

The Role of Risk Perception, Trust, Innovativeness and Emotion in Developing Consumer's Satisfaction in Electronic Mediated Environment (EME)

Completed Research Paper

Hua Dai

University of Wisconsin–La Crosse
La Crosse, WI 54601, USA
hdai@uwlax.edu

Xin Luo

The University of New Mexico
Albuquerque, NM 87131, USA
luo@mgt.unm.edu

Abstract

Services sector has been mushrooming over the last decades and now dominates economic activity in most industrialized economies. Drawing on an array of interdisciplinary theoretical underpinnings stemming from trust, risk, trying, emotion, and consumer satisfaction, this paper proposes an integrated model to examine the causal relationships amid these constructs. The analysis of data from 415 Chinese consumers reveals that consumer innovativeness and emotions are very significant antecedents of risk perception of service, trust, service quality, and perceived benefits, which ultimately lead to consumer satisfaction of such services in EME. This comprehensive framework contributes to a foundation for future studies to investigate the roles of risk perception and trust vis-à-vis innovativeness and emotion in such an emerging IT artifact as e-services in EME.

Keywords: Perceived risk, trust, innovativeness, emotion, consumer satisfaction

Introduction

In most parts of the globe, the services section has been mushrooming over the last decades and now dominates economic activity in most industrialized economies. According to an IBM survey, the services industry accounted for 77.8% of the U.S. gross domestic product in 2005 (IBM, 2007). In essence, the current list of Fortune 500 companies encompasses more service companies than in previous decades. Coupled with the rapidly mounting scale of the services section, technological advancements of information technology (IT) and the Internet are continuously evolving to further avail contemporary organizations to cater to their constituents through the value-added electronic services (e-services) channel. The emergence of electronic commerce mirrors the revolutionary role of IT vis-à-vis e-services or products, as IT stimulates the arrival of e-service economy across the interconnected networks. As organizations are increasingly dependent on IT to seek business sustainability and profitability, the role of information systems (IS) has assumed vital importance in Electronic Mediated Environment (EME) by means of more efficiently and effectively facilitating the communication and service delivery among different organizational constituents (i.e., end users/consumers, suppliers).

Concurrently, recent academic research suggests that service quality and benefits and flexibility derived from EME can aid individual consumers in reaching a favorable and satisfactory decision. In marketing literature, it has been indicated that there is a steady increase in consumer demand for services quality and benefits (Berry et al., 2002; Meuter et al., 2003). In the IS paradigm, the services in EME refers to *any kind of services that incorporate service convenience via electronic devices where the consumer interacts with an appropriate user interface for service consumption in an EME such as Web site, mobile phone, PDF, iPod, Virtual World Environment, etc. in order to gain a consumption experience and pursue desired benefits preferably on a long term basis* (Dai and Salam, 2010; Dai, Salam, and King, 2008). While this conceptual definition advances our understanding of the services convenience embedded in the EME, we presuppose that further exploratory investigations are warranted because EME inevitably confronts such challenges as consumers' trust in the EME arena and their perception of risk associated with the open, mobile communication medium. We thus argue that, in addition to comparatively positive or neutral aspects of EME (e.g. Service quality and benefits), trust and risk perceptions may exert an influence on the degree to which the consumers are satisfied with such e-services in the EME. Furthermore, organizations are keen on developing a long term, satisfactory exchange relationship by providing services through the EME. As such, it is of vital importance for them to fathom the consumers' personal cognitive and emotional preferences. Given the fact that consumers may carry different traits or perspectives toward the EME, it is therefore necessary to shed light on such additional theoretical aspects as personal innovativeness and emotion to more effusively gauge their effects on the services exchange process.

Drawing on an array of interdisciplinary theoretical underpinnings stemming from trying, emotion, trust, risk, and consumer satisfaction, this paper proposes an integrated model to examine the causal relationships amid these constructs. In essence, this paper allocates effort to advancing this line of research by incorporating innovativeness and emotion into the risk vs. benefit valence model. Diverging from prior studies that have tended to analyze the relationships between trust and risk perception vs. behavioral intention, this study suggests that, in an environment where uncertainty and unforeseeable risk might reside, innovativeness and emotion affect the cultivation of consumers' trust and risk perception in regard to their satisfaction on e-services. This paper contributes to the current literature in several significant ways. Our study endeavors to fill a void by incorporating innovativeness and emotion into the risk vs. benefit valence model. We conjecture that consumers' personal innovativeness (i.e., trying) could help develop their trust and service quality, promote the benefit awareness, as well as circumvent the risk perception. In the same vein, consumers' positive emotion may also exert similar effects on the associated constructs. This comprehensive framework contributes to a foundation for future studies to investigate the roles of risk perception and trust vis-à-vis innovativeness and emotion in such an emerging IT artifact as e-services in EME. In an effort to pragmatically contribute to EME practitioners, this study helps accumulate systematic knowledge on consumers so that strategic decisions can be reached by organizations to further appeal to them in a bid to seek a long term exchange relationship.

