

**A study on game consumer behavior****Phuong Nguyen<sup>a\*</sup> and Luong Nguyen<sup>b</sup>**<sup>a</sup>Ha Noi Foreign Trade University, Vietnam<sup>b</sup>Thanh Thinh Ltd, Vietnam**CHRONICLE***Article history:*

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*Keywords:**Video game**Consumer behavior**Behavior***ABSTRACT**

In the world, the video game industry has really exploded until about 2000, and since then has achieved great strides, becoming one of the leading forms of the entertainment industry, at least in terms of revenue. The main purpose of this paper is to examine the consumer behavior in the case of video games with three objectives: identify the factors affecting customer satisfaction for video games; analyze these factors to understand how they affect consumer behavior and propose some recommendations to improve the customer satisfaction for video games. Data was collected from 205 Vietnamese gamers addressing the variables of individual, psychological, cultural, and social factors. Regression analysis found that all four factors positively affect consumer behavior, in terms of customer satisfaction, especially cultural factors. The findings of this research analyzed the theoretical foundations of the theory of behavior, based on which investigated the study of consumer behavior of video game services of players in Vietnam by market research, analyze data, thereby helping businesses understand the psychological response, consumer behavior of customers, and can devise appropriate strategies.

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**1. Introduction**

Consumers, or customers, are a relatively familiar concept, but so far, there has not been a unified view of the definition and connotation of this concept. Depending on the field of study, researchers, economists, or policymakers have different views on the nature and function of consumption (Ajzen, 1991). However, due to the characteristics of the object and the purpose of the study, in this paper, the research team will use the definition in the Ordinance on Consumer Protection of the Standing Committee of the National Assembly (2010): "Consumers are people purchase and use goods and services for the purpose of consumption, activities of individuals, families, and organizations. According to Philip Kotler (2001), consumer behavior is defined: "A whole range of actions that take place throughout the process from the identification of the need to the purchase and after the purchase of the product". Consumer behavior is the way individuals make decisions about how they use their available resources (time, money, effort) for consumer products.

According to the American Marketing Association, 2012, consumer behavior is the interaction between the stimuli of the environment and human perception and behavior through which interaction, people change their lives. According to this definition, the concept of consumer behavior is viewed from the perspective of interaction, the interaction between people, and the external environment (Oliver, 1980, 1993; Oliver & DeSarbo, 1988; Rogers, 2003; Rust & Zahorik, 1992).

In a nutshell, all the definitions of consumer action focus on aspects of the process of identification, information acquisition, purchase reviews, consumer purchasing responses, and dialectical relationships. between that process and external factors, directly and indirectly, impacting it. According to Engel et al. (1995): Consumer behavior of products and services in the video game market is an activity directly related to the receipt, consumption, and elimination of products and services, cases,

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including decision processes that occur before or after these behaviors. In other words, it is the process, the psychological evolution of consumers to come to the decision to select or cancel the selection of video game products and services. According to Schiffman et al. (2006), consumer behavior is the dynamic interaction of factors affecting perceptions, behaviors, and the environment through which change their lives. According to Solomon et al. (2012), consumer behavior is the behavior that consumers exhibit in finding, buying, using, evaluating products and services that they expect will satisfy their personal needs. According to Lamb et al. (2000), consumer behavior is a process that describes how consumers make decisions about choosing and eliminating a type of product or service. Meanwhile, Schiffman et al. (2006) claim that consumer behavior is the behavior that consumers perform in the process of seeking to buy, use, evaluate, and eliminate arcade products and services. playing video games that a person expects to meet some of his or her needs. As above, this definition also mainly points to the process of selecting consumers' products and services in the market. Thus, there are many ways to define consumer behavior, but from any perspective, we can draw the main implication of the concept that the process is from awareness to buying behavior. governed by internal and external factors. Therefore, capturing the factors affecting purchasing behavior can help businesses have reasonable marketing strategies to improve business efficiency.

