

Study on Impacts of Consumer Psychological Reactance on Purchasing Willingness in the Context of Online Promotion

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Abstract

Psychological reactance is a normal everyday psychological phenomenon and has drawn attention from scholars of various fields. Existing studies show promotions pushed by shopping sites can cause psychological reactance among consumers and impact their willingness to buy. Built on related literature, efforts are made in this study develop a simplified scale for measuring psychological reactance. The scale is distributed online as questionnaires in three universities in Nanjing. 302 such questionnaires are efficiently retrieved out of a total of 323 issued, with an effective rate of 93.4%. Then, SPSS and AMOS are used to assess reliability and validity of data collected via questionnaires. Having verified they are reliable and valid, and established the overall fitting of the model developed, hypothesis testing is conducted. The analysis bears out the hypotheses that obsessive compulsive feeling, manipulative intention inference and perceived goal impediment are all significantly negatively correlated to willingness to adopt. Therefore, online promotion ads pushed by shopping sites during will trigger psychological reactance, lowering consumers' willingness to adopt the message being promoted.

Keywords

Psychological Reactance; Purchasing Willingness; Online Promotion.

1. Literature Review

Online promotion is a marketing behavior that uses existing electronic information technology to delivery various incentives to urge consumers to buy (2000, Chandon) [1]. Zhou (2006) defines online promotion as an method of using incentives of various attributes online to stimulate target customers into making immediate purchase of a specific product or service.

Psychological reactance theory, derived from social psychology, mainly describes the reactions of individuals when they perceive that their freedom is threatened. This theory was put forward by American psychologist Prof. Brehm in 1966. It argues that people believe that they have some specific freedoms of behavior or choice and cherish these freedoms. When these freedoms are deprived or threatened, individuals will develop an aversive motivation state aimed at restoring the deprived or threatened freedoms, namely "psychological reactance" [2]. Psychological reactance theory mainly involves four concepts: freedom, threat, reactance and the restoration of freedom. After the theory was put forward, it has been drawn close attention from researchers and has been widely used in many fields such as education, persuasion, consumer behavior research, psychological counseling and treatment (Wang and Wang, 2011) [3]. Clee and Wicklund (1980) pioneered in-depth discussion of the theory with relation to consumption and pointed out its broad application prospect in the field of consumer behaviors [4]. Nowadays, prevalence of online shopping has greatly re-shaped marketing. Compared with traditional methods, promotion by online shopping platforms via computer and mobile terminal is more targeted. Online promotion can take forms of hunger marketing, targeted and personalized ad push, time-limited discounts, among others.

At present, research of psychological reactance in online marketing scenario mainly focuses on reactance of consumers caused by personalized recommendation ads. Brehm et al. (1966) pointed out that psychological reactance will make consumers more interested in buying goods with limited access. For example, the shortage of a certain item in the store may make consumers feel that their freedom of choosing what to buy is limited, stimulating their psychological reactance and appetite for said item. In some cases, goods that will soon be banned from public sales will be snapped up before the deadline expires.

Moore and Fitzsimons (2014) examine psychological reactance of consumers when goods are out of stock and find that customers with high trait reactance tend to have higher desire for the out-of-stock goods, and their attitude towards restocked goods is more positive than that toward spot goods [5]. However, psychological reactance caused by out-of-stock does not necessarily bring positive outcomes. If consumers have considered to buy the goods that will soon run out of stock, selling-out may also lead to lower consumer satisfaction and higher possibility of their looking for alternative (Fitzsimons, 2000) [6]. Wang Yanping, a Chinese scholar, analyzes the impacts of reference group and time pressure on consumers' psychological reactance when online promotion is underway and finds out the greater the impacts exerted by the reference group and time pressure, the weaker consumers' psychological reactance will be [7].

