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EXECUTIVE SUMMARY

Empirical research on online consumer theory has been examined under diverse contexts over the years. Although researchers from a variety of business disciplines have made significant progress over the past few years, the scope of these studies is rather broad, the studies appear relatively fragmented and no unifying theoretical framework is found in this area. In view of this, this study attempts to provide an exhaustive review of prior theoretical literatere and to provide an integrative model of online consumer behavior. This framework not only provides us with a cohesive view of online consumer behavior, but also serves as a salient guideline for researchers in this area. The paper is concluded with a research agenda for future studies.

Keywords: expectation-confirmation theory; IS adoption; IS continuance; online consumer behavior; theory of planned behavior

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 these articles indicates that researchers mostly draw theories from classical consumer behavior research, such as behavioral learning (Skinner, 1938), personality research (Folkes, 1988), information processing (Bettman, 1979), and attitude models (Fishbein, 1975).

A close examination of the literature in this area reveals that most of the components of consumer behavior theory have been applied to the study of online consumer behavior. However, the application is not as straightforward as simply borrowing the
components and applying them. There are still significant differences between off-line and online consumer behavior that warrant a distinguishing conceptualization. For example, Vijayasarathy (2001) integrated the Web-specific factors (online shopping aid) into the theory of reasoned action (TRA) to better explain consumer online shopping behavior. Song and Zahedi (2001) built on the model of the theory of planned behavior (TPB) and examined the effects of Web site design on the adoption of Internet shopping.

In addition, a review of online consumer research finds that the scope of published studies is rather broad, the studies appear relatively fragmented with contradictory results, and only very few prior studies (e.g., Jarvenpaa & Todd, 1996; Koufaris et al., 2001) have attempted to systematically review and develop a framework for the study of this important research area. In this vein, the objectives of this study are (1) to provide a systematic and exhaustive review of online consumer behavior research, (2) to identify important constructs that are specific to the context of online purchasing, (3) to propose an integrated framework that enhances our understanding of the underlying driving factors of online consumer behavior, and (4) to provide directions for future research in this area.

The paper is organized as follows. The second section outlines the research approach, and the third section describes the results and the literature analysis. The fourth section presents an integrated framework for the study of online consumer behavior. Finally, the fifth section addresses the discussion, and the sixth section concludes the paper by considering the future research agenda in this area.

A STRUCTURED RESEARCH APPROACH

Prior literature provides us with a rich foundation on which to build a research framework for the study of online consumer behavior. As suggested in Douglas et al. (1994), strong theoretical and conceptual frameworks can be developed through an integration of constructs from different research traditions and disciplines. In the current study, we review the prior literature of online consumer behavior and analyze the theories and the underpinning factors.

A systematic and structured approach in search and review is strongly recommended in writing sound IS literature reviews (Webster & Watson, 2002). In this study, we conducted an exhaustive and systematic electronic search using ProQuest, Social Science Citation Index, and IEEE Xplore. Moreover, we conducted a literature search in the EC-specific journals including the International Journal of Electronic Commerce and Internet Research: Electronic Networking Applications and Policy. In addition to the search for referred journal articles, we included three IS-related conference proceedings (AMCIS, HICSS, ICIS) in our literature search and analysis.

The literature search was based on keywords such as online shopping, Internet shopping, and online consumer purchasing behavior. Each article was reviewed and screened in order to eliminate the articles that were not pertinent to the current focus. A total of 355 articles in the area of online consumer behavior was identified from 1994 to June 2002. For any study to be included in our analysis, it had to focus primarily on consumer purchasing behavior on the Web. Electronic copies of most articles were obtained from digital libraries and online databases.
LITERATURE ANALYSIS RESULTS

The 355 articles were analyzed and classified in terms of publication year, title, and the underlying theory/framework. We believe that this clarification provides fruitful insights about online consumer scholars. In particular, this analysis helps researchers discover deficiencies and identify potential unexplored research opportunities in this area.

Historical Overview

The importance of an emerging research area is reflected in the increasing number of publications per year. The number of articles in the online consumer behavior literature has risen dramatically in the past four years, more than 120 articles being published in 2001 (see Figure 1).

