The Development of "Mystery Toy Boxes" Economy and Its Influences

on Teenagers' Consumption Concept

Mocheng Yin

Guanghua Cambridge International School, No. 2788, Chuanzhougong Road, Chuansha Town, Pudong New District, Shanghai, 201319, China
Corresponding Author: Mocheng Yin, Email: oqop0809@163.com

Abstract
The popularity of mystery toy boxes has been a major trend, especially among the young post-95 group, in recent years, and the mystery boxes even become a trendsetter. Although the price of a mystery toy box is much higher than its real value, this product with a serious price premium still manages to fascinate countless consumers. The phenomenon made me curious about how it is marketed and the elements of marketing approaches, that capture the psychology of the consumers. This leaded me to wonder how these marketing approaches snatch the psychology of the consumers and whether there is the gap for these marketing approaches and chain to grow. Therefore, this paper explores the question using a combination of the TAM model and a questionnaire survey. Meanwhile, the following conclusions were drawn: 1. The market for mystery toy boxes is only popular among the post-95s basically; 2. The IP effect is crucial to mystery boxes, which are the most popular; 3. The relationship between the dimensions of the TAM model led to the conclusion that perceived entertainment and perceived usefulness have a positive impact on purchase behaviour and purchase intention, while perceived risk has a negative impact on purchase behaviour and purchase intention.

Introduction
Mystery toy boxes are the commodities where consumers do not know in advance the exact style of the product, and the inside toy is attributed randomly. It means the customers know exactly what to buy until unwrapping the boxes. The stimulus of uncertainty reinforces repeated decision making, so that within a certain period of time the mystery toy box becomes habitual. In this respect, like buying a

lottery ticket, there is an element of luck involved.

The origins of the mystery toy box concept date back at least to the Japanese lucky bags of the 1980s, and although various forms of egg twisting and mystery toy boxes existed in China from very early on, mystery toy boxes did not really explode into an economic phenomenon until 2019 year.

In recent years, mystery toy boxes have become the new favorite of consumers, and the whole industry has formed a mature industrial chain. The "mystery toy box economy" has been transformed by the new consumer trend, with no shortage of industry giants emerging to earn billions annually. As the most representative of the mystery toy box industry, "POP MART", the company has become the new darling of the capital market, going from a loss at the beginning of the year to a profit of $1.56 million in 2017 and a profit of $4.51 million in 2019, which has led to explosive growth. And in 2021, Drooled is set to take its performance to the next level with high growth in sales and net profit. At the heart of "POP MART" ability to bring the mystery toy box economy into the ring and earn a lot of money lies its IPs, with results showing that all seven of "POP MART IPs have achieved revenues of over $100 million. However, behind the high profits is the consumer logic designed by "POP MART" to increase revenue and profits, which has seriously affected the consumer values of some young people According to CCTV reporters, over the past two years, the price of mystery toy box merchandise has continued to rise sharply, selling at a price much higher than the actual value and launching hidden models, with mystery toy box dolls costing only 30 yuan a piece estimated to cost 700-800 yuan a piece, a premium almost 20 times more("Pop Mart ", 2022). It seems to me that the price of the

mystery toy box is much higher than the real value, yet this product with a serious price premium still fascinates countless consumers, which makes me wonder what makes the mystery toy box so attractive to teenagers and how its marketing approach captures the psychology of consumers. I also wondered if there was any room for the development of this marketing approach and industry chain. This paper is a combination of a questionnaire and a TAM model to investigate the consumer acceptance of the "mystery toy box" model, especially for the infelunce factor of the age; the effect of the IP;   or other positive and negative impact factors.

The framework of this paper is as follows: section 1 is Introduction, which introduces the background and development of the mystery toy box economy and the significance and motivation of this paper, section 2 is Literature review, which introduces the questionnaire method and the TAM model. Section 3 is the Method, which introduces the composition of the dimensions of the TAM model and the relationships and assumptions between the dimensions. Section 4 is Result and Discussion, which introduces three tables. The first is the sample characteristics, the second is the results of the tests of reliability and validity, and the third is the correlation analysis. The last section is Conclusion, which is a list of the conclusions obtained from the study of this paper.

