

# What Drives Players to Play Murder Mystery Game? An Empirical Study from Motivation Theory Perspective

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## Abstract

In 2020, the epidemic swept the whole world. When all kinds of shops close one after another, the Murder Mystery shops increase rather than decrease. To our knowledge, there is no research examining factors of players' playing intention of Murder Mystery. Most prior studies explored what is Murder Mystery, the steps of Murder Mystery, and the appropriate players in one Murder Mystery. In order to maximize the benefits of merchants in the post-pandemic, we investigated the influencing factors of players' playing intention from motivation theory perspective. As little existing empirical literature under Murder Mystery context, this study reviewed research on online games, given the common characteristics of online games and Murder Mystery. The current study identified four antecedents, perceived enjoyment, escape, fantasy, and social affiliation. By collecting questionnaires and analyzing data, this paper found that perceived enjoyment, escape and fantasy had a significant impact on playing intention, among which perceived enjoyment had the greatest impact. This paper verified that the motivation theory is still effective in explaining reasons to choose Murder Mystery. This study also provided some suggestions to Murder Mystery merchants to maximize their

profit, attract more potential players, and be more competitive.

## Keywords

Murder Mystery; Playing intention; Motivation theory; Intrinsic motivation; Social motivation; Empirical study

## Introduction

A Murder Mystery is an experiential inference game, players can either play in the Murder Mystery store offline or through online APP. Murder Mystery usually lets players choose a role in the script. Through reading the script, players will know what is happening. During the discussion, players will exchange their information and find the murder. At last, they will vote for the murder. This game dates back to the popular 1930s party game - Jury Box in the United States, and "Murder Mystery" game in England during World War II. Except for the influence of "Jury Box" or "Murder Mystery", the popularity of the Murder Mystery game in China is also highly related to the network variety show "Star Detective", which is a star role playing and inference game created by Mango TV. In China, the game was first popular in Guiyang, 2017. The Murder Mystery market started to boost around 2020 in other cities. By

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2020, the scale of offline stores has reached to 30,000 (Xiang, 2021).

This study will focus on the rapid growth of Chinese Murder Mystery offline, including desktop scripts and live action scripts. The former allows players to sit in one room, read the script, and search for clues from the script's descriptions. The latter means merchants will set up the whole crime scene and hide the real clues in it. In live action games, players can wear clothes related to the script to make people feel more real. In addition, some clues in the live action room are hidden very well, which are not easy to be found by players. The cost of a live action Murder Mystery is higher than a desktop one. The cost of a live action Murder Mystery is also higher than a desktop one. In Beijing, the desktop game costs around ¥130, but the live action ones cost ¥250 on average.

The rapid development of Murder Mystery has received researchers' attention, there are more and more researchers began to have research on Murder Mystery. For example, Xiong et al. (2020) adopted game refinement theory to analyze Murder Mystery Game setting to balance the total players of the game, as well as to create a comfortable setting for players. Chen (2019) analyzed the characteristics of Murder Mystery from three dimensions perspectives: narrative perspective, interactive carnival and time battlefield. Most prior research focused on describing the process of Murder Mystery Game. However, few studies have examined the factors influencing players' intention to play Murder Mystery. This is the main research gap in the Murder Mystery research. To fill this research gap, the purpose of this study is to examine the influencing factors of playing intention. This study attempts to answer the question of the reasons for the rise of desktop Murder Mystery, as well as to discuss its future development in Beijing. This article will adopt the method of quantitative research to study the factors that affect players' willingness to play games. More specifically, data will be collected through online questionnaire, and data will be analyzed using SPSS. Such study can not only provide new insights to relevant researchers, and

enhance their understanding on which factors drive players' intention to engage in Murder Mystery, but also can provide effective strategies for merchants to attract more potential players.

