

The Effects of Psychological Factors on Online Consumer Behavior

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The topic of online consumer behavior has been examined under various contexts over these years. Although researchers from a variety of business disciplines have made significant progress over the past few years, there are very few studies that directly investigate the relationship between psychology and online consumer behavior. In view of this, this study provides a review of the relevant empirical literature and proposes a research framework. This proposed framework not only provides us with a cohesive view of the relationship between psychology and online consumer behavior, but also serves as a salient guideline for researchers in this area. This study concludes with a research agenda for the study of the relationship between psychology and online consumer behavior.

Keywords - Online consumer behavior, psychology, intention, adoption, continuance

I. INTRODUCTION

Online consumer behavior has become an emerging research area with an increasing number of publications per year. The research articles appear in a variety of journals and conference proceedings in the fields of information systems, marketing, management, and psychology.

A review of online consumer behavior research reveals that the scope of published studies is rather broad. However, there have not been many empirical studies [1] that attempt to establish the relationship between psychological factors and online consumer behavior. In view of this, the objectives of this study are: (1) to provide a systematic and relevant empirical literature review of the relationship between psychology and online consumer behavior, (2) to propose an integrated framework that enhances understanding of the driving psychological factors of online consumer behavior, and (3) to provide directions for future research in this area.

II. METHODOLOGY

Prior literature provides a rich foundation on which to build a research framework for the study of the relationship between psychology and online consumer behavior. As suggested by [2], strong theoretical and conceptual frameworks can be developed through an integration of constructs from different research traditions

and disciplines. In the current study, this study reviews the prior literature of the relationship between psychology and online consumer behavior and analyzes the theories and the underpinning factors.

This study conducted an exhaustive and systematic electronic search using ProQuest, SDOS, SCOPUS, Emerald, SDOL, IEEE Xplore, and other bibliographic sources with pairs of keywords search such as “psychology” and “online consumer behavior” (or “internet shopping”, “online shopping”). The articles in this area were identified from 2000 to 2008. For any study to be included in the analysis, it has to focus primarily on consumer purchasing behavior on the Web.

III. LITERATURE ANALYSIS RESULTS

In this study, psychological factors were mainly classified by [1]. Subsequently, a total of nine studies were found relevant to this study. In these, some psychological variables that affect online consumer behavior were identified. Except for a few variables, most were unique and had only been verified in one study. The seven major categories were (1) attitude toward online shopping, (2) perceived behavioral control, (3) subjective norm, (4) intention, (5) risk aversion, (6) intention to use the internet for information search, and (7) site commitment. The details of these categories are summarized in Table I and Table II.

A. Attitude toward Online Shopping

As indicated in Table II, the attitude toward online shopping factor has been investigated extensively. Of the nine studies that investigated and explored psychological variables, six examined the relationship between attitude toward online shopping and online consumer behavior. In this factor, the dependent variables include purchase intention [3, 4], willingness to buy [5, 6], intention to use the internet for purchasing [7], future shopping intention [8], and actual purchase [6].

B. Perceived Behavioral Control

As shown in Table II, one of the relevant empirical studies concluded that perceived behavioral control had a positive impact on internet shopping [9]. Reference [9] is a longitudinal study of online shopping.

This research was funded by the National Science Council, Taiwan, Republic of China, under contract No. NSC 98-2410-H-032 -038 -MY2.

TABLE I
SUMMARY OF THE STUDY ON PSYCHOLOGICAL VARIABLES

Psychological Variables	Studies
Attitude toward Online Shopping	[3, 4, 5, 6, 7, 8]
Perceived Behavioral Control	[9]
Subjective Norm	[13]
Intention	[9]
Risk Aversion	[5]
Intention to use the Internet for Information Search	[7, 8]
Site Commitment	[10]

C. Subjective Norm

As indicated in Table II, the subjective norm factor has not been verified extensively.

D. Intention

This, along with the intention of an individual, was found to have a positive impact on internet shopping [9]. Therefore, [9] verifies the effect of both perceived behavioral control and intention on online consumer behavior.

E. Risk Aversion

From Table II, we can see one of the studies concluded that risk aversion had a negative impact on willingness to buy [5]. Of seven factors, this factor is special because it focuses on negative impact.

F. Intention to Use the Internet for Information Search

Of all literature reviewed, two focused on intention to use the Internet for purchasing [7, 8]. In this factor, the dependent variables include intention to use the Internet for purchasing [7] and future shopping intention [8].

G. Site Commitment

In addition, Table II also shows that purchase behavior was found to be influenced by site commitment [10]. Reference [10] identifies key factors affecting consumer purchase behavior in an online shopping context.