Due to the peculiarities of electronic games compared to some other types of entertainment products and services, consumer behavior in the video game market has the following outstanding characteristics, according to ABEI (2010):

Consumer behavior of products and services is applicable to individuals, within a group or an organization. With the characteristics of digital entertainment content, video game products are easily accessible, affecting customers who are a certain target group or an organization. Consumer behavior of video game products is greatly affected by exogenous factors (culture, society, community, family, etc.) and endogenous factors (perception, age, educational level, ...). mutual interaction, dialectic mutual. The behavior of consumers of video games has an influence on all aspects of society. Incorrect marketing strategies can have serious consequences for national health policy and social psychology. Consumer purchases are influenced by a variety of factors, which are divided into four main groups of factors: psychological factors, individual factors, social factors, and cultural factors.

## 2. Literature review

### 2.1 Psychological factors

Understanding consumer behavior is an almost important content of marketing research. P. Kotler (2001) brought out the psychological factors that can influence the buying behavior of consumers, such as awareness, acquisition, motivation, belief-attitude and personality (Hsu & Lu, 2007). Psychological factors have 4 elements: awareness, uptake, motivation, belief and attitude. Awareness is defined as 'a process through which individuals select, organize and interpret information to create a meaningful picture of the world around them.' Actual products affect consumer behavior, but consumer awareness of the product is even more influential. But before each situation, each consumer has a different perception. Perception not only depends on physical factors, but also on their relationships with their surroundings and internal conditions. People may have different perceptions of the same object due to three cognitive processes: Selective interest, selective distortion and selective memory, selective interest: Consumer interest in impressive and noticeable stimuli, selective distortion: Describes the tendency of consumers to attribute personal information to information and selective memorization: Consumers tend to retain only the information they deem necessary. Consumers, depending on the level of product knowledge and the perception of when they consume a product - satisfied or dissatisfied - behave differently. The process of using products, evaluating and receiving many different products makes consumers have experience in products. This acquisition represents changes in an individual's behavior from the experiences they have experienced. This acquisition process also makes consumers have different feelings in the process of receiving various stimuli and thereby giving different consumer reactions. Consumers can accumulate more positive or negative views from this process. Motivation is what motivates people to act. This is the power that drives all human behaviors. Motivation is the state of stimulation or stirring that drives a person's behavior to achieve a goal or a goal. According to Kotler and Keller (2007, 2009): "Motivation is a need that has become so imperative that people must act to satisfy it". At any given time, people have many needs. But not all needs have the same effect on creating the same engine. Most needs of psychological origin are not strong enough to motivate people to act on them immediately. A need becomes motivated when it reaches a level strong enough. Fulfilling the need will alleviate the feeling of stress. Product designers and salespeople need to find provocative ways to turn demand from the unrecognized state into proactive needs and maintain it to increase revenue opportunities. Consumers are not only interested in the features, performance but also the shape, size, weight, materials, colors ... of the product can cause certain associations and emotions, helping stimulate or inhibit shopping decisions. Faith expresses the specific meaning one has about a phenomenal object. Faith can come from the knowledge, the views, the actions experienced. Consumers, when they do not have faith in a product's characteristics or in the image of their brand, will easily refuse to choose that product or brand in their consumption decision. Attitude expresses people's relatively conscious assessments, feelings, and trends of action towards a subject, an idea. An attitude that expresses good or bad judgments based on a person's persistent perceptions, feelings and tendencies toward an audience or idea. People have attitudes towards almost everything: religion, politics, clothing, music, food, etc. Attitude leads them to decide whether or not they like an object, come to it or leave it. Beliefs and attitudes are formed in consumers in many different ways. Sometimes people have formed a positive attitude about a product before buying it. In particular, for products that require a

deliberate purchase decision, such as expensive products, the majority of consumers want to build and gather a positive belief and attitude towards the product before it is released. decide to buy. For some other products, consumer confidence and attitudes are formed during use. Hence based on above literature we hypothesize that:

