UNDERSTANDING AND PREDICTING ONLINE PURCHASE INTENTION: DEVELOPMENT OF A MODEL FOR COGNITIVE-AFFECTIVE SHOPPER RESPONSES

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Abstract— This paper aims to develop a model for online purchase intention in a B2C environment, integrating cognitive and affective responses based on the theory of reasoned action. Seven hypotheses were developedand tested on a dataset of 532 observations collected via a questionnaire survey. The results of this study indicate that both cognitive and affective judgements are important for online transactions.A contribution of this study is that it extends our understanding of how online purchase intention is formed through a cognitive-affective process.

Keywords— Online Trust, Pleasure, Arousal, Attitude, Purchase Intention.

I. INTRODUCTION

Purchase intention has long been shown to be a good predictor of purchasing behaviour (Morwitz et al., 2007). In online settings, a positive and significant relationship was also found between consumer purchase intention and actual purchasing behaviour (Kim et al., 2008; Pavlou and Fygenson, 2006). Thus, understanding how to increase consumers' intentions to shop online is a vital goal for e-marketers.

In an e-commerce context,several attempts have been made to understand what contributes to shoppers' intentions to buy from websites. Among the many influencing factors, online trust, as a salient belief about e-vendors, has been expected to play an important role (e.g. Elwalda et al., 2016). This may bebecause of the nature of online environments, where shoppers suffer from face-to-face communications with e-vendors. Despite the fundamental role played by e-trust in enhancing online purchase intention in B2C environments, the available evidence suggests that the presence of trust alone may not be adequate for encouraging consumer transaction intentionsbecause shoppers' affective responses (e.g. emotions) play a key role as well (Fang *et al*., 2014; Liu and Goodhue, 2012). Thus, it seems to be timely for e-shopping research to move beyond the single role of cognitive effects (e.g. e-trust or attitude) and to investigate affective responses as well. If both cognitive and affective components are presented, then shoppers are more likely to purchase from the site in the future (Sharifi, 2014). This study, therefore, seeks to add to the literature in this regard by developing a model explaining how online purchase intention can be affected by a set of cognitive as well as affective responses.

The paper begins with a theoretical background. After which, the proposed model and hypotheses are developed, followed by the research methodology, resultsand conclusion.

II. THEORETICAL FOUNDATION AND RESEARCH MODEL

In order to understand the mechanism through which purchase intention is formed related to B2C websites, this study develops a model (see Figure 1) that combines consumers' emotional responses (of pleasure and arousal) with the theory of reasoned action (TRA).According to TRA (Fishbein and Ajzen, 1975),the proximal determinant of a behavior is a behavioral intention, which is determined by attitude and subjective norm. The factor of "attitude" refers to a person's overall evaluations of performing the behavior, and it is largely determined by beliefs that performingthe behavior will result in particular consequences. A subjective norm refers to one's perceptions that most individuals who are important to him/her consider he or she should or should not perform the behavior (Fishbein and Ajzen, 1975).

Although the TRA is considered robust methods for studying behavioral intentions, through the inclusion of important cognitive elements such as beliefs and attitude, they have been questioned in recent years for their limited explanatory power. A major limitation of the TRA is that it is "too 'rational,' not taking sufficient account of cognitive and affective processes, that are known to bias human judgments and behaviour." (Ajzen, 2011, p. 1115). Taking these limitations into account, the model proposed in this study attempts to integrate emotional responses (pleasure and arousal) with cognitive responses from the TRA(beliefs and attitudes) in order to provide meaningful insights into the process through which behavioral intention is formed.

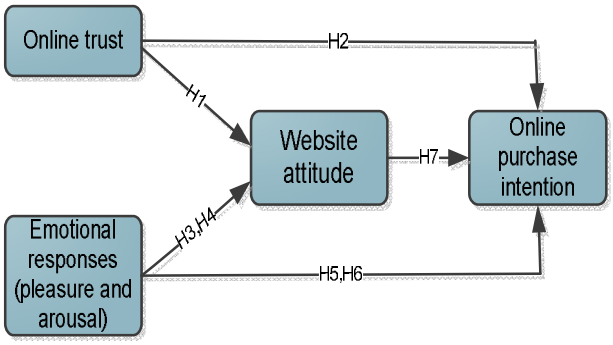


Figure 1: Research model

III. HYPOTHESES DEVELOPMENT

In this section, we develop the hypotheses that pertain to the proposed model.