The paper unfolds as follows. The next section articulates a theoretical foundation that links innovativeness, emotion, risk perceptions, trust, service quality, and benefits perception to satisfaction.

The third section describes the research model and hypotheses. The fourth section discusses the methodology and data analysis techniques used to validate the scales and test the model. The fifth section presents the results. The paper concludes with a discussion of implications for theory and practice.

Theoretical Background

Benefit-Risk Valence Model

The benefit-risk valence model was developed by Peter and Tarpey (1975) to understand consumer purchase behavior. Consumer perceived benefits represent customers' overall assessment of service utility "based on a perception of what is received and what is given" (Zeithmal 1988, p. 14). Empirical evidence illustrates that the value assessment directly predicts consumer satisfaction and behavior of continuing to use a service (Brady et al. 2005; Kleijnen et al. 2007). The primary benefits of online services are to provide customers convenient purchasing experience and a large exchange of information in fitting customers' personal service needs (Pavlou and Fygenon 2006). Dai and Salam (2010) also demonstrated that consumer perceived value of service in terms of convenience and consumption experience in online service is a significant factor in developing long term exchange relationships between consumers and service providers. On the other side, consumer perceived risks relate to consumer assessment of a potential loss or social uncertainty with an online provider since "the behavior of an e-vendor cannot be guaranteed or monitored" (Gefen et al, 2003, pg.52). Consumers expect a guarantee of integrity on every aspect of an e-commerce transaction (Chellapa, 2001). IS literature have identified that consumers' buying behaviors and their participation in online exchange relationship are significantly affected by risk perception since consumer worried about high possibilities of loss in online transaction (Rousseau et al, 1998; Pavlou et al, 2007). With the advancement of mobile device and wireless application, mobile online services are exposed to greater danger of insecurity and potential loss since hackers may intercept anywhere in the free air (Lu et al, 2003). Thus, there are new risks particular to use of mobile technology mediated service that can influence consumer satisfaction and following action in EME (Kim et al, 2009). Therefore, consumer perceived risks and benefits are two fundamental determinants of consumer satisfactory experience in using service in EME.

Trust and Risk Model

The trust-risk model has been widely used in marketing and Information systems literature to explain consumer behavior in an exchange relationship with business vendor in an uncertain environment (Jarvenppa and Tractinsky, 1999; Malhotra et al, 2004; Wulf et al. 2001). Trust belief has long been considered as critical antecedent of consumers' acceptance of online purchases since a service provider in EME inseparably embodies an interaction between consumers and service provider (Gefen and Straub, 2003; Malhotra, 2004). Trust is defined by Mayer et al (1995) as the willingness to be vulnerable to the actions of another person or people. In the context of eCommerce, trust is even more important because of the less verifiable and less controllable business environment of the web (Gefen, 2002). On a flip side, consumer perceived risks have gained wide discussion and led to various definitions. Bauer (1960) provided the first definition with two major components: uncertainty and the serious consequences of the purchase. Later, Dowling and Staelin (1994) defined risk belief as the consumer expectation that a high potential for loss is associated with the release of personal information to the firm. A large portion of the prior studies of the trust-risk theory focused on the antecedents of trust and its impacts on consumers' intention/wiliness to purchase online context. For example, Malhotra et al (2004) developed an empirical study to investigate both consumer trust belief and risk belief and their influences on consumer's behavioral intention to e-Commerce. "In essence, the trust-risk model holds that in the situation in which potential risks are present, trust play an important role in determining one's (Trusting/risk taking) behavior" (Malhotra et al, 2004, pg.341).

