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The Influence of Payment Method and Cognitive Level on the Consumption Behavior of Minors

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Abstract: Guiding minors' consumption behavior and forming healthy consumption concept has been the focus of scholars in recent years. This study adopted a mixed experimental design of 3 (cognitive style) *2 (payment style) to explore the influence of subjective and objective orientation on minors' consumption behavior. A total of 60 subjects aged between 4 and 14 were selected for the experiment. The results show that the shopping frequency of electronic money payment is significantly higher than that of cash payment for minors with the same cognitive level. The formation of healthy and rational consumption concept is the basis for the formation of values of minors. This study aims to provide references for family education and promote the formation of ideal consumption concept of minors.

Keywords: Consumption behavior; Minor

Introduction

The transformation of digital technology has greatly changed the way people trade. While the visible and invisible online consumption brings convenience, there are pains that need to be solved urgently. The behavior habits and values formed in this period will have a potential impact on their socialization. Compared with traditional consumption, network consumption has the following differences: First, network consumption relies more on electronic equipment and Internet technology. Secondly, the scale of online consumer groups is constantly expanding, and young people are the main force of online consumption. However, some online consumers, especially minors, are unable to have a better understanding of their own consumption behaviors and are more susceptible to the influence of various marketing methods and strategies, which is also a common behavioral characteristic of online consumers [1].

Consumption concept refers to people's general attitude and views on consumption level and consumption mode [2]. Some scholars have systematically summarized the consumption characteristics of minors in view of their cognitive development level and their relatively easy existence of rebellious and self-limiting, such as irrationality, hedonism, and comparison. The study found that under mobile payment, the consumption times and amount of goods of the subjects were significantly higher than that of cash payment, and the large amount of consumption was not controlled, and more used for hedonic consumption.

To sum up, the question is raised: what about the consumption behavior of minors? What impact will the comprehensive coverage of the Internet have on the consumption behavior of minors? Therefore, the experimental hypothesis is proposed:

Hypothesis 1: In toy simulation shopping, juveniles with the same cognitive level buy more items by electronic currency than by cash.

Hypothesis 2: In toy simulation shopping, with the improvement of minors' cognitive level, the shopping frequency becomes less and less.

Hypothesis 3: The higher the cognitive level of minors, the smaller the difference between the shopping frequency of cash payment and electronic payment.

1. Preparation for experiment

1.1 Experimental subjects

According to Piaget's theory of cognitive development, 20 boys in each age group are expected to be selected as subjects

in the three stages: pre-operational stage, concrete operational stage and formal operational stage. Subjects in the experiment are generally selected according to Piaget's theory of cognitive development stage. Since the age range of sensorimotor stage is 0-2 years old, Children in this period have not been exposed to consumption, and there is no basic independent consumption behavior, so they are not used as the research object of this experiment. Combined with the actual situation, decided to select 5 years old, 9 years old, 14 years old minors as subjects. The subjects were all from Huangpu District, Guangzhou, a total of 60 subjects. After removing the data recorded incorrectly, the final subjects were 58 people. There were a total of 20 subjects in the pre-operational stage, 19 subjects in the concrete operational stage and 19 subjects in the formal operational stage.

1.2 Experimental tools and materials

Experimental software: IBM SPSS Statistics 20.0, Microsoft Excel 2010, Microsoft PowerPoint 2010.

The experimental pictures are divided into two parts. One part is the screenshot of Alipay payment interface and the pictures of RMB banknotes of various currencies. Pictures of RMB banknotes in various currencies are from the Internet. The picture of RMB is presented according to the size ratio of real RMB. The other part of the picture is the toy product picture used in the simulation shopping experiment. The selection of product pictures goes through the following process: First, I search for 40 pictures of toys that boys like to play with and the names of the toys. Then, 15 minors of the corresponding age were asked to choose their favorite ten product pictures using the questionnaire star. Finally, after the data was collected, 57% of the product images were adopted for each cognitive level group. The final pre-operation stage 11 toy product pictures, the specific operation stage 7 toy product pictures, the formal operation stage 10 toy product pictures. A complete PPT consists of four parts, which are experimental instructions, product pictures, payment interface pictures and concluding remarks.

2. Experimental design and implementation

2.1 Experimental design

This study uses 2 (electronic payment, cash payment) X 3 (ex, ex, ex) two-factor hybrid experimental design [3].