3.1 Online trust

Drawing upon the TRA, Ajzen (2011, p.1116) believes that "our beliefs produce attitudes, intentions and behaviours consistent with these beliefs". In addition, the study of Chiu et al. (2010), with 412 online participants, suggested that trust may be a key driver to shoppers' behavioural intentions. In this study, we propose the following hypotheses:

Hypothesis 1:*Consumer trust in the website has a positive impact on website attitude.*
Hypothesis 2:*Consumer trust in the website has a positive impact on online purchase intention.*

3.2 Emotional responses(pleasure and arousal)

In this context, Cyr et al. (2007) argue that consumers' emotionstoward a product or service may affect cognitive reaction (e.g. attitudes) toward the offering or company. According to Rodgers and Harris(2003), positive emotions can also encourage behavioral intentions. More recently, Eroglu et al. (2014) has proposed that pleasure and arousalenhanced from websites may have a positive effect on attitude change and behavioral intentions. This study, therefore, suggests:

Hypothesis 3: *Consumer pleasure induced by using a website has a positive impact on website attitude.*

Hypothesis 4:*Consumer pleasure induced by using a website has a positive impact on online purchase intention.*

Hypothesis 5:*Consumer arousal induced by using a website has a positive impact on site attitude.*

Hypothesis 6:*Consumer arousal induced by using a website has a positive impact on online purchase intention.*

3.3 Website attitude

According to the TRA, a more positive attitude toward a behavior would lead to higher intention to engage in the behavior(Fishbein and Ajzen, 1975). In an e-commerce context, Shaouf et al. (2016) were able to finda positive relationship between attitudenal components and online purchase intention. Accordingly, we hypothsize that:

Hypothesis 7:*Consumers' attitude toward the website has a positive impact on online purchase intention.*

IV. RESEARCH METHODOLOGY

In order to test the proposed hypotheses, a survey instrument was developed based on previous research. The survey questionnaire was distributed to a large number of online shoppers in the UK, in which 532 questionnaires were deemed as usable.Of the 532 participants, 288 (54.1%) were males and 244 (45.9%) were females. The vast majority of participants (94.9%) had at least fouryears of experience with the internet.The task of data collection was divided into three stages. In the first stage, the participants were informed about the purpose of the study, and then they were asked to complete the first section of the questionnaire, which included demographic characteristics and online behavior questions. Then, the participants were instructed to visit the home page of the Olympuswebsite, and then and to browse it with the intention of purchasing a digital camera from this website. Immediately, the participants were asked to complete the rest of the questionnaire based on their experiences with this website.

V. DATA ANALYSIS AND RESULTS

In this study, the reliability and validity of the collected data were first checked. This includes the assessment of Cronbach's alpha, Composite Reliability (CR), and the average variance extracted (AVE). The results of reliability and validity tests are shown in Table 1. All values of Cronback's alpha, CR and AVE met the criteria of good reliability and validity (Hair et al., 2014).

To test the hypothesized paths in our model, structural equation modeling (SEM) using AMOS 21.0 was then used.

Table1. Reliability and validity tests

	Cronback's α	CR	AVE
Online trust	0.908	0.909	0.626
Pleasure	0.935	0.936	0.711
Arousal	0.917	0.917	0.649
Website attitude	0.822	0.826	0.543
Online purchase intention	0.921	0.922	0.747

The results of SEM are summarized as follows.

(1) The results show a positive and significant relationship between consumer trust in the website and attitude toward the website ($\beta = 0.38$, $p < 0.01$). Therefore, H1 is supported.
(2) A positive direct relationship between consumer trust in the website and online purchase intention was established by our data ($\beta = 0.14$, $p < 0.05$), providing empirical support for H2.
(3) The results indicated that pleasure felt by consumers during the website visit had significant impacts on both website attitudes and online purchase intention ($\beta = 0.25$, $p < 0.01$, and $\beta = 0.13$, $p < 0.01$), respectively. The effects of emotional arousal on website attitude and purchase intention were also positive and significant ($\beta = 0.17$, $p < 0.01$and $\beta = 0.12$, $p < 0.05$),respectively. Therefore, H3, H4, H5 and H6 were supported.
(4) Finally, the results showed that website attitude and online purchase intention are positively and significantly associated ($\beta = 0.55$, $p < 0.01$), supporting H7.

CONCLUSION

This study has developed a research model explaining how online purchase intention is formed inB2C environments. The model was developed based on the theory of reasoned action (TRA), where online trust, attitude, pleasure and arousal were integrated and examined related to consumer intention to shop online. The results obtained from this studyempirically confirmed the importance of cognitive and emotional responses in forming behavioural intentions in online environments. This paper has extended our understanding of how e-trust and emotional responses influence consumers' attitudes toward the website and their intentions to purchase from B2C websites.

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