Existing studies have concluded that information recommendation services may trigger consumer psychological reactance, which will reduce users' willingness to adopt the recommendation. Findings of Fitzsimons and Lehmann show that when active information recommendation service runs contrary to users' initial choice, some users will develop psychological reactance. In this case, instead of playing the expected role, information recommendation may lead to users ignoring, if not acting deliberately against, the recommendation [6]. When a promotion campaign recommends products to consumers, consumers will feel their choices for other products being restrained. In order to restore freedom of choice, consumers will delay their decision to buy recommended products and actively look for similar alternative. Psychological reactance theory explains why users react negatively to ads in promotion campaigns, that is, the threat to freedom will reduce consumers' purchase intention.

2. Hypotheses

According to the definition of psychological reactance, if people feel their freedom is threatened, they will try to restore their freedom. In this case, people will choose to resist external suggestions trying to influence their decision-making and demonstrate an "opposite effect" in response to the forced-upon information. Obsessive compulsive feeling or manipulative intention inference is the experience when an individual's freedom is threatened. In addition to obsessive compulsive feeling and manipulative intention inference, psychological reactance is also reflected in the perceived goal impediment. When the online shopping platform pushes ads to consumers, it not only attracts consumers' attention, but also creates distraction, resulting in interference or perceived goal impediment. Based on literature on psychological reactance, this study selects obsessive compulsive feeling, manipulative intention inference and perceived goal impediment as three measurement variables of consumers' psychological reactance in the context of online promotion, and analyzes their relationship with adoption willingness.

2.1. Obsessive Compulsive Feeling

Psychological reactance theory argues that once consumers perceive that freedom is threatened by the outside world, they will develop disgust and take mitigating efforts to regain freedom. Obsessive compulsive feeling is the compulsive psychological and emotional experience produced in this situation. Online shopping platforms push targeted ads to

consumers based on their preferences when they are visiting the website. This act of trying to change consumers' normal browsing routine is highly likely to arouse a compulsive feeling on the part of consumer. Having perceived that such targeted recommendation is imposed as compulsory, consumers will lower their willingness to adopt. Therefore, the following hypothesis is made:

H1: The more intense the obsessive compulsive feeling, the weaker consumers' willingness to adopt.

2.2. Manipulative Intention Inference

With the personalized promotional ads push, consumers will feel that their personal information is obtained and behaviors are induced by online shopping platform, and infer the manipulative intention, resulting in psychological reactance. Adding to this feeling is the fact that today's shopping platform can record consumers' browsing records and shopping lists, making such intention easily felt by consumers. Therefore, consumers will think that their shopping behavior is manipulated, try to get rid of this sense of being manipulated, and choose not to buy the recommended goods on the shopping platform. In this light, the following hypothesis is made:

H2: The stronger manipulative intention inference gets, the weaker the consumer's willingness to adopt.

2.3. Perceived Goal Impediment

Perceived goal impediment refers to the psychological reactance state generated when the goal being pursued by consumers is interrupted [8] When consumers feel that their pursuit of behavioral goals are disturbed, they are prone to develop psychological reactance. Promotion information sent by online shopping platform will easily interrupt the shopping target searching process. If consumers find that the goods they search for remain elusive, it is easy for them to produce psychological reactance. Therefore, the following hypothesis is made:

H3: The stronger the perceived goal barrier, the weaker the consumer's willingness to adopt.

3. Method

3.1. Subjects

The subjects of this study are from three universities in Nanjing. 323 formal questionnaires are distributed in via WJX.cn. After excluding invalid ones, 302 valid questionnaires remain, with an effective rate of 93.4%.

3.2. Tools

According to the definition and research objectives of psychological reactance in this study, four variables are to be measured, which are obsessive compulsive feeling, manipulative intention inference, perceived goal impediment and willingness to adopt. With reference to psychological reactance measurement scales used in relevant literature, a preliminary questionnaire is drafted, before revising its contents through expert consultation and small-scale test to form the final scale. The scale is divided into two parts: basic user information and variable test. In the basic user information section, respondents are required to fill in gender, age and online shopping frequency. The variable test section includes 15 questions under 4 variables. With the Likert five level scale, a score from "1" to "5" is used to rate attitude toward statements from "very inconsistent" to "very consistent".