## Literature Review

### Prior Research on Murder Mystery

As Murder Mystery becomes popular among young generations, it has received researchers' attention gradually. Several researches have been conducted to better understand Murder Mystery. For example, Fang (2019) indicated that Murder Mystery fans prefer Murder Mystery Game, and these players have contributed to the Murder Mystery market and generated several professions, such as screenwriter and DM. Xiang (2020) presented three aspects: scripts can bring people into different lives, discussing human nature, family love, love, friendship, and so on; Murder Mystery Game's store develops diversely, there are a lot of styles; with the solution of related problems, the future of the Murder Mystery Game industry can be expected. In addition, Xiong et al. (2020) conducted research focusing on Murder Mystery Game. The study holds that Murder Mystery Game needs several players and costs a few hours, the game will become boring if the number of players is too large or too small. Therefore, the study used game optimization theory to analyze Murder Mystery Game settings to balance the total number of players.

Prior research has enhanced my understanding of what is Murder Mystery and the processes of Murder Mystery. However, to the best of our knowledge, there is no existing study examining factors influencing players' playing intention. Research on examining factors of players' playing intention can further help Murder Mystery merchants to implement better management strategies, and maximize profits under COVID-19 pandemic.

There is empirical literature about Murder Mystery game, therefore, it is necessary to review similar context literature. Online games have something in common with Murder Mystery. For example, they both have to interact

with other players, and they both meet players' entertainment needs and pleasure needs. Thus, in the next section, this study will review online game related research to identify factors of Murder Mystery playing intention.

### **Research on Online Games**

A number of theories have been applied to examine player's online games playing intention, such as Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975), Theory of Planned Behavior (TPB) (Ajzen, 1991), and Technology Acceptance Model (TAM) (Davis, 1989). TPB is derived from TRA, which is mainly used to predict and understand human behaviors. TRA assumes that individuals' decision on whether to behave or not is entirely voluntary, and TRA ignores the ethical and moral decisions made by core users. According to TRA model, the specific behavior of an individual is influenced by Behavioral Intention, which depends on the Attitude and Subjective Norm of the individual. At the same time, the research pointed out that attitudes and subjective norms also influence each other. In 1991, Ajzen added Perceived Behavioral Control into the TRA, and generated TPB theory. Attitude, Subjective Norm and Perceived Behavioral Control are the main factors of TPB. TPB mainly argues that the process of behavior has three patterns: Behavioral Intention of the individual; Behavioral Intention is determined by the Attitude, Subjective Norms, and Cognitive Behavioral Control, or some of them; Behavioral Attitudes, Behavioral Subjective Norms and Cognitive Behavioral Control are affected by exogenous variables. TAM believes that system use is determined by Behavioral Intention, which is jointly determined by attitude toward using, and Perceived Usefulness. TAM puts forward two main determinants: one is Perceived Usefulness, which reflects how much a person perceives that using a specific system will improve his work performance; another is Perceived Ease of Use, which reflects how easily a person perceives it is to use a specific system.

Many researchers have adopted TPB and TAM to understand online games. For example, Lee (2009) investigated factors impacting people's

intention to play online games by extending TPB theory. By analyzing 458 valid data, they found that attitude, subjective norm and perceived behavioral control all had a positive and significant influence on people's intentions. Additionally, flow experience and perceived enjoyment were important factors impacting people's intentions. Ha (2007) expanded TAM to include mood variables in the research model and measured the moderating effects of gender, age, and prior experience on game adoption. The findings suggested that the effect of perceived happiness was very important, but usefulness did not affect individuals' attitudes. In addition, age is a key moderator of game acceptance.

However, these theories are mainly developed to understand utilitarian information system (IS), such as computers, mobile payments, or technology products that can enhance people's job performance. As Hsu and Lu (2004) stated, factors such as perceived usefulness and ease of use might not reflect the motives of game players. Alternatively, this study reviews motivation theory under online games context and adopts motivational factors to explain players' intention to play Murder Mystery.