**H<sub>1</sub>:** *Psychological factor influences consumer behavior significantly.*

### 2.2 Individual factors

Individual factors consist of 4 main elements: economic status, self-concept, lifestyle and personality. According to Kotler (2001), the choice of product is greatly influenced by the person's economic situation. A person's economic situation includes his or her affordable income (income, stability, and time arrangements), savings and assets (including the percentage of assets mobility), debt, ability to borrow, attitude to spending and saving. In short, economic status primarily impacts an individual's ability to pay for daily needs, thereby affecting their consumption behavior. According to Kotler and Keller (2006, 2007), each person has a different personality that affects his behavior. Here personality means the distinct psychological characteristics of a person leading to relatively consistent and lasting responses to the surrounding environment. Personality is often described by self-confidence, charisma, independence, harmony, respect, confidentiality, adaptability. Personality is a useful variable in analyzing consumer behavior because we can classify personality types and study the close correlation between certain personality types with product and brand choices. Studies have shown that consumers are always looking for products and services that fit the image of the individual ego. Thus, consumer behavior always tends to satisfy the needs expected by external factors. A person's lifestyle is the way in which his or her life in the world is expressed in his or her activities, interests, and opinions. People who come from a different cultural background, social class and same career may have completely different lifestyles. Lifestyle that perfectly portrays a person in relation to his environment. Consumer choice of goods represents their lifestyle. According to Kotler and Keller (2006, 2007): "Personality is the outstanding psychological characteristics of every human being, creating a stable and consistent behavior with the surrounding environment". A person's personality is related to personal characteristics - wholesales are exposed appropriately, especially when one characteristic manifests in the presence of other features. In our daily lives, our personalities are described by each other, but we ourselves are entities with very different personalities and personalities. Thus, personality is related to the notion of ourselves and the perceptions of others about us. Each person has a different personality (personality), can be confident, cautious, humble, self-centered, aggressive, tidy, easygoing, active, untidy, conservative, etc. These different personalities also create different shopping behaviors. Hence, it is hypothesized that:

**H<sub>2</sub>:** *Individual factor influences consumer behavior significantly.*

### 2.3 Social factors

Groups of social factors have many elements but there are 4 main elements: family, reference groups, trend, and role. According to Kotler (2001), the family of the buyer is always considered to be the factor that most strongly influences the behavior of the buyer. The family forms for individuals the orientations of religion, politics, economy, personal ambitions, personal values and sentiments; especially for families where parents live with their children, their influence can be fundamental. Family members can have a strong influence on buyer behavior. Family members are the most influential and important reference group. We can distinguish two types of families that affect buyer behavior: Family-oriented: Including that person's parents. This factor has a profound, long-term influence and individual orientation towards sustainable values of religion, politics, honor, self-esteem, etc. and private family, including spouses and children: Normally, in the family, the person who generates the main source of income will play a decisive role in spending on goods and services. Wives are traditionally housewives, so they play a major role in the family's shopping sector, especially for food, clothing, laundry, etc. However, this is changing, as more and more wives work, and husbands are more involved in family shopping. In the case of expensive products and services, the wife and husband often discuss together to pass a joint decision. According to Kotler and Keller (2006, 2007), consumer behavior is also influenced by social factors such as the reference group. These are "groups that directly or indirectly influence consumer behavior" such as: Familiar groups: These are groups in which individuals interact and interact with each other, such as parents, siblings, friends, colleagues, unions, unions and other social organizations, admiration group: A group that an individual is also affected with, though he is not a member of, but has a desire to be in, disagreement group: A group whose behavior and conduct are not accepted by individuals. Individuals often take actions to boycott activities and behaviors of these disadvantaged group members, including activities and shopping behaviors. The buying trend has a strong impact on each individual. Every individual has a tendency to buy trendy goods. Trend is a change in the market that makes new trends appear. In the era of thriving Internet, customers are the people who catch these trends in the fastest way. That will change consumer tastes. They will have different needs, behaviors, and the products they choose will change with the new trend. In his life, one person participates in many groups - families, clubs, organizations. The position of that person in each group can be determined based on their role and status. Each person can play many different roles in different groups: the role is the decision maker, influencer, or conductor of consumer behavior. Each of these roles includes the activities that the person must conduct and influence his shopping behavior. Each role is tied to a certain position. People choose products that reflect their position and role in society, especially the roles and positions that, according to them, are the most important. However, the status symbol may vary according to social strata and geographic region. Hence, we hypothesize that:

**H<sub>3</sub>:** *Social factor influences consumer behavior significantly.*

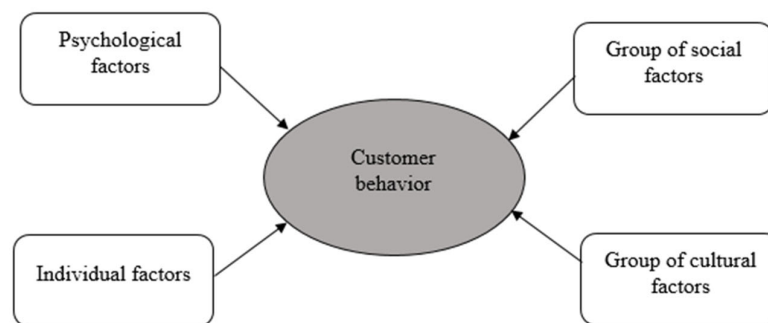
## 2.4 Cultural factors

Traditions, integration and cultural transformation and values are 3 main elements that affect cultural factors (Fečíková, 2004). “Culture should be referred to as a collection of spiritual characteristics, material, intellectual and emotional of a society or a group of people in society and it contains, in addition to literature and art, the way of life, the way of living together, the traditional value system and faith”. Culture is a system of values, beliefs, traditions, and standards formed and attached to a certain society, a regime, a religion, or a nation, handed down from generation to generation. Culture is the basic factor that determines people's desire and behavior. The basics of values, senses, preferences, behaviors, and behaviors we observe through shopping all contain distinct cultural identities. Sometimes, a cultural identity is also influenced by the effects of other cultural movements. This transformation process also creates new demands, new consumer behaviors. There are new cultural trends that are positive, but there are also negative ones for ethical and social issues. A person's shopping behavior will be influenced by the characteristics of his or her cultural branch. They will affect their eating habits, their clothing choices, their leisure breaks, and their ambition for advancement. Hence, we hypothesize that:

**H4:** *Cultural factor influences consumer behavior significantly.*

### Proposed Theoretical Model

Fig. 1 below demonstrates the proposed model of this paper.



**Fig. 1.** Proposed model of this paper

## 3. Methodology

### 3.1 Research Setting and Participants

To empirically test the study hypotheses, data was collected from gamers who play League of Legends, Genshin Impact, Player Unknown's Battlegrounds, CS:GO, Dota2. A convenient sampling technique was used to collect the data from different gamers playing different levels in the mentioned games. Consent letters were emailed to the concerned heads of the organization and were asked if they are willing to take part in the survey. After getting a positive response from them, data was collected. Total of hundred questionnaires were distributed in each of the five organizations. The survey had received 221 questionnaire papers mostly from universities, colleges and high school students. However, 205/221 people answered that they play games. So, 205 questionnaire papers are valid. Male were 106 (out of 205) representing 51.7%, while 99 (out of 205) were females representing 48.3%. The survey shows that most people in the survey are people living in the urban area of Hanoi, their age ranges from 18 to 34. Of which people aged 18 to 23 years old accounted for 91.2%; from 24 to 29 years old accounted for 5.3% and from 29 to 34 accounted for 3.5%. Thus, the group with the highest proportion is from 18 to 23.