Literature Review
The "mystery toy box", as the name suggests, is a box in which different items are placed and consumers have the chance to win the product.

Mystery toy box marketing is similar to a merchandising lottery game, which can greatly boost the user's repurchase rate. mystery toy box marketing was initially used to sell a large number of second-hand products in the

secondary generation area, as secondary generation users have a strong loyalty to intellectual property and often have a penchant for collecting, mystery toy box marketing quickly stimulates product sales and exploits users' consumption potential. Today, mystery toy box marketing has become one of the most common ways to sell IP toys and gifts, as well as interactive marketing online and offline.There are countless adults willing to pay for the mestery toy box, exquisite design and strong Big brand power and IP feelings are the main reasons for this phenomenon. According to the survey, 68.91% of consumers are loyal fans of major well-known IP and have no resistance to their favourite blind box IP co-branding s (Huang & Yuan, 2021). IP, this cultural value, to a great extent, affects consumers' commodity choice.

Questionnaires are often used to collect data. Questionnaires are a method of collecting information by creating a set of carefully designed questions and asking people to answer them accordingly. A questionnaire is a set of questions relevant to the purpose of a survey, or a form of questions designed to conduct a survey, also known as a questionnaire. It is a common tool used by people to collect information in social research activities. Researchers use this tool to accurately and concretely measure the process of social action and use sociological statistical methods to describe and analyze the quantities and obtain the necessary survey information.

A web-based recommendation system is an information tool and technology that recommends products for consumers. It can help consumers to find the right products more easily find the right products and help online merchants increase their sales. online merchants, and has been widely used on various shopping sites, bringing This is why it is widely used on various shopping sites, and has brought significant rewards to online businesses. According to 199IT, Amazon sells 73 items per second due to its web recommendation system. system sold 73 items per second, with more than 60% of recommendations According to 199IT, Amazon sells 73 items per second due to its web recommendation system, and more than 60% of recommendations are converted into consumer purchases; according to Zhihu, the web recommendation According to the data of Zhihu, the contribution of online recommendation system to Amazon's sales is over 30%; according to the statistics of Bit.com, the online recommendation system has contributed to more than 30% of Amazon's sales. According to the statistics of Bite.com, the contribution of the online recommendation system to the sales of Dangdang.com According to Bit.com, the contribution of online recommendation systems to Dangdang.com's sales exceeds 100 million RMB(Yang et al., 2016).

For the study: a questionnaire on consumer acceptance of the 'mystery toy box' consumption model, the principles of the TAM model were applied(Zhang & Lei, 2015). The continuous progress and popularization of information technology have brought hope to the improvement of the productivity of enterprises and institutions. Many enterprises do not hesitate to spend a lot of money on their own research and development or introduce MIS, FRP and CIMS systems. However, contrary to people's good wishes, many enterprises' huge investment in technology and information has not brought the expected return(Yang et al., 2016). This is the problem of "information technology paradox" discussed by the academic circles(Kutlu & Yalcin, 2019). For the emergence of paradox, scholars have put forward different views and viewpoints from different perspectives. Some scholars have deeply discussed the paradox from the

perspective of psychology and behavior, and put forward many theoretical models, such as Technology acceptance model (TAM), Task-technology fit (TTF) and theory of reasoned action (TRA)(Guo & Li, 2018). The Technology Acceptance Model is based on the Theory of Rational Behaviour and incorporates the rational kernel of expectancy theory, self-efficacy theory and other related theories. The main focus is on the influence of users' internal beliefs, attitudes and intentions on technology use(Zhang & Lei, 2015). Among them, the research quantity of TAM model is much higher than that of other models, which is also an important basis for many scholars to believe that TAM model has the greatest impact.

In addition, due to more plain service condition, the model was utilized more than 40% in all explanatory systems(Legris et al., 2003).TAM model was first proposed in 1986. Since then, researchers have improved the model to improve its interpretation ability. Among them, domestic scholars such as Gao Ping, Lu Yaobin and Li Ting also have relevant research. TAM model originates from behavior theory. In its improved model, professor's improvement in 1993, 1996 is similar to the original model in terms of theory, but TAM2 takes into account the two convenient effects of society and cognition in terms of theory, which will be more comprehensive(Guo & Li, 2018).