### **Motivation Theory**

Motivation theory aims to understand what drives a person to work towards a particular goal or outcome. It has been widely used to examine players' intentions to play online games. Motivation theory holds that players' behavior is attributed to various motives, such as ease of use, and usefulness (Hsu and Lu, 2004), enjoyment, and variety seeking (Rohm and Swaminathan, 2004), social value (Sweeney and Soutar, 2001). Though numerous branches of motivation theory, at its simplest, it boils down to three factors, extrinsic motivations, intrinsic motivations, and social motivations. Extrinsic motivation refers to completing a task or exhibiting a behavior because of external factors, such as perceived usefulness, ease of use, and relative advantages (Venkatesh et al., 2003). Intrinsic motivation is the process by which a user performs an activity for no apparent reason -- including fun, enjoyment, and flow (Igarria et al., 1996, 1994; Moon and Kim, 2001). Social motivation

includes social belonging, social pressure, social self-concept and social interaction. However, prior researchers indicated that the extrinsic motivations might not explain players' motives significantly (Hsu and Lu, 2004), because online games are particularly played for pleasure and entertainment (Griffiths et al., 2004). Therefore, this study mainly considers factors influencing intention to play Murder Mystery from intrinsic motivation and social motivation perspectives.

### *Intrinsic Motivations*

Previous online games research has identified several intrinsic motivations as predictors of intention to play online games. The most salient intrinsic motivation is perceived enjoyment. Perceived enjoyment is the degree to which playing online games is perceived to be fun and enjoyable (Ghani and Deshpande, 1994; Moon and Kim, 2001). Perceived enjoyment is the main intrinsic motivation for individuals to initially accept and continue to use hedonic IS such as online games. Merhi (2016) studied the factors of behavioral intention of online games, and the research results showed that enjoyment was the key determinant. Also, Wu and Liu (2007) found that enjoyment was a strong predictor of behavioral intention to play online games.

Murder Mystery is full of lies and mysteries. If players want to win, they have to come up with a decent reason. It is the lie that makes players more willing to engage, because lies are a fundamental element of human nature, and have evolutionary meaning. As early as in ancient times, when human beings had extremely limited survival resources, the natural environment and social group environment were extremely cruel, and it seemed that they had to use the skill of lying to survive. Primatologist Richard Byrne of St Andrew's University in the UK has found that certain monkeys and orangutans are perfectly capable of deceiving each other for their own benefit. For example, some monkeys pretend to be uninterested in food to mislead other monkeys so that they can steal it off guard. Murder Mystery taps into the underlying dynamics of human nature, allowing the players to experience the fun of lying in a

safe environment. Based on the above discussions, this study hypothesizes that:

**H1:** Perceived enjoyment positively influences Murder Mystery playing intention.

Escapism is also considered as an important intrinsic motivation under online games context. To some extent, playing online games is considered a way to escape boredom and escape from everyday life. Escapism refers to avoiding unpleasant realities or diverting one's attention from problems and pressures (Bloch et al., 1994). Some people play online games to experience the sense of achievement of winning games, which cannot be gained in real life. Escapism is not only positively associated with the continued playing intention of online games, but also is a strong predictor for game playing among individuals. The significant influence of escapism on playing intention has been confirmed by several researchers. For instance, Yee (2006) attempted to understand players' motivations for playing online games and found that escapism exerted the largest impact. Koo (2009) studied the influence of five experiential motivations: concentration, enjoyment, avoidance, cognitive curiosity, and social belonging on online games. The results showed that the most important motivation for gamers was escapism.