### 3.2 Measures

The model of the study consisted of four factors as independent variables and customer satisfaction as dependent variables. Psychological factors were measured with four items using a five-point Likert scale developed. Few of the questions asked were: "Game is an easy way to entertain", "I choose a game because of familiar publishers", "I play games instead of other kinds of entertainment because it makes me relieve", "I play games because it can bring me knowledge from experiences". Individual factors were measured with four items using a five-point Likert scale developed by Jehn et al. (1999). Few of the questions asked were: "I choose a game because it has low cost", "I want to express myself", "Game is my lifestyle", "I want to communicate with others". Social factors were measured with four items using a five-point Likert scale developed by Jehn et al. (1999). Few of the questions asked were: "I play a game because my friends recommended me", "I play games because all people around me do it", "I play a game because my brother/sister do it", "I play a game because it is a trend". Cultural factors were measured with three items using a five-point Likert scale developed by Jehn et al. (1999). Few of the questions

asked were: “ I play a game because I like its content”, “I would love to play a game, if it's close and similar to our culture”, “I can play a game thanks to integration and cultural transformation”. Consumer behavior was measured with three items using a five-point Likert scale developed by Jehn et al. (1999). Few of the questions asked were: “I will continue playing games in a long time”, “I feel satisfied after playing games”, “I like playing games”

**3.3 Analysis**

Before testing the study hypotheses, preliminary analysis including multi-collinearity, mean, correlation analysis and reliability analysis were performed. Variance Inflation Factor (VIF) and tolerance statistics were used to check multicollinearity among the study variables. To check the causal relationship between the variables, the Baron and Kenny (1986) approach was used. According to Bowerman and O’Connell (1990), the assumption of multicollinearity is not fulfilled if the VIF average value is considerably bigger than 10. Multicollinearity is also checked by tolerance statistics which states that if tolerance statistics is below 0.2, then multicollinearity does exist (Menard 1995). The VIF values of the proposed model were well below 10 and the tolerance value was 2.83 and hence no multicollinearity problem observed in the data. Table 1 shows that there is a significant negative correlation between value diversity and team performance (-0.61\*\*, p<0.01), significant positive correlation between value diversity and relationship conflict (0.71\*\*, p<0.01), significant negative relationship between relationship conflict and team performance (-0.50\*, p<0.05). The table also shows a significant positive correlation of team performance with OCB which is 0.66\*\* as well as a significant positive correlation between team performance and LMX (0.67\*\*\*, p<0.001). Table 1 also shows the reliability analysis of the study measures such that Cronbach alpha for all the measures are well above the minimum threshold level. The reliability coefficient for psychological factors (PF), individual factors (IF), group of social factors (SF) and group of cultural factors (CF) are shown in parenthesis and remained 0.75, 0.78, 0.72, and 0.724 respectively.

**Table 1**  
Internal consistency and Item - Total Correlation Coefficients

Dimension	Factor	Corrected item - Total Correlation	Cronbach's alpha
Psychological factors	Awareness	0.586	0.75
	Belief	0.559	
	Motivation	0.438	
	Uptake	0.603	
Individual factors	Economic status	0.584	0.78
	Self-concept	0.616	
	Lifestyle	0.599	
	Personality	0.542	
Group of social factors	Reference groups	0.384	0.72
	Role	0.629	
	Family	0.544	
	Trend	0.498	
Group of cultural factors	Values	0.546	0.724
	Traditions	0.541	
	Integration and cultural transformation	0.551	

Source: Survey data

The dependent variable “consumer behavior” is evaluated by 3 aspects coded CB1, CB2 and CB3. The reliability test shows that Cronbach’s Alpha is equal to 0.717 which is bigger than 0.6. The item-total correlation coefficients are almost bigger than 0.3. When deleting any items in the factor, Cronbach’s Alpha decreases; so, the item deleting reduces the reliability of the factor. Hence, the factor “consumer behavior” measured by 3 items is reliable.

**Table 2**  
Reliability test of factor “Consumer behavior”

Dimension	Factor	Corrected item - Total Correlation	Cronbach's alpha
Consumer behavior	I will continue playing games in a long time	0.539	0.717
	I feel satisfied after playing games	0.552	
	I like playing games	0.524	

Source: Survey data

**3.3 Regression analysis**

To define, measure and assess the impact of 4 factors on consumer behavior, multiple-linear regression is employed via Enter methods between 4 factors in the model.

