How to Make Rational Consumption Decisions?—From the Perspective of Impulse Buying

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Abstract—Consumer impulse buying behavior has received considerable attention in the field of consumer research. This phenomenon is interesting because impulse buying behavior is influenced by many factors. This paper analyzes data from a sample of 142 questionnaires to extend the relationship between impulse buying behavior and different types of consumers, associated with demographic features (age and gender), shopping way (online shopping and offline shopping), and product classification (utilitarian products and hedonic products). The study of these factors unfolds to analyze the impulse buying behavior of consumers and gives proper suggestions in terms of consumption decisions. This study helps consumers to understand their behavioral characteristics and make proper consumption decisions.

Keywords—consumption decision, demographic features, impulse buying, product classification, shopping way

I. INTRODUCTION

Imagine that a consumer is shopping in a store and sees a lot of items, adds them all to his shopping cart, and buys them all. But the next day, the consumer realizes that he doesn't need all of them or he doesn't like some of them anymore. This is a typical case of impulse buying, which refers to "a consumer experiences a sudden, often powerful and persistent urge to buy something immediately (Rook 1987)."

Many existing studies have examined the behavior of impulse buying. These include the influence of motivation, resources, and marketing stimuli on impulse buying (Dholakia, 2000). First, "impulse buying behavior was significantly related to adventure, gratification, value, and idea shopping motivations (Cinjarevic et al., 2011)." Moreover, Kathleen and Ronald (2007) found "participants whose resources were depleted, relative to participants whose resources were not depleted, felt stronger urges to buy, were willing to spend more, and actually did spend more money in unanticipated buying situations." In addition, there are also studies on how stores should stimulate consumers to impulse buy, "store design, store atmosphere and store layout, they may be better off investing more in price promotions and advertising, which likely have stronger impulse buying effects (Gopalkrishnan et al., 2019)." There are other claims as well. Some studies show self-control is an effective way to reduce impulse buying behavior. Some studies show the factors and processes that undermine self-control are worth studying insofar as they may contribute to causing people to spend more money (Baumeister, 2002). Although there have been many studies analyzing impulse buying from multiple perspectives, there is not much research telling consumers how they should avoid impulse buying. But in fact, many consumers are affected by this problem and they do not want to make impulse purchases. So this paper aims to reduce this problem.

Aim to make suitable consumption decisions and avoid impulsive buying. A questionnaire was designed in this paper that contains questions on demographic features (age and gender), shopping ways (online shopping and offline shopping), and product classification (utilitarian products and hedonic products). Through the results of the questionnaire, the reasons for impulse purchases of different types of people were demonstrated, and then some easy-to-adhere-to and certain solutions for these reasons were proposed, to help people in society reduce the influence of impulse purchases and to make better and more effective consumption decisions. The structure of the paper is to first formulate a hypothesis, then verify the hypothesis through research, and finally analyze how to make appropriate consumption decisions.

II. IMPULSE BUYING BEHAVIOR

Irrationality of behavior is very common in life and there are many studies on impulse buying. Most claims of irresistible impulses are more a matter of rationalization than of genuinely being helpless against strong desires (Baumeister et al., 1998). According to other studies, Baumeister (2002) found that "the effectiveness of self-control depends on multiple factors, including chronic traits and weaknesses, clarity of goals (and absence of conflicting standards), careful monitoring of one's behavior, and depletion of self-regulatory strength caused by prior exertion or decision making." In the paper about consumers making consumer decisions it was mentioned that "consumer make purchases in order to create feelings, experiences, and emotions rather than to solve problems (Mowen, 1988)." Product attraction and online store communication style, moderated by consumer emotions, have a significant impact on consumers' purchase desires (Verhagen & Dolen, 2011). Some stores are typically discount retail environments that focus on low prices and limited store atmospherics, Hansen (2005) found that "price affected perceived quality, which in turn affected attitude, which in turn affected buying intention." With such intentions, it is easy for people to make impulse purchases. However, promotional activities can also damage carefully crafted store images and customer loyalty (Kacen et al., 2012). In addition, some grocery environment stores use some lighting, music, and high service to create a unique shopping atmosphere (Kacen et al., 2012; Bailey, 2008; Hoch et al., 1994) This atmosphere can also motivate customers to make impulse purchases (Kacen et al., 2012). Different countries have different cultures, and there is no significant difference in impulse spending behavior among consumers in different cultural contexts (Gopalkrishnan et al., 2019). In most cases, impulse spending doesn't end well. In a

previous study, academics found that eighty percent of people felt they got negative results after impulse buying (Rook, 1987).