People are under great pressure in real life. Students have to bear the pressure of study, and those who have just started to work have to bear the pressure from social relationships, work, financial and other aspects. People want to escape from pressure. Murder Mystery can gratify such escapism needs. Attacks, accusations, jokes, flirtation, and disclosure are all acceptable under the cover of Murder Mystery. In reality, however, people's emotional breakdowns cost them something. In the time and space of the Murder Mystery Game, it is like a parallel universe where everyone has a happy ending. Even if someone becomes the most vicious twisted killer, he or she can safely return to reality at the last moment. Murder Mystery is a novel experience, allowing people to experience a different life in another world, but

also giving them a temporary respite from all kinds of reality. Therefore, this study hypothesis that:

**H2:** Escapism positively influence Murder Mystery playing intention.

In addition, prior researchers also emphasize the importance of fantasy in satisfying a player's intrinsic needs (Hirschman and Holbrook, 1982; Li et al., 2015). In social network game (SNG) games, fantasy is something people want to do but cannot do in real life, as well as something people imagine in their heads (Hirschman and Holbrook, 1982). Online games allow players to do things they normally could not be able to do, such as driving racing cars, driving airplanes, being pop stars, decorating an avatar, etc. Fantasy can satisfy one's hedonic needs and gain hedonic satisfaction through the use of hedonic products and services, such as online games. Some researchers have confirmed the significant effect of fantasy on game playing intention. According to Chou and Tsai (2007), fantasy has been emphasized as an important reason why online gamers initially play online games again and again. Li et al. (2015) established a model with three types of satisfaction: hedonic satisfaction; social satisfaction; and utilitarian satisfaction. The study found that fantasy and socializing were the most important two factors.

In the Murder Mystery Games, gamers can play the role they want to play, they can lie for their own purpose without being condemned by others, and they can accomplish some inconceivable things that cannot be done in real life. A lot of people fantasize about being a new person with new identity. In the Murder Mystery, this fantasy comes true. Thus, this paper presents the following hypothesis:

**H3:** Fantasy positively influence Murder Mystery playing intention.

#### ***Social Motivation***

One of the most salient factors of social motivation is social affiliation (Koo, 2009). Social affiliation refers to the fun that comes from playing online games while socializing with other online game players (Bloch et al.,

1994; Griffiths et al., 2004; Hsu and Lu, 2007). Online games can enhance interpersonal connections, increase social capital, make network subjects freer and more equal, and realize inter-circle interpersonal communication (Wang, 2021). According to Wang and Wang (2008), social interaction is an essential feature of online games today because online game players must cooperate with other players if they want to achieve different goals, such as network building, rewards, and progress in the game. Online gamers can feel connected to others or accepted by others while playing online games. Koo et al. (2007) studied five experiential motivations, such as attentiveness, perceived enjoyment, avoidance, cognitive curiosity, and social belonging. The results showed that social belonging is the most influential factor. Koo (2009) studied predictors of online game playing intention. The results showed that escapism exerted the most impact on playing intention, followed by social belonging.

Murder Mystery provides a new place for young people who "live in" the Internet to socialize offline. Nowadays, the way of social affiliation among young people is relatively simple. They usually have meals, sing songs, and watch movies. When they meet, they often hold their mobile phones and do not communicate with each other. Murder Mystery provides everyone the opportunity to immerse themselves in it and communicate face to face. Thus:

**H4:** Social affiliation positively influence Murder Mystery playing intention.

Drawing on motivation theory and prior research related to online games, this study proposes a research model which considers the factors of hedonic motivation and social motivation. Three intrinsic motivational factors, considered important consistently by prior studies, are identified as factors of intention to play Murder Mystery in this study: perceived enjoyment, escapism, and fantasy. Additionally, one social motivational factor - social affiliation is identified as an antecedent to play Murder Mystery. Table 1 presents the operational

definitions of each variable. Figure 1 displays the research model.

Table 1. Operational definition of main variables

Variables	Operational definition	References
Perceived enjoyment	The degree to which the activity using a particular system is itself considered enjoyable.	Ghani and Deshpande (1994); Moon and Kim (2001)
Escapism	Avoiding unpleasant realities or diverting one's attention from problems and pressures.	Holsapple and Wu (2007)
Fantasy	The degree of integration of imaginary events or sequences of mental images that represent the needs of all psychological and realistic elements.	Hirschman and Holbrook (1982)
Social affiliation	The fun that comes from playing Murder Mystery while socializing with other Murder Mystery players.	Bloch et al. (1994); Griffiths et al. (2004); Hsu and Lu (2007)
Playing intention	The tendency of players to play Murder Mystery.	Dong et al. (2008)