Theory of Trying & Personal Innovativeness

In the domain of marketing, it has been noted that decision maker believes that either internal or external impediments could thwart the performance of the use of services. Based on psychological and consumer behavior literatures, Bagozzi and Warshaw (1990) proposed the Theory of Trying (TOT) to explain the process of trying to perform a behavior or to achieve a goal. Expanding Theory of Planned Behavior and the Theory of Goal Pursuit, TOT implies that intention reflects a state of mind that drives one to take action as opposed to trying which reflects action and even some parts of actual behavior (Ahuja and Thatcher 2005; Bagozzi and Warshaw 1990). Trying is referred to as a broad term incorporating volitional, motivational, and cognitive elements. It is defined as doing all the necessary pre-behaviors and otherwise satisfying all necessary conditions that are within voluntary control for the performance of the subjective behavior. Bagozzi (1993) further indicted that trying involves instrumental acts and physical effort. Mathur (1998) posited that all such preliminary acts for purchasing a house as visiting and inspecting the property, negotiating the price, signing a contract and applying for a mortgage loan can be grouped within the domain of trying. The TOT provides a theoretical foundation for explaining user's goal-oriented intention to adopt services since it is able to implement goal-directed behaviors effectively and plays a key, multifaceted role. In extant IS literature relating to IT adoption and use, trying to innovate with IT has been suggested be a particularly suitable volitional post-adoption measure (Ahuja and Thatcher, 2005).

The marketing-based theory further galvanizes the birth of personal innovativeness which is rooted in innovation diffusion research in the IS paradigm. Agarwal and Prasad (1998) considered the construct of personal innovativeness with IT (PIIT) as similar to a psychological and cognitive force that propels an individual's willingness or interest in seeking out novel stimuli. In the arena of IS, PIIT is defined as the willingness of an individual to try out any new information technology. Congruent to psychological and consumer behavior literatures, PIIT can aid in identifying the individuals who are likely to try information technology innovations earlier than others and serve as change agents to facilitate diffusion of new technological services (Agarwal and Prasad, 1998).

Theory of Emotion

The theory of emotion has historical roots in ancient Greece, as well as Plato and Aristotle. Since then, various sophisticated theories have been developed and integrated emotion concept, for example, cognitive theory (Soloman, 1993; Forgas, 1995) asserts that Human's judgment, evaluation, or thought is necessary in order for an emotion to occur; affective events theory (Weiss and Cropanzano, 1996; Beal et al, 2005) addresses the causes, structures, and consequences of emotional experience; perceptual theory emphasizes on the meaningful content and feeling of emotion (Marinier and Laird, 2006; Drake and Myers, 2006). Many different disciplines have produced extensive research on the emotions. Researchers in various disciplines incorporate multiple perspectives inclusively in their work and empirical study.

Emotion has been considered as a very significant construct to understand consumer's preference in service consumption in the literature of psychology, marketing, and information systems. The Affect Infusion Model (AIM) is developed by Forgas (1995) which intends to explain how consumer's affective state influences one's information process and judgment ability. As the key argument for AIM, consumers' affect state plays significant role in their evaluation and responses to complicated situation. Affect has been defined by Huitt (2003) as "the experience of feeling or emotion". Consumers are emotional human beings who expect to achieve pleasurable experiences. Schmitt (1999) indicated that consumers are emotionally driven because consumption experiences are directed to achieve fantasies, feelings, and fun.

Positive emotion and negative emotion represent independent domains of emotion in the existing literature and empirical studies. Russell (1979) identified valence feature of emotion which is pleasant and unpleasant. Later, Laros and Steenkamp (2005) identified two-side effects of consumer emotions. The negative effects include anger, fear, sadness, and shame; while the positive effects are contentment, happiness, love, and pride. In the electronic mediated environment (EME), Dabholkar (1996) found a strong positive emotion of using self service technology on perceived overall service quality. For example,

the consumer who is buying and using the online entertainment service would perceive positive emotion when consuming this service.

Research Framework and Hypothesis Development

To investigate the influences of innovativeness and emotion in electronic mediated environment, we developed the following research framework based on theory of try, theory of emotion, trust and risk model, and benefit risk valence model. The research framework is presented in Figure 1.