For this paper, on the other hand, this study combines questionnaire methodology and TAM model theory, applied to a mystery toy box economy.

Method

The technology acceptance model assumes that the use of a system is determined by behavioral intentions that depend on both attitude towards use and perceived usefulness, where attitude towards use is determined by both perceived usefulness and ease of use, and perceived usefulness depends on both perceived ease of use and external variables, where perceived ease of use is determined by external variables (Shroff et al., 2011).

However, research in the field of mestery toy boxes has not been focused around a uniform version of TAM. Almost all studies use different factors, samples or techniques to study behavioural intentions. In this study, the most commonly used factor was compiled in a model. The results show that intention to use the LMS is influenced by the following factors perceived usefulness, perceived ease of use and social norms. At the same time, perceived usefulness is influenced by ease of use, social norms and user interface design user interface design and computer perceptions of ease of use were influenced by Self-efficacy(Kutlu & Yalcin, 2019).

Attitude towards use is the individual user's subjective positive or negative feeling about using the system. Behavioral intention is the measurable degree to which a person is willing to perform a particular behavior. This model assumes that the use of the target system is primarily determined by the individual user's willingness to engage in a particular behavior; willingness to engage in a particular behavior is determined by attitude towards use and perceived usefulness; attitude towards use is determined by perceived usefulness and perceived ease of use; perceived usefulness is determined by external variables and perceived ease of use; perceived ease of use is determined by external variables. In examining the model of technology acceptance, perceived usefulness is an example of extrinsic motivation, while perceived fun, perceived happiness and perceived enjoyment are examples of intrinsic motivation, and it was found that the three

variables perceived usefulness, perceived ease of use and perceived fun are positively correlated with attitude, while perceived fun is positively correlated with perceived usefulness.

Result & Discussion

The study was conducted using various stages of the population as the respondents and the questionnaire was distributed online using an electronic questionnaire. The questionnaire survey was conducted on 16 February 2022 and ended on 20 February 2022, over a period of 4 days. A total of 391 valid questionnaires were returned. The characteristics of the valid sample are specified in the Table 1.

The effective sample was not evenly split between men and women, with approximately 34% of men compared to 66% of women, which will receive additional attention in the subsequent analysis. In addition, the overall age profile is young, with over 76% of the sample of the population under the age of 25, meaning that post-95 young people are over-represented. This should also be additionally referenced in the subsequent analysis.Meanwhile, the sample data collected showed that people's incomes were generally low, with a monthly income of RMB 2,000 as the cut-off and a headcount ratio of about 1:1.

Table 1. The characteristics of the valid sample

Sample features		number	Percentages
Your gender	Male	133	34.02
	Female	258	65.98
Your age this year	Under 18 years old	165	42.2
	18-25 years	133	34.02
	25-32 years	51	13.04
	Over 32 years old	42	10.74
What is your approximate monthly disposable income	less than 2000	212	54.22
	2000-5000	96	24.55
	more than 5000	83	21.23
Have you ever bought or learned about mystery toy boxes	Yes	275	70.33
	No	116	29.67

This basic information includes basic questions about gender, age, disposable income and knowledge of the mystery toy box.

In order to ensure the validity of the data collected from the questionnaire and to provide a more scientific data base for our research questions, we conducted a reliability test for each dimension of the questionnaire and a validation factor analysis for each item of the questionnaire, the results of which are shown in the Table 2.