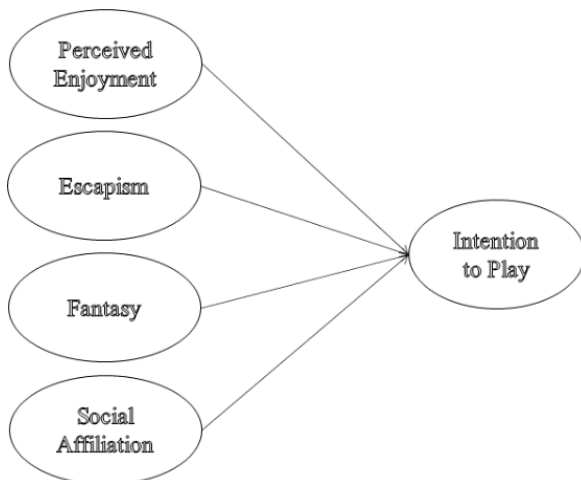


Figure 1. Research model

## Method

### Measurement Items

All the measurements were adapted and modified from prior studies to fit this study. Perceived enjoyment was measured with 3 items that were adapted from Merhi (2016), Wu and Liu (2007). 3 items that were recomposed from Yee (2006) and Koo (2009) were used to measure escapism. Fantasy was measured by 3

items reorganized from Li et al. (2015) and Chou and Tsai (2007). Social affiliation was measured with 3 items that were recomposed from Koo et al. (2007) and Koo (2009). Playing intention is measured by 3 items which were reorganized by Yee (2006) and Koo (2009). Finally, 15 items were adopted using a five-point Likert scale, with 1 representing “Strongly disagree” and 5 representing “Strongly agree”.

### Data Collection and Descriptive Analysis

The analysis unit of this study was people who have experience playing Murder Mystery. The questionnaire was established through the Wenjuanxing platform, which is a professional online questionnaire survey, examination, evaluation, and voting platform. The Wenjuanxing requires real-name authentication, and an IP address can be filled in a maximum of one time, which effectively prevents the existence of data brushing. An online questionnaire was distributed by Wechat, SMS and QQ for 3weeks. 174 questionnaires were collected, 17 data were found invalid, resulting 157 valid data. Of the 17 invalid questionnaires, 13 had no experience playing Murder Mystery, and another 4 respondents gave the same answers to the questions. Among them, 35.7% were male and 64.3% were female. 42.0% of the respondents had a high school education or below, 24.8% had an associate's degree, 23.6% had a bachelor's degree and 9.6% had a master's degree or above. 84.1% of respondents are 35 years old and below, and most of them are 15-18 years old, accounting for 36.9%. 35 percent of respondents earn less than 3,000 yuan a month. Those earning between 3,001 and 5,000 a month accounted for 19.1 percent. The number of people between 5001-8000 per month accounted for 16.6%, and those between 8000 and 10000 accounted for 10.8%. 9.6 percent earn between 1,001 and 15,000 a month. The remaining 8.9% earn more than 15,000 a month.

Table 2. Descriptive statistics of respondents

Respondents	Category	Count	%
Gender	Male	56	35.7
	Female	101	64.3
Education background	High school degree or below	66	42.0
	Junior college	39	24.8
	Undergraduate college	37	23.6
	Graduate degree or above	15	9.6
Age	Lower than 15	4	2.5
	15-18	54	34.4
	19-24	44	28
	24-35	30	19.1
	Above 35	25	15.9
Income level	Below ¥3000	55	35.0
	¥3001-¥5000	30	19.1
	¥5001-¥8000	26	16.6
	¥8001-¥10000	17	10.8
	¥10000-¥15000	15	9.6
	Above ¥15000	14	8.9