That is why it is essential to classify different consumer behaviors and analyze them for different impulse purchases. I examine different buying behaviors arising from different differential factors in the following four areas.

III. AGE

Impulsive consumption behavior has been analyzed from an age perspective in previous studies. "Individuals with high levels of sociability and shyness are prone to buying on impulse but in different ways. Younger people are more likely to exhibit these behaviors (Dhaundiyal & Coughlan, 2016)." Some young people feel more comfortable socializing than older people and they have high social skills. In terms of income, most students in China receive financial support from their families. Especially for some students who have part-time jobs, they can use the money given by their family for their studies and the money they earn through their part-time jobs for other purchases in general. Meanwhile, adults are more likely to use the money they earn on family expenses, while students have more money to spend on themselves. From the examples around me, young people and old people do not have the same values and they have different understandings, judgments, and choices about impulse spending. Based on previous research, it has been suggested that younger shoppers may be more prone to impulse buying, whereas older people may be better able to their emotions and exercise regulate (Gopalkrishnan et al., 2019) In a study of online buying, it found that younger digital natives achievement-related gamification mechanisms, while older digital natives are more influenced by economics-related gamification mechanisms (Zhang et al., 2020). Young people are more skilled than older people in the use of mobile phones and online shopping, and young people are more receptive to new ways of spending, so young people spend more on impulse.

In most of the studies from the age perspective, the authors use the model variance method or make multiple hypotheses and then analyze the relationship between these hypotheses in comparing the data obtained to conclude. A questionnaire was used in this paper that was designed with questions based on different factors and then the collected questionnaires were analysed and studied in terms of data.

IV. GENDER

There have been many studies analyzing impulse buying behavior from the perspective of gender differences. Early research indicated that women may be experiencing a greater urge to buy than men due to the greater number of total shopping experiences in which women are likely to engage (Kollat & Willett, 1967). Studies on the types of goods that different genders will impulsively buy, females are more likely to buy aesthetic products while males are more likely to buy functional products (Rook & Hoch, 1985). In a study based on these studies, Coley and Burgess (2003) found the following: Women were more likely to experience an irresistible urge to buy compared with men including using

browsing as a method of determining the products they wish to buy. Additionally, women were more likely than men to always buy an item they liked. What's more, it seems that women were more likely to experience positive buying emotions compared with men. Women were more likely than men to report feeling excitement or a thrill when making a purchase. In addition, women are more likely to engage in impulse buying as a way to manage their mood and eliminate stress than men. Women are more aware and more concerned with their moods and in return more able and more motivated to change or maintain their feelings and moods compared with men (Peter & Olson, 2010). There have also been studies that have analyzed these findings specifically. Women tend to carefully scrutinize products before they buy, prefer to choose from an assortment of products, and are more likely than men to pay attention to when items are likely to be on sale (Tifferet & Herstein, 2012; Kruger & Byker, 2009). In terms of marketing incentives, loud music is suitable for male shoppers, who have less time for shopping (Kellaris & Rice, 1993). On-site advertising and visual displays should have a greater impact in the women's sector and on the shelves of products aimed at women (Tifferet & Ram Herstein, 2012).

V. SHOPPING WAY

Most people shop in one of two ways, offline shopping and online shopping. Online impulse buying is defined as "a sudden and immediate online purchase with no pre-shopping intentions (Piron, 1991)." In previous studies, impulse buying has been categorized into four types: suggestion impulse buying, planned impulse buying, pure impulse buying, and reminder impulse buying (Stern, 1962). "Suggestion impulse buying occurs when consumers first meet an item and realize a need for it, and planned impulse buying occurs when consumers have a particular shopping list (Chan et al., 2017)." Whether you go to an offline store or shop online with an electronic device, some shoppers or sellers give a lot of advice to individuals, and you also receive recommendations from people around you such as your friends or family. While online purchases come with a lot of promotions and discounts, offline shopping also comes with these, so these two types of impulse purchases don't have a huge impact on the comparison shopping approach to a person. However, in two other purchasing behaviors, online and offline shopping show a clear difference. Pure impulse buying behavior is when consumers break away from their previous buying patterns because of novelty or other reasons (Chan et al., 2017). This is very easy to happen when shopping online as it is very easy for consumers to go from one store to another, secondly, big data suggests other items with common characteristics based on what a person has searched for, and all these new products are stimulating impulse spending. Reminder impulse buying behavior is when a consumer is alerted that a product is low in stock, among other reasons. This is also very common in online shopping, as many stores will put a label on the back of the product like "only 2 left", which urges consumers to make a quick purchase decision. Taken together, the above four purchasing behaviors show that online shopping is more likely to engage in impulsive spending behaviors than offline shopping. Many scholars' studies have also confirmed this view, they believe that online shopping environments are more conducive to impulse buying behavior than offline shopping environments. This is because the online shopping environment frees consumers from the constraints that they may encounter during physical shopping activities, such as poorly located stores, or physical stores' hours of operation (Eroglu *et al.*, 2001).