Table 2. The results of the reliability and validity tests

Dimension	Variable items	Factor load	Cronbach's Alphaα
Purchase behaviour	T1、When I consume, I often choose the mystery toy box format	0.803	
	T2、I will spend money on mystery toy boxes from time to time	0.765	0.899
	T3、If I had the chance, I would go for the mystery toy box	0.856	
	T4、I would like to recommend the mystery toy box to people around me	0.888	
Willingness to purchase	T5、I think buying a mystery toy box is something of value	0.810	
	T6、I think it is a good choice to choose to consume in a mystery toy box occasionally	0.695	0.829
	T7、Buying a mystery toy box appeals to me	0.861	
Perceived riskiness	T12、I think the probability of winning a hidden model in a mystery toy box is too low	0.415	
	T13、I think some of the products in the mystery toy box are heavily overpriced	0.574	
	T14、I think the item in the mystery toy box is not what I expected or the product is not useful	0.824	0.837
	T15、I think mystery toy box merchants are over-marketing and not playing	0.824	

	transparently		
	T16、I don't think there is an aftersales service for mystery toy boxes	0.608	
	T17、I don't think the price of the mystery toy box is equal to the real thing	0.784	
purchases attitude	T18、I don't like the way mystery toy boxes are consumed	0.816	0.515
	T19、I am not interested in the products in the mystery toy box	0.800	
	T20、I think the products in the mystery toy box have no real value	0.741	
	T21、The mystery toy box does not have a range that I like	0.594	
	T22、I prefer to buy products directly to save time	0.622	
	T23、I think that buying a mystery toy box is addictive	0.145	
	T24、I am simply attracted to the value of the products in the mystery toy box	0.493	
	T25、I think the mystery toy box is a special case of impulse buying	0.439	
	T26、I think that mystery toy boxes allow me to buy products at a higher price than the price I paid	0.138	
	T27、I am tempted by the low price of the mystery toy box	0.356	
	T28、I see the mystery toy box as mysterious and romantic	0.607	
Perceptual entertainment	T29、I am attracted by the ip in the mystery toy box	0.766	0.898
	T30、I like the unknown surprises that come with a mystery toy box	0.824	
	T31、I think the products in the mystery toy box are sophisticated	0.798	
	T32、Some brands of mystery toy boxes make me enthusiastic about buying them	0.776	
	T33、Mystery toy boxes are a good way to satisfy my collecting appetite	0.836	
External influences	T34、I often see all sorts of advertising placements for mystery toy boxes, etc.	0.546	0.817
	T35、I think that mystery toy boxes are becoming more and more popular	0.605	
	T36、I often see recommendations from celebrity bloggers	0.553	
	T37、I often see deliberate marketing in shopping malls	0.552	
	T38、Many of my friends are fans of the mystery toy box	0.627	
	T39、I often see mystery toy box vending machines in my daily life	0.644	
	T40、I often see a lot of offline shops of mystery toy boxes in shopping malls	0.616	
	T41、I often see the mystery toy box advertised in my WeChat circle of friends	0.641	
Perceived usefulness	T42、I think the IP in the mystery toy box has collector value	0.745	0.832
	T43、I think the products in the mystery toy box have the potential to increase in value	0.708	
	T44、I think the mystery toy box has the potential for derivative development	0.818	
	T45、I think there is a future for the mystery toy box type of marketing	0.723	

Reliability refers to the degree of stability or reliability of a scale, and we focus on internal consistency reliability, which reflects the relationship between questions within a test, examining whether each question on the test measures the same content or trait. The Cronbach's Alpha is used to test for internal consistency reliability. Normally, an Alpha value greater than 0.8 is considered to be of high reliability and satisfies the reliability test; an Alpha value greater than 0.7 is considered to be of acceptable reliability and passes the reliability test. Alpha value above 0.7 is considered acceptable and passes the reliability test. If the alpha value is less than 0.7, the reliability is low and the reliability test is rejected.

Validity refers to the extent to which a measure reflects the content that is intended to be examined, and we focus on construct validity, which refers to the extent to which a test

actually measures the theoretical structure and properties that are intended to be measured. The range of factor loadings is not very strict, usually greater than 0.6 is considered to have a strong correlation, between 0.4 and 0.6 is considered to be barely acceptable, and below 0.4 is considered not to have a correlation.

I set up the questionnaire into seven dimensions and analyzed the reliability and factor loadings for each dimension separately. They are: Purchase behavior, Cronbach's Alpha is 0.899. Willingness to purchase, Cronbach's Alpha is 0.829. Perceived riskiness, Cronbach's Alpha is 0.837. purchases attitude, Cronbach's Alpha is 0.515. Perceptual entertainment Cronbach's Alpha is 0.898. External influences, Cronbach's Alpha is 0.817. Perceived usefulness, Cronbach's Alpha is 0.832.