## Results

### Reliability and Validity Analysis

We tested the reliability, convergence validity and discriminant validity of the data. Cronbach's alpha is widely used to assess the reliability of the data, as well as the internal consistency of the data. Cronbach's alpha should satisfy the threshold 0.7, the greater of Cronbach's alpha, the better of the internal consistency. As shown in Table 3, all Cronbach's alpha coefficients were greater than 0.70, indicating reliable data and good internal consistency. Convergence

validity can be assessed using two methods: compound reliability (C.R.) and mean variance extraction (AVE). The value of C.R. should exceed 0.70, and AVE estimates should exceed 0.50 (Hair et al., 2010). As shown in Table 3, C.R. of the constructs is higher than 0.7, all AVE of the variables is greater than 0.5, demonstrating a good convergent validity.

Finally, discriminant validity can be judged by comparing the correlation with the square root of AVEs of each construct. According to Anderson and Gerbing (1988), the square root of AVE of potential variables should be greater than the correlation between each construct. In other words, each square root of AVE value should be greater than the correlation in its rows and columns. As shown in Table 4, all roots of AVEs are larger than the correlation between each construct, indicating good discriminant validity.

Table 3. Reliability and validity analysis

Variables	Measurement items	Factors loadings	Cronbach's alpha ( $\alpha$ )	AVE	C.R.
Perceived enjoyment	PE1	0.899	0.873	0.798	0.922
	PE2	0.894			
	PE3	0.887			
Escapism	ES1	0.890	0.833	0.955	0.902
	ES2	0.861			
	ES3	0.855			
Fantasy	FT1	0.863	0.820	0.736	0.893
	FT2	0.860			
	FT3	0.851			
Social affiliation	SA1	0.896	0.834	0.754	0.902
	SA2	0.895			
	SA3	0.811			
Playing intention	PI1	0.904	0.868	0.791	0.919
	PI2	0.884			
	PI3	0.880			

Table 4. Discriminant validity test

	PE	ES	FT	SA	PI
PE	<b>0.893</b>				
ES	0.596	<b>0.977</b>			
FT	0.623	0.773	<b>0.858</b>		
SA	0.846	0.678	0.701	<b>0.868</b>	
PI	0.792	0.748	0.699	0.782	<b>0.959</b>

Note: PE = Perceived enjoyment, ES = Escapism, FT = Fantasy, SA = Social affiliation, PI = Playing intention.

### Hypotheses Testing and Research Findings

This study examined factors influencing players' Murder Mystery playing intention. Given the lack of empirical research, this study identified main factors by reviewing studies on online games. By applying motivation theory, this study proposed four hypotheses. Hypotheses were tested through 157 valid data. Linear regression was adopted to test the relationships between main factors with playing intention. Linear regression is a regression analysis that models the relationship between one or more independent and dependent variables using a least-square function called a linear regression equation. The statistical properties of the estimates produced by linear regression are easier to determine. According to Table 5, three of the four hypotheses were supported. Perceived enjoyment positively and significantly influence playing intention ( $\beta = 0.455, p < 0.001$ ), supporting H1. This result is consistent with Merhi (2016) who showed that people choose to play online games for enjoyment. In other words, it is important for Murder Mystery industry players to experience the joy of Murder Mystery. Escapism also positively and significantly influence playing intention ( $\beta = 0.281, p < 0.001$ ), supporting H2. It is consistent with Yee (2006) who found that avoidance was the biggest influencing factor. Compared with perceived enjoyment, escapism has less explanation power, but its influence is also significant, which means that escapism had the second biggest influence on Murder Mystery playing intention. Fantasy has the least positive and significant influence on playing intention ( $\beta = 0.129, p < 0.05$ ), supporting H3. It is in accordance with Li et al. (2015), whose study found that fantasy was one of the most important

factors. Although it has the least impact, it is relevantly significant. The data showed in Table 5 did not support the social affiliation. It may be because the average time to play Murder Mystery costs 4 to 5 hours. Many people rather play online games which cost much fewer times.

