.72***	0.10	0.63***	0.67***
$R^2$	0.06	0.03	0.09	0.06	0.54	0.04	0.46	0.46
Adj. $R^2$	0.05	0.01	0.08	0.05	0.53	0.02	0.45	0.46
F value	5.06***	2.14	7.59***	4.77***	75.62***	3.45*	54.88***	56.52***
$\Delta R^2$	0.06	0.03	.088	0.06	0.48	0.01	0.368	0.41
$\Delta F$ value	5.06***	2.14	7.59***	4.77***	402.55***	2.37*	265.76***	297.30***

**Table 4.** Game attachment regression relationship between the quality of the results

	Model 1			Model 2		
	$B$	$\beta$	$P$	$B$	$\beta$	$P$
constant	3.76			0.55		
gender	0.01	0.00	0.93	0.01	0.00	0.89
age	-0.08	-0.11	0.05	-0.02	-0.02	0.52
Education	-0.09	-0.12*	0.02	0.06	.08**	0.01
income	0.03	0.06	0.34	0.01	0.02	0.66
profession	0.00	-0.01	0.86	0.01	0.02	0.61
Game attachment				0.84	0.84***	0.00
$R^2$		0.02			0.69	
Adj. $R^2$		0.01			0.68	
F value		1.76			142.74***	
$\Delta R^2$		0.02			0.66	
$\Delta F$ value		1.76			829.09***	

**Table 5.** Game attachment dimensions of the relationship between the quality of regression analysis

	Model 1			Model 2		
	<i>B</i>	$\beta$	<i>P</i>	<i>B</i>	$\beta$	<i>P</i>
constant	3.76			0.54		
gender	0.01	0.00	0.93	0.01	0.00	0.88
age	-0.08	-0.11	0.05	-0.01	-0.01	0.78
Education	-0.09	-0.12*	0.02	0.04	0.05	0.10
income	0.03	0.06	0.34	0.01	0.02	0.51
profession	0.00	-0.01	0.86	0.01	0.01	0.70
Game recognition				0.12	0.13**	0.00
game				0.42	0.47***	0.00
favorite						
Game dependent				0.29	0.34***	0.00
$R^2$		0.02			0.71	
Adj. $R^2$		0.01			0.70	
F value		1.76			116.83***	
$\Delta R^2$		0.02			0.68	
$\Delta F$ value		1.76			301.89***	

**Table 6.** Attachment anxiety in the relationship between game attachment and the quality of the regulatory role of testing

	Model 1			Model 2			Model 3		
	<i>B</i>	$\beta$	<i>P</i>	<i>B</i>	$\beta$	<i>P</i>	<i>B</i>	$\beta$	<i>P</i>
constant	3.76			0.25			0.35		
gender	0.01	0.00	0.93	0.01	0.01	0.75	0.01	0.01	0.83
age	-0.08	-0.11	0.05	-0.02	-0.04	0.27	-0.02	-0.04	0.25
Education	-0.09	-0.12*	0.02	0.09	0.13***	0.00	0.08	0.12***	.000
income	0.03	.06	0.34	0.00	0.01	0.85	0.01	0.02	0.57
profession	-0.00	-0.01	0.86	0.01	0.02	0.48	0.01	0.02	0.40
Game attachment				0.71	0.72***	.000	0.70	0.70***	.000
Attachment anxiety				0.20	0.23***	.000	0.21	0.23***	.000
Game attachment * Attachment anxiety							-0.06	-0.11***	.000
$R^2$	0.02			0.72			0.73		
Adj. $R^2$	0.01			0.71			0.72		
F value	1.76			142.55***			131.82***		
$\Delta R^2$	0.02			0.70			0.01		
$\Delta F$ value	1.76			483.72***			16.68***		

To sum up, except for the assumption of H2b and H4, the remaining assumptions have been validated.

#### 4. Conclusion

The results show that convenience and sociality all positively influence the degree of attachment of the game player to the mobile game, and then positively affect the quality of the relationship with the game, in which the convenience can significantly and positively affect the three players' game attachment behaviors Dimension, while sociality can only positively influence the game recognition

and game dependence of the player's game attachment behavior, and has no significant positive effect on the game favorite ( $\beta = 0.10$ ,  $p > 0.05$ ). The main reason for this result is that "game loving" is defined as a steady emotional bond between gamers and specific game applications in this study, whereas social factors mainly play a role in the relationship between players and players in the game. Once the relationship is formed and stabilizes, the player will be attached to the relationship of the community, and the game application itself does not have emotional contact, it will not affect the player's love of the game.

In addition, this paper introduces the player's level of relationship anxiety as a manipulative variable to explain this mechanism. The result shows that the player's attachment anxiety level significantly negatively regulates the effect of game attachment on the relationship quality. That is, the higher the attachment anxiety level, the quality of the relationship between the game application and the weaker the effect. Since individuals with high levels of attachment anxiety do not have direct contact with the business and trust only the workers they come into contact with, the customer commitment to the business and the customer's access to the business in the event of a change of person or customer's inaccessibility to the business Trust will cease to exist, but instead lead to the negative impact of high attachment anxiety levels on customer business commitments and trust.

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