TABLE II
SUMMARY OF THE EFFECT OF PSYCHOLOGICAL VARIABLES ON ONLINE CONSUMER BEHAVIOR

Psychological Variables	Studies	Findings
Attitude toward Online Shopping	[3, 4, 5, 6, 7, 8]	Significant positive impact was found in all studies.
Perceived Behavioral Control	[9]	Significant positive impact was found.
Subjective Norm	None	None
Intention	[9]	Significant positive impact was found.
Risk Aversion	[5]	Significant negative impact was found.
Intention to use the Internet for Information Search	[7, 8]	Significant positive impact was found in all studies.
Site Commitment	[10]	Significant positive impact was found.

IV. AN INTEGRATED FRAMEWORK FOR THE RELATIONSHIP BETWEEN PSYCHOLOGY AND ONLINE CONSUMER BEHAVIOR

The literature review of this paper revealed that no prior study has attempted to link the three key concepts of intention, adoption, and continuance and investigate the process of online consumer behavior as a whole. By integrating Fishbein’s attitudinal theoretical model [11] and the expectation-confirmation model [12], this study attempts to associate the three elements together and form a base model – Model of Intention, Adoption, and Continuance (MIAC) (as depicted in Fig. 1) for the development framework of the relationship between psychology and online consumer behavior.

The analysis shows that the relationship between psychology and online consumer behavior is still fragmented. In order to capture the important psychological factors explaining online consumer behavior, this study proposes a unifying framework that could eventually guide research in this area.

A. Intention

Purchase intention [3, 4], willingness to buy [5, 6], intention to use the internet for purchasing [7], and future shopping intention [8] have been investigated in the study of the relationship between psychology and online consumer behavior about intention. The independent psychological variables of this part include attitude toward online shopping, risk aversion, and intention to use the internet for information search.

B. Adoption

Moreover, this study observed some empirical studies that proposed and tested factors, such as internet shopping [9], purchase behavior [10], and actual purchase

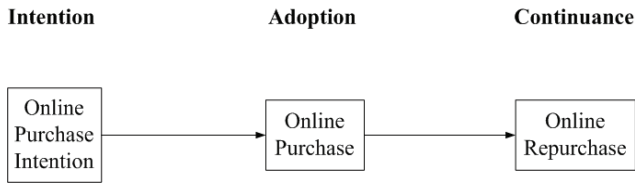


Fig. 1. Model of Intention, Adoption, and Continuance (MIAC).

[6], affecting online consumer behavior about adoption. In this stage, the independent psychological variables include attitude toward online shopping, perceived behavioral control, intention, and site commitment.

C. Continuance

After examining the relevant empirical literature, this study found that almost no study has explored the effect of psychological factors on online consumer behavior about continuance. This may be where the majority of studies neglected. Therefore, future researchers can further explore the theme.

These psychological factors were integrated into the base model (MIAC) to form a framework (as shown in Fig. 2) for the study of the relationship between psychology and online consumer behavior. This proposed framework not only provides us with a cohesive view of online consumer behavior, but also serves as a salient guidance for researchers in this research area.

V. DISCUSSION

Online consumer behavior is rapidly changing the way people do business all over the world. In the business-to-consumer segment, sales through the web have been increasing dramatically over the last few years. Customers, not only those from well-developed countries but also those from developing countries, are getting used to the new shopping channel. Understanding psychological factors that affect intention, adoption and repurchase are important for researchers and practitioners alike.