Publications

Research on online consumer behavior appears in a variety of journals and conference proceedings in the fields of Information Systems, Marketing, Management, and Psychology. In Information Systems it appears that online consumer behavior research is not yet part of the mainstream.

As is typical for an emerging research area, most articles appear in new, innovative journals such as the International Review of Retail, Distribution and Consumer Research, International Journal of Electronic Commerce, and Internet Research: Electronic Networking Applications and Policy. We expect that as this research area matures, articles will begin to find their way into more established journals such as MIS Quarterly and Information Systems Research. Moreover, it is interesting to find that many non-IS journals, such as the International Review of Retail and Distribution and Consumer Research, rank the highest in terms of number of articles published in this area. This illustrates the importance of this research area to MIS and related disciplines. Table 1 shows the ranking of the journals that have published articles on online consumer behavior.

Underlying Theory and Framework

As part of our analysis, we identified the theories that were used by the authors of the 355 papers surveyed. Findings show that the Theory of Reasoned Action (TRA) and its family theories, including the Technology Acceptance Model (TAM) and the
Table 1. Number of online consumer behavior research studies in journals

<table>
<thead>
<tr>
<th>Journals</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>The International Review of Retail, Distribution and Consumer Research</td>
<td>24</td>
</tr>
<tr>
<td>International Journal of Electronic Commerce</td>
<td>18</td>
</tr>
<tr>
<td>Internet Research: Electronic Networking Applications and Policy</td>
<td>11</td>
</tr>
<tr>
<td>Communications of the ACM</td>
<td>8</td>
</tr>
<tr>
<td>Information &amp; Management</td>
<td>7</td>
</tr>
<tr>
<td>Journal of Marketing Communications</td>
<td>7</td>
</tr>
<tr>
<td>Electronic Markets</td>
<td>6</td>
</tr>
<tr>
<td>Journal of Marketing Practice: Applied Marketing Science</td>
<td>6</td>
</tr>
<tr>
<td>Quarterly Journal of Electronic Commerce</td>
<td>5</td>
</tr>
<tr>
<td>Electronic Commerce Research</td>
<td>5</td>
</tr>
<tr>
<td>Business Strategy Review</td>
<td>7</td>
</tr>
<tr>
<td>Decision Support Systems</td>
<td>7</td>
</tr>
<tr>
<td>Journal of Business Research</td>
<td>7</td>
</tr>
<tr>
<td>Journal of Computer Information Systems</td>
<td>7</td>
</tr>
<tr>
<td>Journal of Retailing</td>
<td>7</td>
</tr>
<tr>
<td>Marketing Management</td>
<td>7</td>
</tr>
<tr>
<td>IEEE Transactions on Systems, Man and Cybernetics, Part A</td>
<td>7</td>
</tr>
<tr>
<td>International Journal of Human-Computer Studies</td>
<td>3</td>
</tr>
<tr>
<td>Management of Engineering and Technology</td>
<td>3</td>
</tr>
<tr>
<td>MIT Sloan Management Review</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Consumer Marketing</td>
<td>3</td>
</tr>
<tr>
<td>California Management Review</td>
<td>2</td>
</tr>
<tr>
<td>e-Service Journal</td>
<td>2</td>
</tr>
<tr>
<td>International Journal of Retail &amp; Distribution Management</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Advertising Research</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Industrial Economics</td>
<td>2</td>
</tr>
<tr>
<td>Management Decision</td>
<td>2</td>
</tr>
<tr>
<td>Marketing Science</td>
<td>2</td>
</tr>
<tr>
<td>Psychology &amp; Marketing</td>
<td>2</td>
</tr>
<tr>
<td>International Journal of Information Management</td>
<td>2</td>
</tr>
<tr>
<td>International Journal of Service Industry Management</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Computer-Mediated Communication</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2. References of online consumer behavior research

<table>
<thead>
<tr>
<th>Theory</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation – Confirmation Theory</td>
<td>[7] [8] [57]</td>
</tr>
<tr>
<td>Innovation Diffusion Theory</td>
<td>[7] [8] [36] [88] [99] [101]</td>
</tr>
<tr>
<td>Technology Acceptance Model</td>
<td>[6] [7] [8] [13] [18] [43] [56] [66] [75] [77] [88] [89]</td>
</tr>
<tr>
<td>Theory of Planned Behavior</td>
<td>[6] [7] [8] [20] [51] [56] [75] [76] [89] [100] [104]</td>
</tr>
<tr>
<td>Theory of Reasoned Action</td>
<td>[43] [51] [52] [53] [56] [60] [76] [100] [110] [111]</td>
</tr>
</tbody>
</table>