Independent variables: There are two independent variables in this study: payment method and cognitive level. There are two levels of payment, electronic payment and cash payment. There are three levels of cognition: preoperational, concrete operational and formal operational.

Dependent variable: The dependent variable of this experiment is the oral report of the subject. Whether to purchase or not, the subject is responsible for recording the result. Finally, the purchase rate of goods in the electronic payment area and the purchase rate of goods in the cash payment area were calculated.

Additional variables and control: The additional variables in this study are mainly subjects' gender and age, experimental environment, experimental materials, subjects, etc.

2.2 Experimental procedures

The experiment was divided into three groups. Each group was matched with a different picture according to how much the minors liked the toy. The procedure was the same between each group except for the picture.

The experiment was a simulated shopping experiment, and the participants were all told that the money used in the simulation was their own money. At the beginning of the experiment, instruction was presented to the subjects. As some subjects were young and had limited understanding ability, the subjects would explain instruction to the subjects. One product picture corresponds to one purchase record, one participant at a time. One PPT includes a product, and one PPT includes a picture of the product and a picture of the payment interface. The image is rendered one click at a time. When the product picture appeared, the experimenter would ask the subjects whether they liked it or not. When the payment interface appeared, the experimenter would immediately ask the subjects whether to buy it. The subjects told the host their decision, and the host immediately took notes with pen and paper. Make a checkmark at the end of the item.

Testing process: The same computer is used for testing. The subjects participated in the whole process of this study and had certain abilities to ensure the accuracy of the measured process.

3. Research results

3.1 Two-factor mixed experimental design analysis of variance based on repeated measurements of experimental data

The results show that the variance of this experiment is homogeneous, that is, the error variances of the dependent variables in all groups are equal. The main effect is the main effect of inter-group variable cognition level, the main effect of intra-

group variable payment method and the interaction between payment method and cognition level. The main effect of independent variable payment mode was significant (F=6.436, P=0.018<0.05). The average value of electronic payment is 0.272, while that of cash payment is 0.181, so the purchase rate of goods by electronic payment is significantly higher than that by cash payment. The main effect of cognitive level was significant (F=6.845, P=0.004<0.01). The interaction between the two independent variables payment mode and cognitive level was not significant (F=2.574, P=0.096>0.05).

3.2 Multiple comparisons after the event

In this experiment, there were 3 levels of independent variable cognition. The results of multiple post-operation comparison showed that the difference between the pre-operation level and the specific operation level was extremely significant (P=0.007<0.01). There was also significant difference between pre-operation level and formal operation level (P=0.002<0.01). There was no significant difference between the specific operation level and formal operation level (P=0.675>0.05). The mean of the pre-operation level is 0.403, the mean of the concrete operation level is 0.156, and the mean of the formal operation stage is 0.120. Therefore, the purchase rate of the pre-operation level is significantly higher than the specific operation level, and also significantly higher than the formal operation level.

4. Discussion

When minors buy toys in the simulated situation, most of them will hesitate to pay in cash, and the success rate of buying will be reduced. However, when the payment method of goods is electronic payment, the success rate of purchase increases.

The reasons may be as follows: First, some minors are still in the pre-operational stage and the concrete operational stage. At this time, minors are not able to think apart from concrete things. Because the manifestation form of cash entity is relatively common, while electronic money is a more abstract symbol, which is the abstract representation of people on the basis of cash. It is difficult for minors to equate cash and electronic money of the same value. So there are more electronic payments than cash payments. Second, electronic payment has certain convenience, rapidity and confidentiality.

5. Opinions and suggestions

5.1 pay attention to the family consumption concept

The family is the first school for children, the parenting style and consumption concept of parents also affect the idea of children's future in the intangible, to cultivate children's rational consumption concept, not blind comparison, extravagance and waste, consumption in accordance with their own actual situation.

5.2 Highlight the ideological guidance of the society

Under the guidance of the socialist system, organizations and party and government organs at all levels should introduce more policies related to adolescent consumption and give active guidance to make electronic money play a positive value orientation and create a good atmosphere for the healthy growth of teenagers. At the same time, the emerging network consumption in recent years to strengthen the network supervision. We should actively publicize positive events related to rational consumption and adhere to the socialist core value system to guide young people to rational consumption.

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