Table 1. Variables and questions

Variable	Questions
Obsessive compulsive feeling	1. I think promotion ads are imposed on me.
	2. Embedded promotion ads prevent me from concentrating on searching for goods.
	3. Promotion ads create distraction when I am comparing different goods.
	4. Appearance of recommended goods will induce me to give up the best purchasing solution.
	5. I associate information of recommended goods with compulsive purchasing behaviors.
manipulative intention inference	6. I think recommended goods information is an attempt to influence my decision making and I find it repulsive.
	7. I think the embedded promotion ads aim to obtain the marketing goals instead of helping me making the best decision, which bothers me.
	8. I think the appearance of recommended goods information is an attempt to manipulate and I find it hard to accept.
perceived goal impediment	9. Recommended goods prevent me from checking out what I am truly searching for.
	10. Recommended goods make it more difficult to check out information that is truly useful.
	11. Recommended goods distract me from searching for what I truly need.
	12. Recommended goods restrain my control over information.
willingness to adopt	13. When searching for products, I am willing to pause the current search and focus instead on the embedded promotion ads.
	14. Even if I have decided what to buy, I will still reconsider when encountered with recommended goods.
	15. If I run into similar promotion ads, I am willing to take a little time to check them out.

4. Data Analysis

SPSS and AMOS are used to carry out the following analysis on the questionnaire data:

4.1. Credibility and Validity Analysis

SPSS is used to test the structural validity of the questionnaire. The results show that KMO value is 0.889, Barlett sphericity test value is 7315, DF is 2003 and SIG is 0.000, indicating sound structural validity. In addition, all-factor Cronbach's α coefficient value is greater than 0.7, indicating that the scale items have high internal consistency and good reliability. What's more, the load coefficient of each factor is greater than 0.7, the combined reliability (CR) is greater than 0.8, and the average variance extraction (AVE) is greater than 0.6, indicating that the scale has good reliability and validity. AMOS 21.0 is used to analyze the structural model and the output shows that each fitting index meets standard, the overall fitting effect of the model is sound, and hypothesis testing can be carried out.

4.2. Hypothesis Testing

In this study, a 90% confidence interval is selected, that is, a p value lower than 0.1 indicate significance, and the corresponding hypothesis is determined to be true. The corresponding P values of the three hypotheses in this study are all lower than 0.01, so they stand.

5. Conclusion

The results of data analysis confirm the three hypotheses, which is obsessive compulsive feeling, manipulative intention inference and perceived goal impediment are significantly negatively correlated with consumers' adoption willingness. In addition, the analysis of variance across different groups does not yield significant differences between consumers of different genders and shopping frequencies. To sum up, in the context of online promotion, promotion ads pushed by the shopping platforms trigger consumers' psychological reactance that reduces their willingness to adopt promotion information.

6. Realistic Significance

Psychological reactance and resulting behaviors are consumption-related phenomena. For businesses, this psychology easily causes effects that undermine the marketing campaign, therefore more attention to it is called for and measures need to be taken to guide and moderate it. In fierce market competition, businesses should recognize the existence of possible psychological reactance of consumers, properly understand its characteristics and patterns, and adopt appropriate marketing strategies accordingly.

7. Deficiencies and Outlook

In this study, the sampling size of the questionnaire survey is small, and most subjects are students, which affect the representation of the study conclusions. In the future, it is necessary to expand the size and representation of subjects by investigating consumers of different ages, occupations and income groups, so as to improve the reliability of research conclusions.

There are many reasons contributing to the development of consumers' psychological reactance, including not only internal factors such as individual needs, personality and values, but also external factors such as group pressure and social trend. Some psychological studies divide psychological reactance into trait reactance and situational reactance. Whether the psychological reactance of consumers in the context of online promotion reflects the trait reactance caused by consumers' personality characteristics or the situational reactance as a result of promotion is also worthy of further research.

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