

Sales Promotion and Purchasing Intention: Applying the Technology Acceptance Model in Consumer-to-Consumer Marketplaces

L. Richard Ye

Professor

Department of Accounting & Information Systems
College of Business & Economics
California State University
Northridge, CA 91330-8372, USA.

Hao-hong Zhang

School of Business Administration
South China University of Technology
Guangzhou, China 510640

Abstract

This paper studies the impact of sales promotion on consumers' intention to purchase online in the setting of a consumer-to-consumer (C2C) marketplace. The research is grounded in the theory of Technology Acceptance Model (TAM). We test a number of hypotheses empirically about the relationship between online sales promotion, TAM and C2C online purchasing intention. The finding of this study suggests that, by increasing consumers' perception of ease of use and by decreasing consumer's perceived risk, online sales promotion has a significant impact on their purchasing intention.

Keywords: Sales Promotion; Technology Acceptance Model; Purchasing Intention

1. Introduction

The last ten years have witnessed a tremendous growth in consumer-to-consumer (C2C) e-commerce transactions. According to a recent survey published by the China Internet Network Information Center (CINIC, 2012), more than half of online consumers now purchase regularly through C2C marketplaces. In C2C transactions, consumers can benefit from the availability of a large number of sellers offering similar goods, competitive prices, and much lower transfer costs (Laudon & Traver, 2013). Taking a page from marketing practices in a traditional, brick-and-mortar setting, online sellers may adopt a variety of sales promotion techniques in order to attract buyers and make sales. It is believed that during the C2C online purchasing process, the sales promotion activities will influence the buyers' purchasing behavior. Prior research in C2C e-commerce transactions, however, has paid little attention to the effect and the mechanism of online sales promotion. In this paper, we study the impact of online sales promotion on consumers' purchasing intention in C2C transactions, as explained by the Technology Acceptance Model (TAM). We expect that the results of this study to have important implication in C2Ce-commerce research and practice.

2. Literature Review

2.1 Sales Promotion

Sales promotion consists of a variety of incentive tools, mostly short-term, that are used to stimulate consumers and/or dealers to accelerate the purchasing process or to increase quantities of sales (Kolter & Armstrong, 2010). Sales promotion is certainly one of the critical elements in marketing mix and toolkit for the marketers. Statistics for packaging companies show that sales promotion comprises nearly 75% of the marketing budget (Neslin, 2002). Compared to traditional sales promotion, online sales promotion has similar objectives, characteristics and activities, although implemented within a distinct environment.

Online sales promotion is the activities, using all kinds of inducements, to stimulate the target consumers and accelerate their buying intention to the particular product/service (Pathak, et al., 2010).

Prior marketing research, both theoretical and empirical, focuses on how sales promotion impacts the behavior of consumers, particularly their purchasing decisions (Neslin et al, 1985; Neslin et al, 1995; Zhang et al, 2000). Most studies conclude that sales promotion can significantly impact the behavior of consumers and their purchasing decisions, although the effect of its various components might be different (Neslin, 2002). Similar to other retail methods, online channels have various promotional tools such as logos, banners, pop-up messages, e-mail messages, and text-based hyperlinks to web sites, etc. These types of promotions have positively affected online buying (Gallagher et al., 2001; Thota, et al., 2010).

2.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) is used to explain and predict users' acceptance of an information system over a period of time while interacting with it (Davis, 1989, Venkatesh & Davis, 2000). As shown in Figure 1, TAM is formed by two key variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived Ease of Use refers to the degree to which a person believes that using a particular system would be free of efforts.

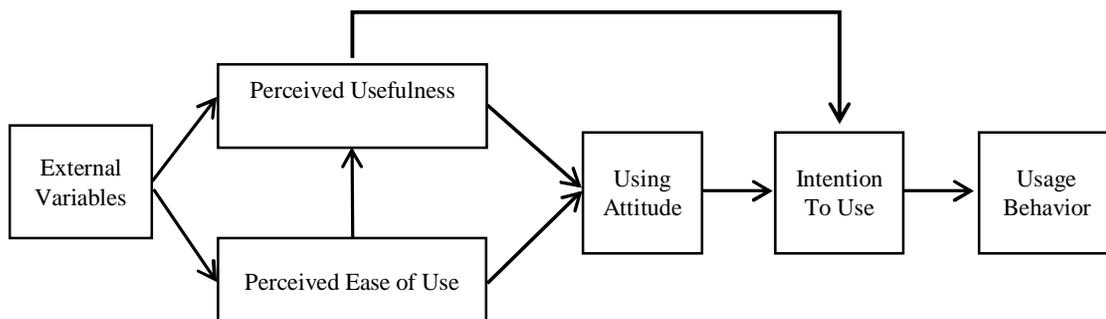


Figure 1: Technology Acceptance Model

Online purchasing is conducted through the interface of a web browser over the Internet, and so consumers must be reasonably comfortable with the use of information technology in order to complete the purchasing process. As a result, online buyers exhibit the characteristics of both a traditional consumer and an information systems user. Prior research, conducted in a variety of context, has indicated that TAM can be used to study consumers' online purchasing behavior, and this model has become one of the most influential theoretical models in the field (Gefen & Straub, 2000; O'Cass & Fenech 2003; Pavlou & Fygenson, 2006).