**Table 3**  
Regression analysis with Enter method

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.751 <sup>a</sup>	.564	.555	.4517	1.749

a. Predictors: (Constant), CF, IF, SF, PF  
b. Dependent Variable: CB

Durbin-Watson equals to 1.749, in (1.5;2.5) range, therefore there is no superlative sequence correlation occurs. According to the regression results, the regression results are obtained in Table 3, this result shows that coefficient of linear correlation  $R^2 = 0.564$  which means that the independent variables in the model explain 56.4% of the variance in the dependent variable.

**Table 4**  
ANOVA of regression analysis

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	52.990	4	13.247	64.920	.000 <sup>b</sup>
	Residual	41.016	201	.204		
	Total	94.005	205			

a. Dependent Variable: CB

b. Predictors: (Constant), CF, IF, SF, PF

To test the fit of the overall regression model, the F value (p-value < 0.01) suggests that 4 independent variables used in the model are suitable and partly explain Consumer behavior. Sig. equals to .000 < 0.05, so multiple linear regression models are suitable for the data set and can be used.

**Table 5**  
Coefficients in the regression analysis

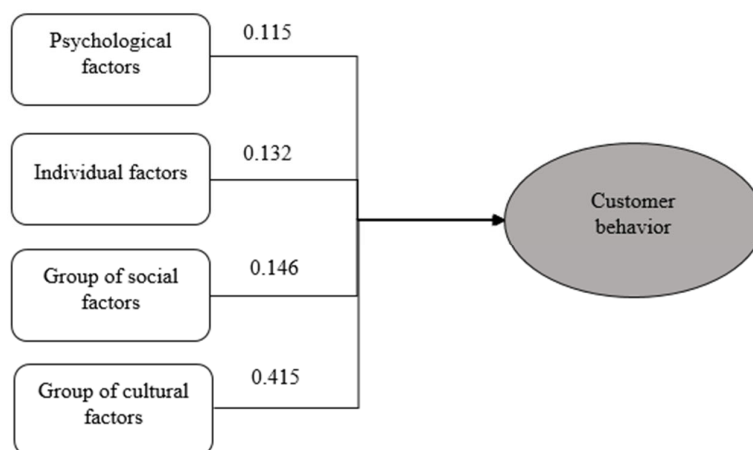
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.905	.189		4.783	.000		
	PF	.115	.056	.125	2.069	.040	.593	1.687
	IF	.132	.049	.153	2.682	.008	.669	1.496
	SF	.146	.050	.173	2.907	.004	.612	1.635
	CF	.415	.042	.512	9.780	.000	.793	1.260

a. Dependent Variable: CB

In the coefficients table, tolerance and VIF value are for collinearity tests. There is no collinearity in this model because all Tolerance values are higher than 0.1 and VIF values lower than 10. According to the regression results in the table above, in the 4 independent variables of the research model, all have a positive impact on the dependent variable at the confidence level of 95% and 99%. The regression equation is stated below:

$$CB = 0.905 + 0.115PF + 0.132IF + 0.146SF + 0.415CF$$

Through the coefficients table of regression results, the Standardized Beta Coefficients also shows the magnitude of the effect of each independent variable on the dependent variable. Particularly, CF (group of cultural factors) has the highest impact on consumer behavior and PF (psychological factors) has the lowest one. Research model after testing by the linear regression method is displayed in Fig. 2.