VI. PRODUCT CLASSIFICATION

Consumers in culturally disadvantaged societies preferred hedonic over utilitarian products (Lim & Ang, 2008). Hedonic products have more emotional appeal than utilitarian products and are consumed primarily for their ability to provide pleasure rather than utilitarian products (Kacen et al., 2012; Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982). Dittmar et al. (1995) found that emotionally appealing products are more likely to be impulsively purchased than non-emotionally appealing products. However, Impulse buying behavior occurs across many types of products, but can be broadly divided into two categories: utilitarian products and hedonic products. Utilitarian products are practical, instrumental, and functional, whereas hedonic products are sensational (Lu et al., 2016). It has also been previously shown that people feel more guilt when they make hedonic consumption decisions rather than utilitarian consumption decisions. Scholars believe that preferences for utilitarian and hedonic products depend on decision goals (Lu et al., 2016). The product characteristics of hedonic products are more compatible with impulsive consumers who make decisions for others, and the product characteristics of utilitarian products are more compatible with impulsive consumers who make decisions for themselves. In terms of regional cultural differences, while previous studies have shown no significant differences in impulse spending among people from culturally diverse countries, there are also different consumption choices among people in different regions. Consumers in some more culturally orientated societies prefer advertisements for utilitarian products to those for hedonic products, and at the same time, they find utilitarian products more sophisticated, functional, and exciting compared to hedonic products. They also believe that utilitarian products are more sophisticated, functional, and exciting than hedonic products. Although previous research has shown that both utilitarian products and hedonic products are likely to be impulse bought, the city The research was completed in a first-tier city in China, where the culture of consumers in the society is not low. So this paper provides an overview that utilitarian products are more likely to impulse buying than hedonic products.

Based on the discussion above, this study hypotheses:

- H1. Younger people are more likely to make impulse purchases than older people.
- H2. Women are more likely to make impulse purchases
- H3. Online shopping is more likely to be an impulse buy than offline shopping.
- H4. Utilitarian products are more likely to be impulse buying than hedonic products.

VII. RESEARCH DESIGN AND DATA COLLECTION

A. Research Design

A questionnaire method has been used here to test the above four hypotheses. This paper has investigated impulse buying behavior through four independent variables: age, gender, shopping way, and product classification. Some research has also been done to expand the questions focusing on whether people consider impulse buying as a problem and how to reduce the negative effects of impulse buying. A response was used for the age question where people could fill in their exact age. Optional responses were used for other questions such as gender and impulse buying way. In addition, some uncommon terms such as "pleasure goods" and "utility goods" were explained and added to the question so that respondents would not be unsure of how to answer if they did not know the meaning of the terms. Some questions related to consumer decision-making were set in the questionnaire. The respondents were asked if they had ever thought about controlling their impulsive spending behavior and changing their consumer decision-making and asked how they did it and what they thought should be done about impulsive consumer buying decisions. Here the possibilities and places have been given to fill in the blanks for those who have other answers to fill in their ideas. For the questions on the frequency of impulse purchases, to be able to categorize the degree of regret and the degree of economic impact in a more nuanced way, a point scale was chosen to answer: never (1), sometimes (2), often (3), usually (4), always (5).

B. Data Collection

According to the design of the questionnaire, the questionnaire was named "Impact of Impulse Buying on Life" and sent it to some classmates, teachers, family members, and friends, who filled out the questionnaire completely. In addition, some people who do not have a mobile phone or do not know how to use a smartphone were contacted by phone and asked the same questions as in the questionnaire, and collected the data. During this research, a total of 148 questionnaire results were obtained, each of which was complete and usable.

VIII. DATA ANALYSIS

A. Data Analysis

Over the questionnaire 148 questionnaires were received with 6 people who had no experience of impulse buying so their data were removed. This will make the results more accurate since the study is looking at the impulse-buying group. The final number of questionnaires used for data analysis was 142.

1) Validation of H1

To test hypothesis 1, descriptive statistics analysis and regression analysis are performed on the age data, the results of the descriptive statistics are in Table 1.