Theory of Planned Behavior (TPB), are the dominant theories in this area. Expectation- Confirmation Theory (ECT) and Innovation Diffusion Theory (IDT) also have been repeatedly tested in the study of online consumer behavior. Table 2 lists the five most frequently used theories and their corresponding references.

The findings show that most authors depend heavily on theories from the TRA family (TPB, TAM, and TRA), while other useful theories, such as the flow theory, are ignored. Researchers, therefore, should try to explore new theories and frameworks and investigate online consumer behavior from different perspectives and angles.

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AN INTEGRATED FRAMEWORK FOR THE STUDY OF ONLINE CONSUMER BEHAVIOR

The prevalence of the Internet has aroused enormous interest in the study of consumer-based electronic commerce in recent years. In particular, the focus of prior studies was on investigating factors affecting the intention and adoption of consumer online purchase.

Early studies in online consumer behavior largely sought to explore how consumers adopt and use online purchase. Specifically, the emphasis was on the antecedents of consumer online purchasing intention and adoption. Companies, however, have started to realize that, in the digital economy, competitors are just a click away. Initial adoption by consumers is only the first step toward overall success, and companies that succeed in their e-business initiatives are adept at creating and maintaining a long-term sustainable relationship with loyal customers. Thus, research in the consumer continuance behavior (repurchase) becomes increasingly salient.

Online Consumer Behavior: Intention, Adoption, and Continuance

Our literature review 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 purchase as a whole.

Fishbein’s Attitudinal Model

Fishbein’s attitudinal model has been widely used in the marketing context (Lilien et al., 1992), and this paradigm provides researchers with a useful lens for examining the factors explaining consumer pur-

chasing intention and adoption. According to this model, behavior is predominantly determined by intention. Other factors like attitudes, subjective norms, and perceived behavioral control also are shown to be related to an appropriate set of salient behavioral, normative, and control beliefs about the behavior. However, Fishbein’s model stops at the adoption level and does not capture other important factors that explain and predict consumer continuance behavior (repurchase).

Expectation-Confirmation Model

The expectation-confirmation model (Oliver, 1980), on the other hand, focuses on the post-purchase behavior. It is a widely used model in the consumer behavior literature, particularly in explaining consumer satisfaction and repeat purchase. Satisfaction is the central notion of this model, which is formed by the gap between expectation and perceived performance. The expectation-confirmation theory suggests that if the perceived performance meets one’s expectation, confirmation is formed, and consumers are satisfied. Bhattacherjee (2001b) stated that satisfied users are more likely to continue the IS use.

Determinants of Online Consumer Behavior

Existing studies on the determinants of online consumer behavior can be separated into five major domain areas, including individual/consumer characteristics, environmental influences, product/service characteristics, medium characteristics, and online merchant and intermediary characteristics. Table 3 summarizes the five domain areas and highlights the key constructs used in explaining online consumer behavior.

The impact of individual/consumer characteristics on the intention and adop-
### Table 3. Determinants of online consumer behavior