Table 5. Hypotheses results

Hypothesis	Path	Beta	p-value	Results
H1	Perceived enjoyment → Playing intention	0.455	0.000	Accept
H2	Escapism → Playing intention	0.281	0.000	Accept
H3	Fantasy → Playing intention	0.129	0.039	Accept
H4	Social affiliation → Playing intention	0.112	0.170	Reject

### Theoretical and Practical Implications

This study provided several theoretical implications. First, this study is among the first to investigate factors of Murder Mystery playing intention. The previous literature described the process of playing Murder Mystery Games. This paper, for the first time, used a method of data analysis to analyze the factors that affect the intention to play Murder Mystery. This paper fills the main research gap under existing Murder Mystery research. Second, this study extends motivation theory. Motivation theory has been widely used in various fields, including online games, but no paper has applied it to Murder Mystery Games context. Through empirical analysis, this paper proved that motivation theory still has an explanatory effect in the Murder Mystery Games environment.

This study also has important contributions to the merchants of Murder Mystery. First, merchants should focus on perceived enjoyment as the most significant factor of playing intention. In order to attract more players, they should focus on the player's experience. Adding excitement to the game can also have a positive impact on the user's intention to play. In other words, players engage in Murder Mystery games to gain pleasure and distract themselves from



unpleasant events. This study showed that higher enjoyment of the game can increase players' willingness to play Murder Mystery. For example, merchants are suggested to give free snacks and MVP coupons to attract more potential players. Second, as escapism is the second most significant factor, merchants should increase the immersion of the game and let people escape from the tired real life and immerse themselves in the setting of Murder Mystery Games. Merchants can increase engagement by changing the lighting and settings in the game room and providing clothes for players according to the script scene. The author can choose to be close to the player's life in terms of content. It will give people a chance to escape from real life. Third, merchants and screenwriters should increase the degree of fantasy of the Murder Mystery scripts. The writer of the script makes the end of the script open so that the players can imagine the end of the story. Merchants are recommended to give their own insights at the end of the reasoning, and sublimate the ending, which triggers fantasy.

### **Conclusion**

During the pandemic, people who prefer Murder Mystery increased a lot. In order to understand the motivation of players to play the Murder Mystery, and to provide suggestions for Murder Mystery merchants in the epidemic situation to reach the maximum profit, we conducted this research. Because there are few Murder Mystery related literature, we draw factors from online games related literature. Both online games and Murder Mystery require interaction with other players, and both can meet the entertainment needs of players, it is reasonable and appropriate to review online games research. We further identified our variables by drawing on motivation theory. Based on the motivation theory, this paper examined the impact of perceived enjoyment, escapism, fantasy, and social affiliation on Murder Mystery playing intention. After collecting questionnaires and analyzing the data, we found that perceived enjoyment has the greatest impact on playing intention, followed by escapism and fantasy. However, the social affiliation did not show significant influence on playing intention.

Motivation theory has been applied to online games context widely, however, the effectiveness of motivation theory in Murder Mystery environment is still unknown. Through empirical analysis, this paper confirmed that motivation theory still has explanatory power in the context of Murder Mystery. According to the results, we suggested that the offline shops should be decorated in a variety of ways and provide free clothing and snacks to increase customers' playing intention of Murder Mystery Games. Based on our findings, we believe that merchants can increase the degree of enjoyment of the game experience by giving players free snacks and MVP coupons. They can also change the lighting, add costumes and use other ways to increase the immersion of the game, so that players can better escape from real life. For screenwriters, they can choose settings that are more appropriate to the reality of players' lives to make players feel more involved and increase the level of escapism and fantasy of players.

