



The Impact of Perceived Value on Consumer In-App Purchase Intention of Chinese Mobile Games Market

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Abstract. With the rapid expansion of Internet users and the continuous growth of China's mobile game user base, it is very important for developers and industry stakeholders to better understand the factors affecting in app purchases.

This study uses the PERVAL model to explore consumer attitudes towards emotional, quality, social, and price values, as well as their impact on in app purchase intention. This study was based on a questionnaire survey and collected responses from 403 Chinese mobile game players.

The research results indicate that perceived credibility, playability, social interaction, and pricing significantly affect consumers' in app purchase intention. It is worth noting that games with more attractive social and reasonably priced experiences are more likely to drive in app purchases.

Keywords: Chinese mobile games market, perceived value, consumer in-app purchase intention.

1 INTRODUCTION

1.1 Background and Significance of Problem

The 51st China Internet Development Status Report revealed that as of December 2022, the number of internet users in China had surged to 1.067 billion, indicating a notable increase of 35.49 million from the previous year. Concurrently, the internet penetration rate climbed to 75.6%, marking a 2.6 percentage point rise compared to December 2021. Mobile internet users also saw a significant uptick, reaching 1.065 billion, with 99.8% of internet users accessing the web via mobile phones (CNNIC, 2023).[3]

According to the "China Game Industry Report for January June 2023", the domestic game market's actual sales revenue for the first half of the year amounted to 144.263 billion yuan, experiencing a slight year-on-year decrease of 2.39% but demonstrating a promising month-on-month increase of 22.16%, suggesting a market rebound. The number of game users in China hit a historic high of 668 million people, representing a 0.35% increase from the previous year.[2]

China's game market is rapidly approaching the scale of the world's largest gaming market, the United States, particularly excelling in the mobile gaming sector. Gaming

remains a beloved form of entertainment for Chinese internet users, positioning the mobile game industry in China for continuous growth and maintaining its share of the global market (Wang, Y. 2023).[7] Despite the flourishing mobile game market in China, there exists a significant research gap concerning the purchasing intentions of domestic Chinese mobile game users. This oversight overlooks their unique preferences and requirements, emphasizing the need for a thorough exploration of how perceived value influences consumer in-app purchase intentions. This research imperative is essential for addressing the existing gap and enhancing our understanding of consumer behavior in the dynamic Chinese mobile gaming market.

1.2 Research Objectives

1. To study the level of the Impact of Perceived Value on Consumer In-App Purchase Intention of Chinese Mobile Games Market: Perceived fun, Perceived playability, Perceived social and Perceived price.
2. To analyze the Impact of Perceived Value on Consumer In-App Purchase Intention of Chinese Mobile Games Market.

2 METHODOLOGY

2.1 Research Framework

According to the PERVAL model (Sweeney & Soutar, 2001), consumer attitudes and behaviors towards purchasing are influenced by four different dimensions of consumer values: emotional, quality, social, and price value. Based on this framework, the following research framework is proposed, as shown in Figure 1.[6]

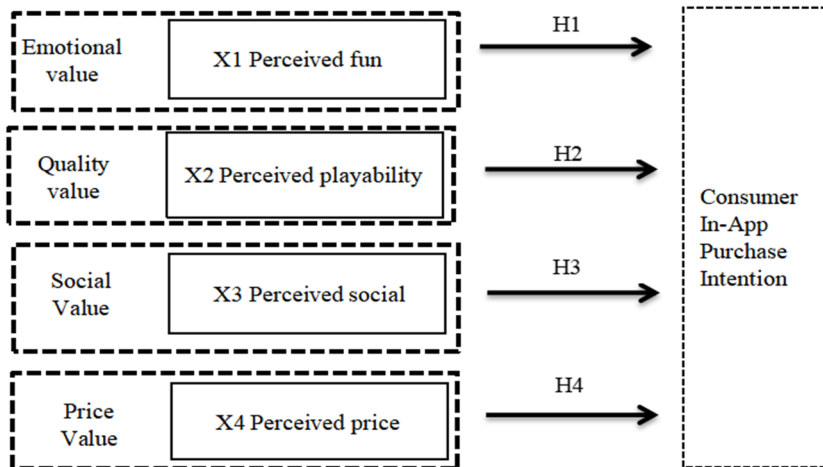


Fig. 1. Research Framework

2.2 Research Hypotheses

This study focuses on Chinese mobile game consumers and uses empirical analysis to test the following hypotheses.

H1: Perceived fun of mobile games have positive impact on consumer in-app purchases intention.

H2: Perceived playability of mobile games have positive impact on consumer in-app purchases intention.

H3: Perceived social aspect of mobile games have positive impact on consumer in-app purchases intention.

H4: Perceived price of mobile games have positive impact on consumer in-app purchases intention.