<table>
<thead>
<tr>
<th>Domain Area</th>
<th>Description</th>
<th>Key Constructs</th>
<th>Illustrative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual/Consumer Characteristics</td>
<td>Referring to internal individual factors and behavioral characteristics</td>
<td>Attitude, Demographics, Flow, Motivation, Perceived Risk, Personal Innovativeness, Satisfaction, Trust</td>
<td>[6][13][51][52][75][76] [3][12][59][92][114][118] [63][85][119][120] [18][83][98][104][110] [9][43][51][52][67][81] [36][38][75][76][93] [7][8][44][65][66] [43][51][52][65][89][97]</td>
</tr>
<tr>
<td>Environmental Influences</td>
<td>Referring to the structural influences, including market-related issues (uncertainty, competition, and concentration), national and international issues (legal structure, trade restrictions, and culture).</td>
<td>Exposure, Perceived Behavioral Control, Subjective Norm</td>
<td>[59][60][88][103] [6][9][63][75][76][103] [6][56][75][76][88][100]</td>
</tr>
<tr>
<td>Product/Service Characteristics</td>
<td>Referring to knowledge about the product, product type, frequency of purchase, tangibility, and product quality.</td>
<td>Price, Product Knowledge, Product Type</td>
<td>[50][73][87][98][104] [9][40][67][69][94] [9][44][73][92][118]</td>
</tr>
<tr>
<td>Medium Characteristics</td>
<td>Referring to both traditional IS attributes (ease of use, quality, security, and reliability) and Web-specific factors (navigation, interface, and network speed).</td>
<td>Convenience, Ease of Use, Information Quality, Navigation, Security, Shopping Aids, Usefulness</td>
<td>[18][59][67][69][93] [13][18][43][72][87][88] [44][59][65][87][19][120] [13][18][67][72][87] [65][72][73][87][98] [42][72][111][112] [6][13][18][43][88]</td>
</tr>
<tr>
<td>Merchants and Intermediate Characteristics</td>
<td>Referring to the key attributes/features of the online stores.</td>
<td>Brand, Privacy and Security Control, Service Quality</td>
<td>[43][51][52][97][115] [59][67][69][87][95] [33][78][97][104][109]</td>
</tr>
</tbody>
</table>

Environmental factors refer to the structural influences from the electronic commerce (EC) environment, including market-related issues (uncertainty, competition, and concentration), national and international issues (legal structure, trade restrictions, and culture). According to Markus and Soh (2002), structural influences are “physical, social, and economic arrangements that shape EC business models and influence individual and organizational use of the Internet.” In the context of online consumer behavior, several researchers (e.g., Limayem & Khalifa, 2000;
Limayem et al., 2000) provided evidence for the significant influence of subjective norm and perceived behavioral control on online consumer purchasing intention and adoption.

Jarvenpaa and Todd (1996) argue that price, quality, and product type are the three key elements in shaping consumers’ perceptions. In suggested fragmentation, product/service characteristics mainly refer to knowledge about the product, product type, frequency of purchase, tangibility, differentiation, and price. Bobbitt and Dabholkar (2001) examined the impact of product knowledge and product type on online purchasing intention and adoption. Liao and Cheung (2001) and Jarvenpaa and Todd (1996) postulated that price has a significant impact on online purchasing intention and online purchasing adoption, respectively.

Characteristics of systems have been studied extensively in the IS literature. Traditional IS attributes, such as ease of use, quality, security, and reliability, are included in the study of electronic commerce systems. Additionally, Web-specific factors, such as ease of navigation, interface, and network speed, also are considered in the current study. Chau et al. (2000) examined the effects of presentation mode, search engines, and navigation structure of product items on the adoption of Internet shopping.

Spiller and Lohse (1998) have suggested a broad classification of Internet retail stores as well as the key attributes and features of online stores. These studies provided us with a better insight into the study of online merchant and intermediary characteristics. In the current study, we included factors like service quality (Liu & Arnett, 1999; Ruyter et al., 2001), privacy, and security control (Lee, 2002; Lee & Park, 2001), brand/reputation (Heijden et al., 2001; Jarvenpaa, 1999; Jarvenpaa et al., 2000), delivery/logistic (Goldsmith & Bridges, 2000; Liang & Huang, 1998), after sales services (Lee, 2002), and incentive (Bhattacherjee, 2001a) in our framework of online consumer behavior.

An Integrative Model of Online Consumer Behavior

Intention, adoption, and continuance are the key building blocks of our proposed framework of online consumer behavior. The five domain areas were integrated into the key constructs (intention, adoption, and continuance) to form a framework (see Figure 2) for the study of 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.

In the following section, we implicitly investigate the three key elements by mapping prior literature into the five domains. For example, the impact of age on intention was investigated by one study, and the impact of age on adoption was investigated by seven studies. However, no study explored the link between age and continuance.

