A Conceptual Model of Consumers' Purchase Intention on Different Online Shopping Platforms

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Abstract. The first objective of this paper is to provide a more comprehensive conceptual model which can be utilized in the examination of the effects of stimuli on online consumers' behavior and their decision making processes when they are contemplating a particular purchasing action or environment on various online shopping platforms. The proposed conceptual model was constructed by exploiting one of the theoretical framework of consumer behavior, the Stimulus-Organism-Response Model (S-O-R Model), as a base model and incorporating various related literature in the context of online shopping platforms into the base model and then develop into a conceptual framework. The second objective is to present the proposed conceptual model which can be utilized to study the differences of online consumers' behaviors on different online shopping platforms. The variables that were incorporated with the S-O-R Model include website interactivity (active control and reciprocal communication), perceived risk, social identity, website involvement (affective involvement and cognitive involvement), flow (perceived enjoyment, concentration, and curiosity), and purchase intention.

Keywords: E-commerce · Social-commerce
Stimulus-Organism-Response Model

1 Introduction

Currently, with the rapid changes of technologies which leading to several newly emerging technologies, people have been extremely impacted with this phenomenon in various aspects ranging from the way they live their daily lives to the way they organize their businesses. One of the newly emerging technologies that has been impacted people the most in various dimensions is social media including social network services. Besides the impact on people's daily lives, social media has extremely impacted on e-commerce industry. Social media has enormously transformed the environments of the e-commerce industry from product-oriented environment to social-oriented and customer-oriented environments. The newly emerging transformation of e-commerce has been recognized as s-commerce or social-commerce. Furthermore, s-commerce has

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been not only absolutely impacted on the environments of the e-commerce industry but also has been incredibly impacted on online consumers' behavior and their decision making processes.

This paper is aimed to present a comprehensive model that can be utilized to investigate the effects of stimuli on online consumers' purchase intention of different online shopping platforms including the platforms evolved by those newly emerging technologies.

2 Literature Review

2.1 Stimulus-Organism-Response Model

Stimulus-Organism-Response Model is the theoretical framework created in the area of cognitive approach. Moreover, it is a model among many well-known consumer behavior models. The objective of this model is to study and understand consumer's decision making processes in various level ranging from individual, groups, to organizations. The major objective that many researchers exploit the S-O-R model in the research studies is to evaluate how stimulus affects consumers and their behavior. The model was separated in to three parts including, stimulus, organism, and response. Stimulus part could be environmental or social stimuli. Moreover, the stimulus affects the second part of the model, organism part. Response is the result from the effect of the antecedents to the organism part. Bray [3] discussed in his study that consumers' processing of information is influenced by their past experiences. Furthermore, these experiences influence the consumers on what is the information they will seek and receive as well. The S-O-R Model can be depicted in Fig. 1.

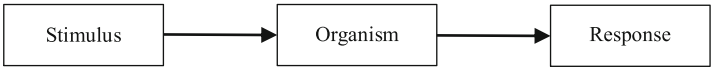

Fig. 1. Stimulus-Organism-Response Model

In the context of online platforms, Haung [9], a major researcher who used the S-O-R Model, suggested that the stimulus part of the S-O-R Model could be online stimuli which influence consumers' organic experiences. Furthermore, these online stimuli can subsequently affect the response part of the model as well. Eroglu, Machleit and Davis [7] also suggested that the stimuli are directly related to the application's technological features. Furthermore, they also similarly stated the same suggestion as Huang [9] in that these stimuli also have influences on the organic experiences of consumers. Haung [9] suggested that environmental cues can act as stimuli in the S-O-R Model and both affectively and cognitively affect consumers' reactions. In the context of online shopping, Eroglu et al. [7] suggested that stimuli are directly related to the design features of the platform which are used to interact with the users. For the organism, Eroglu et al. [7] also defined the definition of this part as the cognitive or affective (emotional) systems of consumers. These systems include consumers' feelings, schema, cognitive network, and

so forth. Additionally, the response of the consumers in this context can be in various formats ranging from conscious response to unconscious response and nonvisible (internal) response to visible (external) response.

2.2 Website Interactivity

In the context of online shopping platforms and social network services, Huang [9] suggested that an online shopping platform and a social network service need the capabilities of web-based communication and interactive technology in order to provide the interactivity to their users (consumers). This cooperative capability is called website interactivity. Jiang, Chan, Tan and Chua [10] suggested that there are two aspects of website interactivity that consumers encounter or engage with while they are making decision on their online purchases, mechanical interactivity and social interactivity. Jiang et al. [10] utilized active control and reciprocal communication as the demonstrations of mechanical interactivity and social interactivity consecutively. Huang [9] stated in his research study that interactivity has significant effects on both website involvement and consumers' flow experience.