Despite the contributions and implications, this study has several limitations. First, the sample of this study is limited and only has 157 valid data. The results may not response an average attitude towards playing intention for a large number of players. Future studies can target different age groups, different occupation groups to collect more data. Second, the research model of this paper is simple, and only four variables were identified. This study did not consider moderators such as age, occupation, and gender. It is confirmed that age was a key moderator for intention to play online games. However, the moderation role of age on Murder Mystery playing intention is unknown. Future studies are suggested to adopt more variables, including both moderators and mediators. Third, the measurement items in this paper are few, with only three items for each variable. Three items may not represent respondents' overall evaluation towards the variables. Further studies can add more items to each variable.

**Conflict of Interests:** the author has claimed that no conflict of interests exists.

## References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
2. Bloch, P. H., Ridgway, N. M., & Dawson, S. A. (1994). The shopping mall as consumer habitat. *Journal of Retailing*, 70(1), 23-42.
3. Chen Y. (2019). "Murder Mystery" mobile Games: A THREE-DIMENSIONAL Study of Narrative, Interaction, and Time, 48-50.
4. Chou, C., and Tsai, M. (2007). Gender differences in Taiwan high school students' computer game playing. *Computers in Human Behavior*, 23(1), 812-824.
5. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and users acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
6. Fang F. (2021) Murder Mystery Players Group. *FangYuan*, 56-59.
7. Fishbein, M., and Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction theory and research*. Addison-Wesley, Reading, MA.
8. Ghani, J. A., Supnick, R., and Roonev, P. (1991). The experience of flow in computer-mediated and in face-to-face groups. In J. I. DeGross, I. Benbasat, G. DeSanctis, & C. M. Beathm (Eds.), *Proceedings of the 12th international conference information systems* (pp. 229-237). New York.
9. Griffiths, M. D., Davies, N. O., and Chappell, D. (2004). Online computer gaming: A comparison of adolescent and adult gamers. *Journal of Adolescence*, 27, 87-96.
10. Ha, I., Yoon, Y., and Choi, M. (2007). Determinants of adoption of mobile games under Mobile Broadband Wireless Access Environment. *Information & Management*, 44(3), 276-286.
11. Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2010). *Multivariate data analysis: A global perspective (7th ed.)*. Upper Saddle River: Prentice Hall. Pearson.
12. Hirschman, E., and Holbrook, M. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *The Journal of Marketing*, 46, 92-101.
13. Holsapple, C., and Wu, J. (2007). User acceptance of virtual worlds: The hedonic framework. *ACM SIGMIS Database*, 38(4), 86-89.
14. iiMedia (2021). Murder Mystery offline stores has exceeded 30,000, in 2021 Chinese script kills player portraits and consumer behavior analysis (with report download). Retrieved November 27, 2021, <https://www.iimedia.cn/c1020/77763.html>.
15. Koo, D. M. (2009). The moderating role of locus of control on the links between experiential motives and intention to play online games. *Computers in Human Behavior*, 25(2), 466-474.
16. Koo, D. M., Lee, S. H. and Chang, H.-S (2007). Experiential Motives for Playing Online Games. *Journal of Convergence Information Technology*, 2(2), 37-48.
17. Lee, M. C. (2009). Understanding the behavioural intention to play online games. *Online Information Review*, 33(5), 849-872.
18. Li, H., Liu, Y., Xu, X., Heikkilä, J., and van der Heijden, H. (2015). Modeling hedonic is continuance through the uses and gratifications theory: An empirical study in online games. *Computers in Human Behavior*, 48, 261-272.
19. Merhi, M. I. (2016). Towards a framework for online game adoption. *Computers in Human Behavior*, 60, 253-263.
20. Wu, J., and Liu, D. (2007). The effects of trust and enjoyment on intention to play online games. *Journal of Electronic Commerce Research*, 8(2), 128e140.
21. Xiang T. (2020). Murder Mystery: Youth Social "New Favorite". *Experience A Different Life*, 86-87.
22. Xiong, S., Zuo, L., and Iida, H. (2020). Murder mystery game setting research using game refinement measurement. *Lecture Notes in Computer Science*, 12523, 117-125.
23. Yee, N. (2006). Motivations for play in online games. *CyberPsychology & Behavior*, 9(6), 772-775.