2.3 Questionnaire Design

Determine the issues and scope of questions to be consistent with the objectives, and the benefits of research by structuring the questionnaire, as shown in Table 1.

Table 1. Questionnaire Structure

Variable	Number of verses	Measurement Scale	References
Part 1			
Basic Information	5	Numerical	
Part 2			
Emotional Value[5]	5	Numerical	Hsiao & Chen (2016)
Quality Value[4]	5	Numerical	Goltermann (2020)
Social Value[1]	5	Numerical	Atmoko & Ellyawati (2021)
Price Value[1]	5	Numerical	Atmoko & Ellyawati (2021)
Part 3			
Consumer In-App Purchase Intention[5]	5	Numerical	Goltermann (2020)

This study utilized a 5-point Likert scale to assess all questionnaire items. Participants were asked to indicate their level of agreement or disagreement with each item statement. A rating of 1 corresponded to "Strongly Disagree" while 5 indicated "Strongly Agree".

2.4 Sampling Design and Data Collection

This study adopted a simple random sampling method to randomly select samples from Chinese mobile game players with equal probabilities. A total of 403 valid questionnaires were collected, and the validity and reliability of the collected data were examined.

3 RESULTS

3.1 Descriptive Analysis

As shown in Table 2, the sample has a slightly higher proportion of males than females, with the majority falling in the 25-34 age range and holding undergraduate degrees as their highest level of education. In terms of gaming time, most individuals spend between 1-6 hours per week playing games, with action and adventure games being the most popular genres.

Table 2. General Information

Variables	Category	n	percentage
Gender	Male	215	53.3
	Female	188	46.7
Age	Under 18 years	38	9.4
	18-24 years	89	22.1
	25-34 years	173	42.9
	35-44 years	54	13.4
	45 years over	49	12.2
Education level	Primary school and below	37	9.2
	Junior high school	51	12.7
	Senior high school/vocational school	88	21.8
	Undergraduate	168	41.7
	Graduate and above	59	14.6
Average weekly gaming time	Less than 1 hour	98	24.3
	1-2 hours	87	21.6
	3-4 hours	42	10.4
	5-6 hours	89	22.1
	More than 7 hours	87	21.6
Favorite game genre	Action games	136	33.7
	Shooting games	52	12.9
	Adventure games	106	26.3
	Strategy games	74	18.4
	Other games	35	8.7

3.2 Correlation Analysis

From Table 3, it can be seen that there is a certain degree of positive correlation between Emotional Value, Quality Value, Social Value, Price Value, and Consumer In-App Purchase Intention, with correlation coefficients ranging from 0.432 to 0.584. Among them, the correlation between Emotional Value and Consumer In-App Purchase Intention is the strongest, followed by the correlation between Emotional Value and Price Value. Therefore, each of the independent variables can be used in stepwise multiple regression analyses, placing the variables into the model one by one.

Table 3. Pearson Correlation

		Emotional Value	Quality Value	Social Value	Price Value	Consumer In-App Purchase Intention
Pearson Correlation	Emotional Value	1	0.432	0.455	0.518	0.523
	Quality Value	0.432	1	0.582	0.532	0.521
	Social Value	0.455	0.582	1	0.584	0.568
	Price Value	0.518	0.532	0.584	1	0.569
	Consumer In-App Purchase Intention	0.523	0.521	0.568	0.569	1

3.3 Regression Analysis

According to Table 4, it can be observed that the VIF values of each variable are within a certain range, indicating the absence of severe collinearity problems. There is statistical significance in the impact of emotional value, quality value, social value, and price value on consumers' purchase intentions within the application. The influence of emotional value and social value on purchase intentions is relatively significant, while the effects of quality value and price value are also relatively strong. Therefore, the four hypotheses of this study are supported.

Table 4. Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.595	.178		3.350	.001		
Emotional value	.244	.048	.227	5.128	.000	.682	1.466
Quality Value	.164	.047	.166	3.489	.001	.592	1.688
Social Value	.224	.047	.236	4.756	.000	.543	1.840

Price Value	.218	.048	.225	4.554	.000	.548	1.825
Dependent Variable: Consumer In-App Purchase Intention							

4 CONCLUSION

Through a survey and analysis of consumer perceived value and in app purchase intention in the Chinese mobile gaming market, it was found that perceived pleasure, playability, social interaction, and price have a significant positive impact on consumer in app purchase intention. Specifically, if players find the game interesting, playable, social, and reasonably priced, they are more likely to make in app purchases.

Game developers should emphasize social aspects and promote community interaction in mobile games, which helps to increase player engagement and in app purchase willingness. They should prioritize user experience and incorporate user centered design principles, while regularly evaluating and adjusting pricing strategies based on player feedback and market trends to maintain competitiveness and increase revenue.

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