Active control is defined as the capability to select information and conduct an interaction [9]. However, many research studies define active control as interactivity that allows consumers to communicate synchronously with the online shopping platforms and other users. Jiang et al. [10] suggested that active control is an essential component that influences users to interact with technologies.

Reciprocal communication is defined as the ability of communication between two or more entities [9, 10]. A user can experience reciprocal communication via communication tools provided by a web site, i.e. email or live chat. The main objective of providing communication tools is to provide the channels to users to involve in connection with online shopping platforms. Some research studies have suggested that reciprocal communication increasing could heighten communication intimacy and could lessen the relationship uncertainty between users and the online shopping platforms.

2.3 Social Identity

In the context of social network services, Huang [9] suggested that "social identity occurs when people seek to evaluate in-group similarities and out-group distinctiveness in social comparisons." Therefore, he defined social identity as "a user self-esteem and commitment to groups in a social networking site." Likewise, Cheung and Lee [5] also defined social identity as "the self-awareness of one's membership in a group, as well as the emotional and evaluative significance of this membership."

Cheung and Lee [5] and Huang [9] suggested that social identity composes of three major components, evaluative social identity, cognitive social identity, and affective social identity. Additionally, Cheung and Lee [5] also defined evaluative social identity as "the evaluation of self-worth on the basis of belonging to a particular group," cognitive social identity as "the self-categorization process renders the self stereotypically interchangeable with other group members, and stereotypically distinct from outsiders," and affective social identity as "a sense of emotional involvement with the

group, which is characterized by identification with, involvement in, and emotional attachment to the group." While, Huang [9] also defined evaluative social identity as an "indicator of the evaluation of self-worth to an online group," cognitive social identity as "the process of self-categorization into an online group," and affective social identity as "a sense of emotional attachment to the online group." From the research study of Cheung and Lee [5], they suggested that evaluative social identity, cognitive social identity, and affective social identity should be treated as first-order component and social identity should be conceptualized as a second-order latent construct.

In many previous research studies, many researchers discovered significant impacts of social identity in many dimensions. Kwon and Wen [13] suggested that, from the previous research studies, the researchers discovered the significant impact of social identity on attitude. While, Arnett, German and Hunt [2] and Simon [19] suggested in their research studies which can be implied that people with high social identity tend to perceive in-group feeling and tend to prefer a group that can provide positive self-image to them. Moreover, this perceived in-group feeling can positively distinguish these people from out-group feeling as well. Clément, Noels and Doeneault [4] discovered that users with social identity need communication support from the platforms. This can be implied that these users perceive a social network service as a useful tool because it can provide the collaboration capability to them. Song and Kim [20] recommended that social identity is a significant determinant that has an effect on the intention to use a system, a service, or a specific technology.

2.4 Perceived Risk

From the classical decision theory, the variation in distribution, possibilities, and subjective values of possible outcomes are the sources of risk. Additionally, the theory of consumer's perceived risk stated that the sources of perceived risk are from the uncertainty and prospectively undesirable outcomes resulting from a purchase. Many research studies stated that the higher the risk the consumer perceive; the lower probability they will purchase the products or services. Nevertheless, consumers can reduce the risk by adopting many risk reduction strategies, i.e. gathering more information before making decision on their purchases.

In the context of online shopping platforms, perceived risk can be classified into nine dimensions including perceived financial risk (economic risk), perceived performance risk, perceived social risk, perceived physical risk, perceived psychological risk, perceived time-loss risk, perceived personal risk, perceived privacy risk, and perceived source risk. However, from these nine dimensions, Lim [14] continued to identify the sources of these risks and then classified them into four sources including technology, vendor, consumer, and product. First, perceived technology risk was defined as "the degree to which individuals believe that if they purchase products or services through the Internet, they will suffer losses caused by the Internet and its related technology" [14]. Secondly, perceived vendor risk was defined as "the degree to which individuals believe that if they purchase products or services through the Internet, they will suffer losses caused by Internet vendors" [14]. Thirdly, perceived consumer risk was defined as "the degree to which individuals believe that if they purchase products or services through the Internet, they will suffer losses caused by social pressure. Social pressure

refers to pressure individuals receive from their families, friends, or colleagues" [14]. Finally, perceived product risk was defined as the degree to which individuals believe that if they purchase products or services through the Internet, they will suffer losses caused by products" [14]. However, Lim [14] found that, for online consumers of B2C e-commerce, there are only three sources of risk that have been perceived, perceived technology risk, perceived vendor risk, and perceived product risk. Vijayasarathy and Jones [21] and Lim [14] suggested that perceived risk has a significant effect on consumers' online shopping behaviors in an online shopping situation. As a result, perceived risk is proposed to be the stimuli part of the model.