Consumer Online Purchase Intention

Based on the theory of reasoned action and other related theories in this research area, the key factors of attitude, subjective norm, and perceived behavior control are postulated largely as the determinants of consumer online purchase intention (Bhattacherjee, 2000; Keen et al., 2000; Limayem et al., 2000). Similarly, perceived ease of use and perceived usefulness stemming from technology acceptance model (TAM), have also received enor-
mous attention (Chau et al., 2000; Lin & Lu, 2000).

Trust and perceived risk (Jarvenpaa et al., 2000; Pavlou, 2001; Ruyter et al., 2001) have been investigated widely in the study of consumer online purchase intention. Some recent studies (Cheung & Lee, 2001, 2001a; Lee & Turban, 2001) focused primarily on the trust formation process in the context of Internet shopping. Product/service characteristics, the key research topics, are product type (Bobbitt & Dabholkar, 2001; Sohn, 1999) and price (Degeratu et al., 2000; Liang & Lai, 2001). For instance, Sohn (1999) argued that products like CDs, books, or canned food, which do not require a physical examination before being purchased, are easier to sell on the Internet. Brand/reputation (Jarvenpaa et al., 2000; Ruyter et al., 2001) and service quality (Ruyter et al., 2001; Song & Zahedi, 2001) are also important in affecting online purchase intentions.

**Consumer Online Purchase (Adoption)**

As is the case for consumer online purchase intention, researchers (Bobbitt & Dabholkar, 2001; Chau et al., 2000; Goldsmith & Bridges, 2000; Koufaris et al., 2001; Limayem et al., 2000; Raijjas & Tuunainen, 2001; Vellido et al., 2000) extensively employed attitudinal theoretical models in the study of consumer online purchase and thoroughly investigated the antecedent factors like intention, attitude, subjective norm, perceived behavior control, ease of use, and perceived usefulness.

Moreover, we observed a significant number of empirical studies that proposed...
and tested factors affecting consumer online purchase. Compared to the study of intention, the studies of consumer online purchase are quite fragmented and widely dispersed in the five main categories. For examples, demographics (Bellman et al., 1999; Bhatnagar et al., 2000; Li et al., 1999; Phau & Poon, 2000; Ramaswami et al., 2000) have been considered widely in the study of online consumer behavior. Researchers primarily investigated factors such as age, gender, income, education, and the like in determining consumer online purchase. In terms of medium characteristics, a number of Web-specific features, including navigation (Chau et al., 2000; Liang & Lai, 2002), interface (Schoenbachler & Gordon, 2002), security (Goldsmith, 2001; Kim & Lim, 2001), accessibility (Chen & Sukpanich, 1998; Lee, 2002), social presence (Kumar & Benbasat, 2001), and online shopping aid (Vijayasarathy, 2001) have been investigated widely in these prior studies. In terms of merchant and intermediary characteristics, factors like privacy and security protection (Kim & Lim, 2001; Lee, 2002) and brand/reputation (Ruyter et al., 2001; Ward & Lee, 2000) are studied frequently in consumer online purchase adoption.

Consumer Online Repurchase (Continuance)

Research on continuance is in its infancy. Bhattacherjee (2001a) is one of the very first attempts to explain consumer online repurchasing behavior. His proposed model was formulated on the basis of expectation and confirmation theory (ECT) and postulated satisfaction, confirmation, and loyalty incentives as salient factors affecting consumer online repurchasing.

Our literature review and analysis revealed that prior research on consumer online repurchase placed more emphasis on the impact of psychological factors. For instance, considerable attention has been given to the study of trust (Fung & Lee, 1999; Lee et al., 2000) and satisfaction formation (Khalifa & Liu, 2001) in the context of consumer-based electronic commerce. Very few studies, however, have attempted to investigate the impact of product/service characteristics, medium characteristics, and merchant and intermediary characteristics on consumer online repurchasing. Liang and Lai’s (2002) was one recent study that explored the impact of Web page design, such as navigation, security, search attribute, and shopping aids. Similarly, Gofen and Devine (2001) focused on merchant characteristics and investigated the effect of service quality on consumer online purchase continuance using SERVQUAL.

DISCUSSIONS

Electronic commerce 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 the factors that affect intention, adoption, and repurchase are important for researchers and practitioners alike.