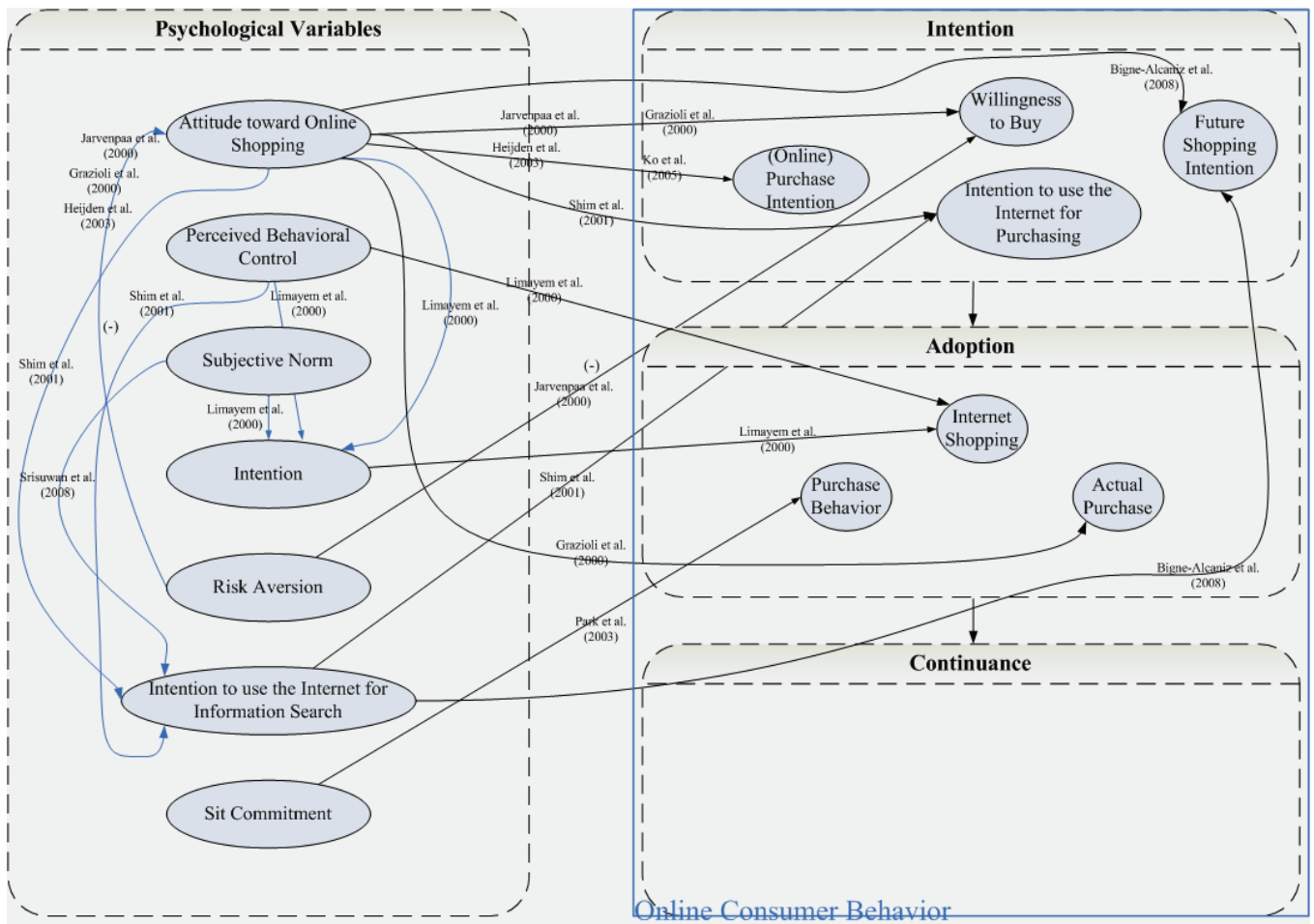


Fig. 2. Framework of psychology and online consumer behavior.

The analysis of nine research articles on psychological factors and online consumer behavior has showed that this research area has received attention over the past few years. Most of the studies have borrowed theories from consumer behavior research and over emphasized the psychological factors affecting a consumer's intention and adoption of online shopping while ignoring the psychological factors leading to continuance. The review illustrates the need for a unifying framework that can guide research in this important area. Consequently, the proposed model (MIAC) shows how seven important psychological factors (attitude toward online shopping, perceived behavioral control, subjective norm, intention, risk aversion, intention to use the internet for information search, and site commitment) are related to three key elements (intention, adoption, and continuance).

VI. CONCLUSION

The purpose of this study was to conduct a thorough analysis of the literature in the area of the relationship between psychology and online consumer behavior. A research framework was suggested to better understand existing studies and to highlight under-researched areas. The findings of this study show that the literature on the relationship between psychology and online consumer behavior is rather fragmented. Most studies investigated intention and adoption of online shopping while continuance behavior (repurchase) is seriously under-researched. Moreover, the analysis of this study helped identifying several fruitful directions for future research.

1. Future research could use the suggested intention, adoption and continuance (MIAC) framework as a basis to empirically explore the psychological factors affecting the online consumer purchasing process.

2. This study invites researchers to pay more attention to the under-researched areas highlighted by the analysis. For instance, researchers can explore new psychological variables and empirically test how these factors affect intention, adoption, and continuance.

3. As shown in Fig. 2, some psychological factors (i.e. attitude toward online shopping and perceived behavioral control) not only influence online consumer behavior, but also affect other psychological factors [3, 5, 6, 7, 9, 13].

4. Similarly, in Fig. 2, this study infers that some psychological factors (i.e. attitude toward online shopping, intention, and intention to use the internet for information search) may serve as mediators between psychological factors and online consumer behavior.

ACKNOWLEDGMENT

The authors appreciate comments and suggestions from the referees.

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