2.5 Website Involvement

In the context of online shopping platforms and social network services, the concept of purchase involvement has been widely exploited in many research studies. From previous research studies, the researchers confirmed the moderating effect of involvement on purchase intention [7, 16, 22]. On the other hand, some research studies have paid more attention on website involvement because the researchers believe that it is a long-term involvement with direct influencing power on shaping consumers' behaviors.

From previous research studies, there are two aspects of website involvement that have been mostly investigated, affective involvement and cognitive involvement [9–11, 23]. Eroglu et al. [7] and Koufaris [12] suggested that affective or emotional involvement and cognitive involvement of consumers can be enhanced through the interactions with websites. Eroglu et al. [7] also suggested that the features of websites, i.e. sound, animation, color, website information, can enhance affective involvement because these features can enhance users' happiness and experiences while they are shopping on those websites. Moreover, website cues, i.e. images, price, and description of a product, sales policies, can enhance cognitive involvement as well. Kim and Lennon [11] demonstrated about cognitive involvement that "the cognitive state concerns issues regarding how online shoppers interpret information provided online and form thoughts and beliefs toward the service/product being provided." They also demonstrated about affective involvement that "users can also be affectively involved with a social networking site through features such as friend messages, photos, music, movies, chat windows, and game activities." Huang [9] stated that the higher involvement consumers have; the higher positive online experiences consumers gain.

In this context, Huang [9] defined involvement as "a consumer's overall subjective feelings of personal relevance." Whereas, Jiang et al. [10] defined involvement as "the perceived relevance of the website based in the inherent needs, values, and interests of the consumer." Additionally, in this context, there is a variation in defining the definitions of affective and cognitive involvement. Jiang et al. [10] defined affective involvement as "affective involvement is associated with "emotional, hedonistic" and is derived from value-expressive or affective motives." They also defined cognitive involvement as "cognitive involvement is associated with rational, thinking, and is induced by utilitarian or cognitive motives." Whereas, Kim and Lennon [11] defined affective involvement as "affective responses reflect emotions and feelings evoked by environmental stimuli" and cognitive involvement as "cognitive responses describe

consumers' internal mental processes and states, and involve memory, knowledge structures, imagery, beliefs and thoughts."

2.6 Flow

The origin of flow theory is from the psychology, but, it has been exploited to deal with optimal user experiences in various contexts, especially, technology usage [15]. The theory of flow has been exploited to describe a state of people in which "people are so involved in an activity that nothing else seems to matter" [6]. In the state of flow, people lose their self-consciousness and feel that they have the power to control their environment because all of their awareness is totally used in focusing on the activity that they are performing. Flow is recognized as a complex concept that researchers can operationalize it through various dimensions. Nevertheless, there are four dimensions or constructs that many research studies exploited in their works to measure flow including enjoyment, concentration, perceived control, and curiosity.

Recently, most of the researchers in the context of online consumer experiences or online consumer behavior have been initially paid their attentions to study flow [1, 8, 12, 18]. The reason behind this phenomenon is that people can develop positive emotions naturally when they are being in the state of flow because flow is a highly enjoyable and absorbing experience [9]. For online consumers, online environments of the websites can generate flow by involving consumers with those environments. Huang [9] suggested that users who enjoy their existence in virtual platforms are more likely to invest more time and money in purchasing the products available on that platforms. From previous research studies, researchers discovered the positive relations between flow and purchase intention and between flow and return intention in the context of online shopping and website usage [12, 17]. As a result, flow theory is proposed as a part of the organism part of the conceptual model.

2.7 Purchase Intention

Huang [9] suggested that purchase intention is one among many forms of consumers' online experiences. Moreover, consumers' responses aroused from purchase intention can be in various forms and reactions ranging from consciously purchase product(s) to unconsciously purchase product(s) [9]. In the research study of Huang [9], he demonstrated that online experience can be classified into two categories, direct product experience and indirect product experience. Direct product experience occurs when a consumer interacts with a product and directly obtain information from this action. Indirect product experience come from consumer's experience about a product and is mediated by an advertising. Furthermore, direct product experience has significant influence on consumer's expectation toward a purchase.

From previous research studies, the results showed that affective involvement, cognitive involvement, and flow significantly affect consumers' purchase intention.