More recently, researchers have added some new variables to the basic TAM and used them to study online purchasing behavior. Pavlou (2003) joined Trust and Perceived Risk (PR) with TAM and showed that Trust, Perceived Usefulness and Perceived Ease of Use have significantly positive impact on consumers' purchasing intention, while Perceived Risk has a negative effect. McCloskey (2006) also argued that usefulness and trust positively affect online buying intention. Instead of Perceived Risk, Cheng et al (2003) added a Perceived Safety variable to TAM and found it to have a positive impact on purchasing attitude and intention of the online buyers.

3. Research Model And Hypothesis

In addition to sales promotion, our primary independent variable, we also include in this study Perceived Risk as a moderating variable. Our improved research model is shown in Figure 2, followed by the research hypotheses.

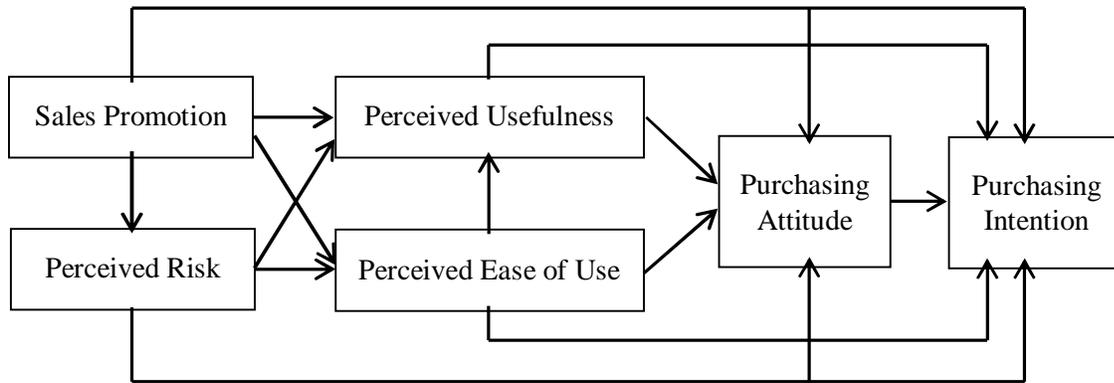


Figure 2: The Research Model

H1: In C2C transactions, Sales Promotion has a positive influence on Perceived Usefulness (H1a), Perceived Ease of Use (H1b), Purchasing Attitude (H1c), and Purchasing Intention (H1d), but a negative influence on Perceived Risk (H1e);

H2: In C2C transactions, Perceived Risk has a negative influence on Perceived Usefulness (H2a), Perceived Ease of Use (H2b), Purchasing Attitude (H2c), and Purchasing Intention (H2d);

H3: In C2C transactions, Perceived Usefulness has a positive influence on Purchasing Attitude (H3a) and Purchasing Intention (H3b);

H4: In C2C transactions, Perceived Ease of Use has a positive influence on Perceived Usefulness (H4a), Purchasing Attitude (H4b), and Purchasing Intention (H4c);

H5: In C2C transactions, Purchasing Attitude has a positive influence on Purchasing Intention.

4. Research Design

4.1 Scales and Measures

This research was conducted as a field survey. A questionnaire was designed, using mostly items from measuring instruments that have been previously tested. All of the perceptual measures were rated based on a five-point Likert scale (1 = not at all and 5 = very much). Before conducting the formal investigation, a pilot test of the questionnaire was administered to a group of fifty (50) graduate business school students. The result of the pilot study was used to make changes and adjustments to the survey instrument.

4.2 Data Collection

For the formal investigation, survey data were collected from a random sample of experienced buyers who frequently shopped on Taobao.com, the largest and most popular C2C e-commerce website in China. All the respondents had shopped on Taobao at least three times during the month prior to taking the survey. As a result, they were considered to be familiar with the purchasing process and to have stable perception of C2C transactions. Three hundred and fifty (350) questionnaires were sent through e-mail to this sample of respondents. Of the two hundred and forty-three (243) questionnaires that were returned, twenty-nine (29) were rejected due to incomplete answers and obvious self-contradictions, leaving two hundred and fourteen (214) usable responses. The effective response rate was 62.6%.

4.3 Adequacy of Measures: Reliability and Validity

Several steps were taken to ensure that the reliability and validity of the survey instrument met minimum requirements. We assessed the reliability of the constructs with Cronbach's alpha in SPSS 12.0. The result showed that Cronbach's alpha of the entire instrument was 0.812. Cronbach's alpha of the individual variables was: Sales Promotion (0.817), Perceived Risk (0.837), Perceived Usefulness (0.731), and Perceived Ease of Use (0.788), respectively. The reliability of each variable is greater than the minimum threshold of 0.7, indicating that the scale had adequate reliability.