**Fig. 2.** Research Hypotheses Testing results

#### 4. Discussion

As already predominantly argued in literature, psychological factors positively affect customer behavior (e.g., Philip Kotler, 2001). The findings of this study further confirm this positive relationship between psychological and individual factors and customer behavior. The results of this study therefore substantiate findings of earlier studies. Hence, building an appropriate, effective and long-term marketing strategy is necessary. According to research, the elements of the game that appeal to customers are the plot, gameplay, and server quality. These factors also need to be arranged creatively to create strengths in the advantages of the business. For technology, the publisher should find games with high-quality graphics, lively music, logical storylines, and a friendly interface. For the customer service element, the publisher should focus on support, guide customers to play, technical support when having problems, and increase the quality of Internet connection and server quality for online games. Cultural factors, which is the most important factor, needs much attention from both producers and publishers. Therefore, creating unique hallmarks for the game is reasonable. A game with content, unique gameplay always has certain advantages. As a typical case, VTC's Audition was extremely successful because it was the first casual game released in Vietnam, when role-playing MMOs still dominated the market. Besides, Raid, even though it was engulfed in hacking, still enjoyed a lot of players, simply because, at that time, it was the only MMOFPS in our country. Gunny Online is a webgame but has higher revenue than Kiem The, because it is the most complete Gunbound clones game. Through the examples above, perhaps, we also somewhat see the attraction of new games. Unique because it possesses graphics and gameplay (gameplay) completely different from the remaining competitors and of course, it easily creates excitement, into the hobby of "seeking new things" of gamers. Most gamers highly appreciate games that have new and interesting features, especially in the context of too many similar or similar games today. In order to create an effective impression, businesses that produce or publish games need to have reasonable and proper strategies, carefully calculated. As for social factors, producers and publishers should focus on community activities. Organize community events regularly, such as new game launches, music events, celebrity exchanges, or friendly tournaments for gamers to interact with each other. and with the publisher. These activities have a great impact on creating excitement and impression on the publisher for gamers, giving them a sense of care and honor, thereby arousing their loyalty. Building community organizations for players in the form of Gamers Clubs or Associations is a way for publishers to show their professionalism, as well as to express their responsibility to the players as well as to the community. These organizations will work as a player to protect the rights of players, but also play a role in managing the behavior of gamers in general, contributing to changing the consciousness of a generation of gamers. Businesses can collaborate by providing financial support to operating organizations, but it will also be a lot easier to reach players. Currently, video games are still being condemned for their negative sides. In addition to specific issues such as addictive nature or violent elements in the game, the Vietnamese gaming community also receives unfriendly views of society about the unhealthy gaming environment or literature. gaming chemistry is low. The lack of gaming culture in our country is not only an internal matter of the gaming industry but has caused the pain to exist beyond a type of entertainment. Also because of cultural issues, Vietnamese gamers when integrating with the world are also not welcome, even completely blocked. Another problem that also causes a lot of frustration for the gaming community is the phenomenon of cheating such as using hacking tools, taking advantage of technical errors, ... This phenomenon is extremely popular in the Vietnamese gaming industry, and makes a bad impression on every player. Still, the current anti-hacking is extremely difficult, partly because the publishers have not been autonomous in technology but still have to depend on foreign countries. However, there are many cases of "doing" but faltering due to fear of losing customers, making this phenomenon even more powerful. The task of handling the bad sectors in the virtual world belongs to both gamers and publishers. However, with specialized technical tools at hand, it is the businesses that need to show their willingness to boycott bad players, hackers, bots. In order to build a strong game industry, creating a healthy game environment is an essential task for businesses. Game producers and publishers need to play a bigger role in managing, regulating, and having powerful tools for cultural issues as well as ensuring fairness in the game.

#### 5. Conclusion

All four hypotheses in this research are supported. This research assessed the micro and macro factors affecting the production and distribution, thereby giving an overview on the current production and distribution of video games. As for cultural factors, producers can manage efficient and effective content of games to achieve success, at least in terms of revenue. For social and individual factors, building a community is a way for publishers to show their professionalism, as well as to express their responsibility to the players. Psychology is also important if producers and publishers create an appropriate, effective and long-term marketing strategy.

This research has shown the importance of psychological, individual, social and cultural factors that can affect consumer behavior. Thus, coordinating and collaborating four factors is crucial for producers and publishers to survive as competition is getting more arduous and challenging. Managers must be able to get their competitive advantages to sustain in this dynamic era.

#### 6. Limitations and future research directions

Due to the limited size and research ability, the author was unable to mention many aspects related to the field of video games, such as the production and business situation of enterprises in this field in Vietnam, investigating the positive and negative effects of video games on Vietnamese consumers, the issue of application of electronic games in other fields, or not having

consulted with leading experts' sector, sector decision-makers. Research into the video game industry in Vietnam is still a new area of research, and the author hopes to have more in-depth, larger-scale research and address more issues in this field.

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