3 Proposed Conceptual Model

The conceptual model was constructed based on the S-O-R Model and the combination of literature. The first major objective of the conceptual model is to provide more comprehensive model that can be utilized to study the differences of online consumers' actions on various online shopping platforms. Furthermore, this conceptual model is aimed to be utilized as a metric to capture those differences. The second major objective is to provide a conceptual model which can be exploited to examine the effects of stimuli on online consumers' behavior and their decision making processes. The details of the proposed conceptual model are discussed as follows.

3.1 Online Stimuli

According to the S-O-R Model and related literature, there are four variables which can be representatives of the stimuli (S) part of the S-O-R Model and are included in the conceptual model. The descriptions of these variables are as follows.

Active Control: The intention of this variable is to capture the degree of controlling capability that the platforms allow users to choose information and guide their interactions with the platforms.

Reciprocal Communication: The intention of this variable is to capture the degree of the ability of two-way communication tools that the platforms provided to their users.

Perceived Risk: The intention of this variable is to capture the different types of risks that the users perceived while they are contemplating a particular purchasing action.

Social Identity: The intention of this variable is to capture the different types and the degree of enhancing capability that the online shopping platforms can motivate their users to participate in the platforms' activities.

3.2 Online Experience and Purchase Intention

According to the S-O-R Model and related literature, there are four variables which can be representatives of the organism (O) part of the S-O-R model and are included in the conceptual model. The descriptions of these variables are as follows.

Affective Involvement: The intention of this variable is to capture the affective or emotional needs of online consumers.

Cognitive Involvement: The intention of this variable is to capture the degree of the online consumers' capabilities in the interpretation of online information that affects their thought about the products.

Perceived Enjoyment: The intention of this variable is to capture online consumers' perceived enjoyment arousing while they are contemplating a particular purchasing situation.

Concentration: The intention of this variable is to capture online consumers' attention arousing while they are contemplating a particular purchasing situation.

Curiosity: The intention of this variable is to capture online consumers' curiosity arousing while they are contemplating a particular purchasing situation.

Finally, the response part (R) of the S-O-R model can be represented by purchase intention and is included in the conceptual model. The intention of this variable is to capture online consumers' willingness to buy product(s) from online shopping platforms. The conceptual model of can be depicted in Fig. 2.

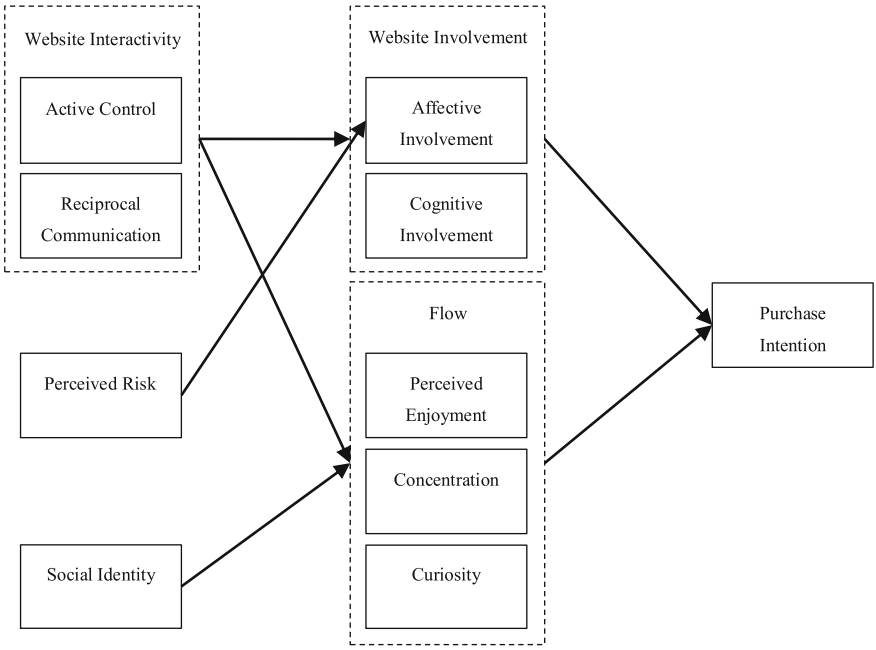

Fig. 2. Proposed conceptual model

4 Conclusion

The proposed conceptual model is aimed to provide more comprehensive model that can be exploited to study the differences of online consumers' behaviors on several online shopping platforms. Additionally, it can be exploited to examine the effects of stimuli on online consumers' behavior and their decision making processes. However, this proposed conceptual model will be tested in further study.

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