Table 1. Descriptive statistics of age (N = 142)

Variable	Mean	Standard deviation	Maximum	Minimum
Age	35.014	13.714	78	15

The mean is 35.014, the oldest respondent is 78 years old and the youngest respondent is 15 years old, which is sufficient support that the respondents are reasonable and able to be used for the analysis of the topic of this research. This paper used regression analysis to test hypothesis 1, the results are shown in Table 2.

Table 2. Results of regression age

	Coefficient	Standard error	<i>p</i> -value	Lower 95%	Upper 95%
Age	-0.011	0.007	0.120	-0.024	0.003
Intercept	2.461	0.259	0.000	1.950	2.973
Multiple R	0.131				
R square	0.017				
Square	0.010				
Standard error	1.121				
Age		2.441			

Here the y value in the analysis is the frequency of impulse purchases of a person and the x value is the age to derive the expression. After the above regression analysis, it can be seen that the coefficient of the variable of interest, age, is negative, which is consistent with the hypothesis that the frequency of the behavior of impulse buying decreases as people grow older. Hypothesis 1 is verified. However, the coefficient of the variable age is not significant, which may be caused by insufficient sample size. So the hypothesis is not fully supported in terms of significance.

2) Validation of H2

To test hypothesis 2, statistical analysis and regression analysis on the gender data were performed, the results of the statistical analysis are in Table 3.

Table 3. Statistical analysis of gender (N = 142)

Variable	Category	Frequency	Percentage
Gender	Male	75	52.82
	Female	67	47.18

The number of males and females is very close to each other, and there is no question of too many males being selected or too many females being selected, so the subjects chosen for the study are very suitable and the results of the analyses will be more accurate. This paper used regression analysis to test hypotheses 1. The results are shown in Table 4

Table 4. Results of regression gender

	Coefficient	Standard error	<i>p</i> -value	Lower 95%	Upper 95%
Age	-0.292	0.188	0.123	-0.665	0.080
Intercept	2.239	0.137	0.000	1.968	2.510
Multiple R	0.130				
R square	0.017				
Square	0.010				
Standard error	1.121				
Age	2.403				

Different values to the variable were signed. Here the y value in the analysis is the frequency of impulse purchases by a person and the x value is the gender to derive the expression. This paper has numbered all males 1 and all females 0. After the above regression analysis, it can be seen that the coefficient of my variable of interest, gender, is negative, which is consistent with my hypothesis that the frequency of the behavior of impulse buying of men is lower than women.

Hypothesis 2 is verified. However, the coefficient of the variable gender is not significant, which may be caused by insufficient sample size. So the hypothesis is not fully supported in terms of significance.

3) Validation of H3

Hypothesis 3 was tested through statistical analysis. "Channels most often used for impulse buying" was asked about in the questionnaire, and the results are shown in Table 5.

Table 5. Results of regression gender

Channel	More online shopping	More offline shopping	All the same	Total
Number	85	26	31	142
Percentage	59.859	18.340	21.831	100

From the statistical analyses in Table 5, it follows that in the fifth question (Excerpts from questionnaires, Appendix 1) about impulse buying methods, 85 out of 142 people are more accustomed to buying online, 26 are more accustomed to buying offline, and the other 31 said they are very accustomed to both methods. Many more people buy online than offline, more than twice as many. This data fully supports my previous hypothesis 3-online shopping is more likely to be an impulse purchase than offline shopping.

4) Validation of H4

Hypothesis 4was tested through statistical analysis. "Types of goods most frequently purchased during impulse buying" was asked about in the questionnaire, and the results are shown in Table 6.

Table 6. Types of goods most frequently purchased during impulse buying

Types	Utilitarian products	Hedonic products	Total
Number	97	45	142
Percentage	68.310	31.690	100

From the statistical analyses in Table 6, it follows that in the sixth question (Excerpts from questionnaires, Appendix 1), 97 people are more likely to buy utilitarian products and 45 people are more likely to buy hedonic products, and it is straightforward to conclude that many more people buy utilitarian products than hedonic products, which is in line with my previous hypothesis 4.

B. Deep Analysis

In response to the above analysis, younger people are more likely to make impulse purchases than older people, women are more likely to make impulse purchases than men, online shopping is more likely to be an impulse buy than offline shopping, utilitarian products are more likely to be impulse buying than hedonic products. On this basis, this paper continues in-depth analysis by considering whether impulse buying is a problem that needs to be addressed urgently from three perspectives: economic, psychological, and social. From the economic aspect, there is 25 percent of people believe that impulse buying has had a significant impact on their financial situation, with 2.03 percent of them severely affected, so the problem of impulse buying does not have any impact on people's financial situation at all. From the psychological aspect, even though 43.92 percent of people believe that impulse buying can bring them pleasure and satisfaction, 14.86 percent of people believe that impulse buying brings them some degree of anxiety. From the social aspect, only 24.32 percent of people do not consider impulse buying as a social problem. 72.3 percent of people believe that impulse buying behavior needs to be controlled, and tried to control. In the question of whether or not they regret impulse buying, 45.95 percent felt a greater degree of regret and only 16.89 percent never regretted the goods they bought. Economically, the problem is not particularly serious and only some people are affected. But psychologically and socially, impulse buying has a significant impact on people in society, so it is a problem that needs to be addressed.