As noted earlier, the items of the questionnaire were mainly from previously validated instruments whenever possible to help ensure their validity. Furthermore, before the formal survey, a pilot survey was conducted to provide data for numerous revisions of the instrument. The result of Factor Analysis showed that: KMO value was 0.766, and Bartlett's test was significant ($P < 0.001$). Of the four factors extracted, each had an eigenvalue that was greater than 1, the accumulative variance explained was 71.557%, and the minimum Average Variance Extracted (AVE) of the variables was 0.536, which is larger than the threshold of 0.5. The result of Factor Analysis indicated that the instrument had acceptable validity.

5. Results

We used the Confirmatory Factor Analysis in AMOS 7.0 to test the research hypotheses. The model yielded high X^2/df (0.929), GFI (0.825), NFI (0.889), CFI (0.933) and RMSEA (0.066), which are all within the accepted limits. Shown in Figure 3 are the results of the hypotheses test, with insignificant paths removed.

TAM is strongly supported. Perceived Usefulness significantly and positively affects Purchasing Attitude and Purchasing Intention, providing support for H3a and H3b. Perceived Ease of Use significantly and positively affects Perceived Usefulness and Purchasing Attitude, but not Purchasing Intention. As a result, H4a and H4b are supported, but H4c is not supported. Purchasing Attitude has a significant impact on Purchasing Intention, providing support for H5.

Sales Promotion has a significant and positive effect on Perceived Ease of Use, and a negative effect on Perceived Risk, but the effect on Perceived Usefulness, Purchasing Attitude and Purchasing Intention is not significant. Therefore, H1b, H1e are supported, while H1a, H1c and H1d are not supported. Perceived Risk has a significant and negative effect on Perceived Ease of Use, Purchasing Attitude, and Purchasing Intention, but not on Perceived Usefulness. Therefore, H2b, H2c and H2d are supported, while H2a is not supported.

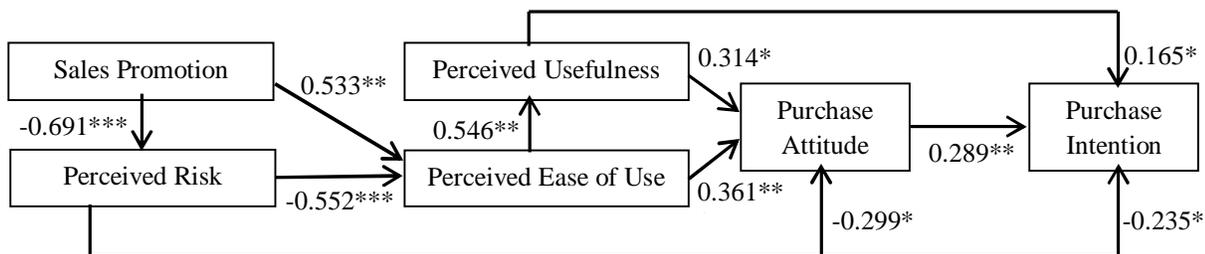


Figure 3: Hypothesis Test Result (***: $P < 0.001$; **: $P < 0.01$; *: $P < 0.05$)

6. Discussion and Conclusions

This study is designed to investigate whether and how sales promotion affects online buyers' purchasing intention in C2C e-commerce transactions. Two external variables, Sales Promotion and Perceived Risk, are included in the basic Technology Acceptance Model. The results provided support for the TAM-based research model, indicating that consumers' purchasing attitude and intention in C2C transactions could be explained and predicted by Perceived Ease of Use and Perceived Usefulness. The results suggest that sales promotion doesn't impact purchasing attitude and purchasing intention directly. Instead, it influences perceived risk and Perceived Ease of Use, which in turn impact purchasing intention. Thus, perceived risk and Perceived Ease of Use are mediating variables, with the former influencing the dependent variables negatively while the latter influencing them positively.

These findings have important implications for sellers in the C2C marketplace and for online business entities that create and operate such marketplaces. First, it appears that the objective of sales promotion should be focused primarily on providing desired information to consumers and on simplifying their purchasing process, making it easier for consumers to locate information and to complete the technology-mediated transaction process. It is also recommended that sellers should pay more attention to improving communications with consumers and to improving customer service. Second, due to the numerous potential risks in online purchasing, a buyer's primary concern is likely to be loss avoidance, rather than utility maximization (Ha, 2002). Online sales promotion should aim to reduce consumers' perceived risk by providing sufficient information to stimulate consumers and by helping them use the shopping system properly, especially the online payment system. Reducing their perceived risk would directly impact consumers' purchasing attitude and intention.

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