Our analysis of more than 300 research articles on online consumer behavior showed that this research area has received tremendous attention over the past few years. Most of the studies have borrowed theories from consumer behavior research and have over emphasized the factors affecting a consumer’s intention and adoption of online shopping, while ignoring the factors leading to repurchase.
Our review illustrates the need for a unifying framework that can guide research in this important area. Consequently, the proposed model shows how five important factors (consumer characteristics, environment influences, product/service characteristics, medium characteristics, and merchant and intermediary characteristics) are related to three key elements (intention, adoption, repurchase).

**Antecedents of Intention, Adoption, and Continuance**

Our findings confirm that online consumer behavior is still immature and exhibits an important research potential. The impact of several constructs of TPB, TRA, and TAM, such as attitude, subjective norms, and perceived behavioral control, has been studied widely, while other important factors have been ignored. As illustrated in Figure 2, factors related to consumer characteristics, like demographics, personality, value, lifestyle, consumer resources, and knowledge, were not explored. In addition, factors related to the medium characteristics (network availability, reliability, stability, speed, externalities, information quality, shopping aids medium richness, and convenience) and environmental influences (culture and reference groups) have not been investigated fully in prior studies.

In terms of adoption, we found that consumer characteristics and medium characteristics are the key categories that most prior research explored. For example, characteristics such as demographics, lifestyle, motivation, behavioral characteristics, knowledge, attitude, intention, personal innovativeness, experience, trust, perceived risk, satisfaction, involvement, and flow are well-tested and extensively studied. In addition, factors related to merchant and intermediary characteristics, including Web site design, network reliability, search, network speed, usefulness, information quality, search attribute, shopping aids, channel, convenience, and enjoyableness are frequently explored.

Compared to intention and adoption, continuance is an under-researched area. The impact of factors like trust and satisfaction in the domain of consumer characteristics, ease of use, usefulness, and search attribute in the domain of medium characteristics, and delivery in the domain of merchant and intermediary characteristics on continuance are yet to be investigated.

**CONCLUSION AND AGENDA FOR FUTURE RESEARCH**

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

1. Future research could use our suggested framework as a basis to explore empirically the factors affecting the online consumer purchasing process.
2. Our findings show that existing studies focus on the factors affecting intention of buying from the Web. They do that by using TRA and its related theories. We therefore encourage researchers to explore theories from different disci-
plines and to use them to study consumers' adoption and continuity of online shopping. For example, Csikszentmihalyi (1975) introduced the concept of flow, which he defined as "the holistic experience that people feel when they act with total involvement." Some researchers (Csikszentmihalyi, 1990; Ghani & Deshpande, 1994; Trevino & Webster, 1992) advocated the use of the concept of flow to better understand purchase and repurchase from the Web (Chen et al., 1998; Rettie, 2001). We therefore believe flow theory is useful in explaining consumers' continuity behavior.

3. We invite researchers to pay more attention to the under-researched areas highlighted by our analysis. For instance, researchers can explore new variables in the five categories (consumer characteristics, environmental influences, product characteristics, medium characteristics, and merchant and intermediary characteristics) and empirically test how these factors affect intention, adoption, and continuity.

4. Moe and Fader (2000) suggest that both planned and unplanned visit/purchase will affect future purchase decisions. However, our analysis of more than 300 research articles showed that there are very few studies examining unplanned purchase. Koufaris (2002) is the first to explore the relationship between unplanned and online consumer behavior. Unplanned behavior (i.e., browsing visit without specific intention to buy), in fact, is stimuli-driven and occasionally results in unplanned purchase (Janiszewski, 1998; Jarboe & McDaniel, 1987). We believe that the Web provides several types of stimuli, and we urge researchers to examine the process of online unplanned purchase.

5. Classic consumer behavioral theories provide researchers with a good starting point in understanding online consumer behavior. However, we should take the IT component into serious consideration when doing research in online consumer behavior. Instead of blindly borrowing theories and models from other disciplines, we as IS researchers should work out our own behavioral models, declaring what is unique and specific to the context of consumer-based electronic commerce.

Finally, it is important to note that classical theories such as TRA and related theories constitute only a starting point in understanding online consumer behavior. Researchers should carefully consider the artifact and its impact on online consumer behavior. Therefore, we believe that the time has come for IS researchers to start building their own theories instead of applying theories from other disciplines.

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