The results of the reliability tests were mostly above 0.8 indicating high overall reliability and the results of the validation factor analysis were mostly above 0.4 indicating that the data were valid and usable.

However, in some dimensions, the reliability is not within the required range. For example, the reliability of 0.515 and less than 0.7 in this dimension of purchase attitude is low. For example, I am not interested in the products in the mystery toy box. The premise of this description is that I do not like the consumption pattern of the mystery toy box, so it is a negative description. But I am simply attracted to the value of the product in the mystery toy box, the premise of this description is that I like the mystery toy box as a consumption model, so it is a positive description. Because these descriptions are in different directions, the reliability is lower, and the relevance of the questions is weaker when the descriptions are in different directions, so the validity is lower than the standard value. However, because I believe

that all these questions are necessary, none of them were removed.

Regarding correlations, we propose the original hypothesis that perceived usefulness, perceived ease of use, external influences, interpersonal influences, and subjective norms will have a positive impact on intention to use and thus on usage, while perceived risk and perceived cost will have a negative impact on intention to use and thus on usage.

Table 3. The results of Pearson correlation test between dimensions

	W1ave	W2ave	W3ave	W4ave	W5ave	W6ave	W7ave
W1ave							
W2ave	0.791						
W3ave	-0.449	-0.408					
W4ave	-0.333	-0.374	-0.374				
W5ave	0.666	0.702	0.702	-0.354			
W6ave	0.181	0.183	0.183	0.112	0.347		
W7ave	0.523	0.578	0.578	-0.307	-0.113	0.363	

Conclusion

This paper presents an in-depth study of consumer acceptance of the 'mystery toy box' consumption model based on the TAM model. The following findings were obtained: seven dimensions were used: purchase behavior, purchase intention, perceived riskiness, purchase attitude, perceived entertainment, perceived usefulness and external influence. Perceived entertainment and perceived usefulness have a positive impact on purchase behavior and purchase intention, while perceived riskiness has a negative impact on purchase behavior and purchase intention.

Uneven ratio of men to wome， which is more than 1:2, is a limitation in this study. The range selection of the sample is over-simplified setting in questionnaires. Some multiple-choice questions are unspecified in terms of both questions and options. Ignoring gender differences exacerbates the presentation of results caused by differences in male and female characteristics, so that results are heavily

influenced by gender. Another limitation is a deficient side of evidence, that is delivery-personnel-oriented questionnaire. Due to lack of normal access to delivery personnel, small sampling size and simple desgin bwtween disparate element no doubts upset the plan and heavily reduce the availability of conclusion. Besides, a common problem in every questionnaire experiment is a game between ideal and reality. People will not always follow what they have chosen on the questionnaires in the actual situation, even the rational respondents. The assumption of small difference is acceptable though it affects the reliability of data.

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

References

1. Blind box economy _ Baidu Encyclopedia. (2022). Retrieved 22 March 2022, from https://baike.baidu.com/item/%E7%9B%B2%E7%9B%92%E7%BB%8F%E6%B5%8E/23757813

2. Huang, F. M. & Yuan, J. C. (2021). An Analysis of the Reasons for the Rapid Development of the Blind Box Industry: A Case Study of Pop Mart. *China Circulation Economy,* (03), 21-23. doi:10.16834/j.cnki.issn1009-5292.2021.03.007.

3. Kutlu, B., & Yalcin, M. E. (2019). Examination of students' acceptance of and intention to use learning management systems using extended TAM. *British Journal of Educational Technology, 50*(5), 2414-2432. https://doi.org/10.1111.bjet.12798

4. Legris, P., Ingham, J., & Collerette, P. (2003). Why do people use information technology? *A critical review of the technology acceptance model. Information & Management, 40*, 191-204.

5. Shroff, R. H., Deneen, C. C., & Ng, E. M. (2011). Analysis of the technology Acceptance Model in Examining Students' Behavioral Intention to Use An E-portfolio System. *Australasian Journal of Educational Technology, 27*(4), 600-618.