IX. DISCUSSION OF FINDINGS

Based on the above analyses, this paper continues to explore whether people make impulse purchases in terms of needs, emotions, and external factors. Therefore, in the questionnaire, the respondents were asked what caused them to make an impulse purchase. The consumers were categorized into three groups based on their responses.

The first group of people answered that needs to drive them to make impulse purchases. The advice to this group of people who often make impulse purchases of necessities is that if they need something, they can look for alternatives to see if there is a similar product that can serve the same purpose. If you don't find anything that can replace it, that means you have to buy it. Then do not rush to buy, you can search for information about the product on the Internet, to get information about the functions of various brands, quality, and price differences, and then according to their economic situation and the required functions buy the most suitable for their conditions of the goods, so that they will not be driven by the need to make some impulse buying behavior.

The second group of people believe that emotional swings cause them to make impulsive buying decisions. People are indeed more likely to make irrational decisions when they are stressed or emotional, and many people go on shopping sprees to relieve their anxiety. The advice for this group of people is: firstly, try to distract yourself. You can find some other ways to relieve your anxiety, such as listening to music or doing exercise, which will not only prevent you from making impulsive buying decisions but also become healthier. If you can't find any other way to relieve your anxiety, you can help yourself understand the specific psychology of impulse buying by keeping a journal or note-taking of your internal activities when you shop. Once you know what emotion you're impulsively buying because of, the next time that impulse occurs, you will develop some self-control, which will reduce the frequency of the impulse buying behavior.

The third group of people made impulse purchases because of some external factors. Some of the respondents said that when they shopped in a clothing shop, the mirrors in the fitting room showed the trousers or dresses very nicely because of the angle of placement, but when they bought them at home, they found that they didn't fit them that well. Other respondents made impulse purchases because of advertisements from merchants. Some advertisements exaggerate the actual effectiveness of the product or provide information about discounts, all of which can greatly increase the customer's attention and lead them to make impulse buying decisions. The advice to this group of people is: firstly,

one needs to carefully screen the authenticity of the information themselves, and whether the merchant is releasing false information to attract consumers to increase sales. If you are unable to make a careful judgment, you can ask some customers who have already purchased their opinion. If you are shopping online, you can also look for buyer reviews on shopping websites. Many customers who have already purchased this product will comment on it and express their own opinions, so these reviews will have a high degree of credibility. Deciding on careful screening can reduce a lot of irrational decisions.

X. CONCLUSION

Drawing upon the literature on impulse buying behavior, a questionnaire was designed to investigate the influence of age, gender, shopping way, and product classification factors on consumer impulse buying. The data obtained was subjected to descriptive statistics and regression analyses, and the results obtained were consistent with the previous hypotheses. Specifically, the findings demonstrate that younger people are more likely to make impulse purchases than older people, and women are more likely to make impulse purchases than men. Online shopping is more likely to be an impulse buy than offline shopping, and utilitarian products are more likely to be impulse buying than hedonic products. The consumers have been classified into three different types, and based on the different characteristics of each type of consumer. Based on the findings of this paper, some ways have come up with to help them reduce their impulse buying behavior and help them make better consumption decisions. Specifically, the first type of people make impulse purchases because they are driven by needs, and the advice to this group is to judge whether they really need it and to learn a lot of information before purchasing so that they don't make the wrong decision because of asymmetric information. The second type of people choose to buy impulsively because of their emotions as a way of venting, the suggestion in the paper is to find other ways to vent first, if there is no way to distract themselves, then you can take the way of bookkeeping, record their own purchases and the reasons for the purchase. The third kind of people is easily influenced by some external factors, such as promotional activities or false advertising. The suggestion is that you can read more reviews from others or improve your ability to recognize the truth of information.

To sum up, this research aims to analyze the reasons for impulse buying by different consumers and help consumers to better understand their buying behavior. At the same time, it is hoped that the methods of controlling impulse buying that have been mentioned in this article will be effective in helping some consumers solve the problems that this issue brings to them.

CONFLICT OF INTEREST

The author has claimed that no conflict of interest exists.

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