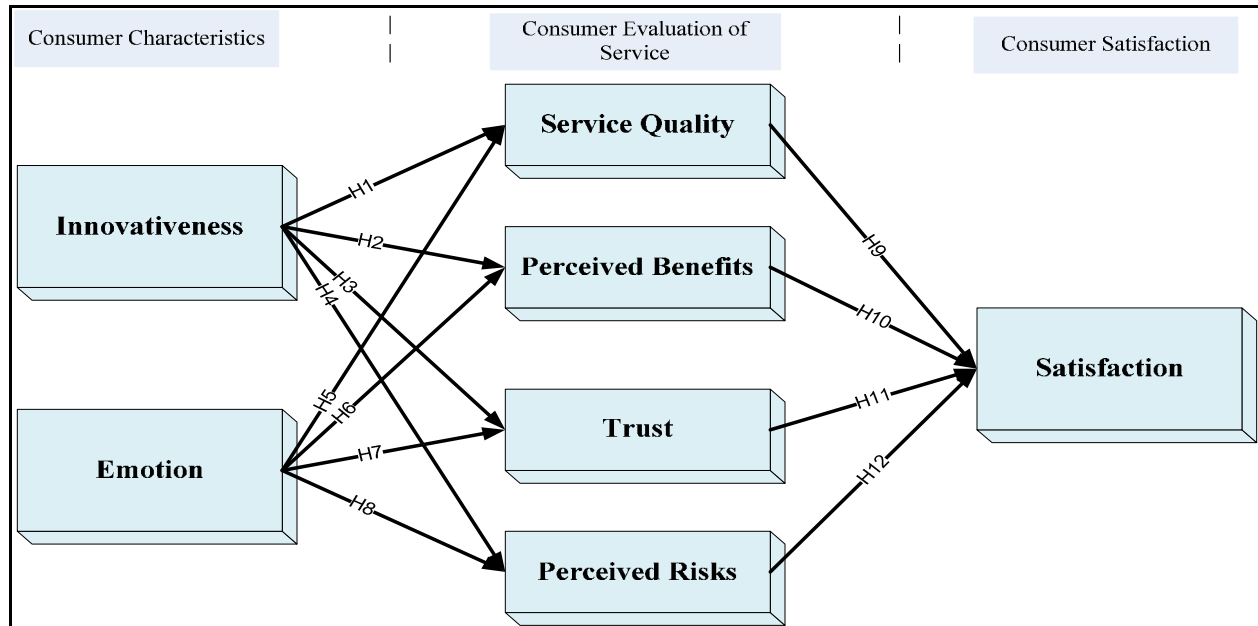


Figure 1: Research Framework

The Influential Role of Innovativeness

Innovativeness and Service Quality

Consumer innovativeness has been used to understand consumer perceptions and their following actions of new products and services (Wood and Swait, 2002). Innovativeness is often identified as a personality construct (Hirschman, 1980; Venkatraman and Price, 1990; Wood and Swait, 2002) that has been employed to predict consumer innovative tendencies to adopt a wide variety of technological innovations. Citrin et al. (2000) finds that innovativeness is able to predict consumer adoption of Internet shopping. Hung et al. (2003) indicated that personal innovativeness can affect consumer's evaluation and their adoption decision of services.

Grönroos in his seminal article (1982), defined service quality as “the outcome of an evaluation process, where the consumer compares his expectations with the service he perceives he has received” (pg. 37). Electronic mediated environment create an innovative way to offer consumers a virtual experience. For example, customized preview is the ability to tailor products, services and the environment to individual customers (Srinivasan et al., 2002). Websites with a more innovative layout and visually acceptable

interface result in greater service quality (Aladwania and Palvia, 2002; Barnes and Vidgen, 2002; Yang and Fang, 2004). As a result, this study proposes the following hypothesis in relation to service content quality:

Hypothesis 1: *Innovativeness has positive influence on consumer perceived service quality in EME.*

Innovativeness and Perceived Benefits

Based upon co-production concept in recent service science literature, Michel et al. (2008) indicated that consumer perceived innovativeness of a service really is: “finding new ways to co-solving customer problems.... After all, customers do not seek products/service; they seek satisfaction”. Customers also may perceive benefits of innovative products or services, because they represent the most recent functional and/or technological developments (Stock, 2010). In the EME, the exchange relationship is yielded through the process of repeated interaction between consumers and online service providers over time when consumers spend their time and effort in online service consumption (Rust and Kannan, 2003). Stock (2010) pointed out that “the greater the service innovativeness, the more intense the interaction between service employees and customers must be for effective service delivery” (pg 5). Therefore, customers’ perceived benefits during the service delivery should increase as well (Bonnin et al. 2005). Therefore, the following hypothesis is proposed:

Hypothesis 2: *Innovativeness has positive influence on consumer perceived benefits of service in EME.*

Innovativeness and Trust

Innovation diffusion theory (Rogers, 2003) reveals that people react differently to a creative idea or new practice because of a predisposed tendency toward adopting an innovation. On the other hand, theory on trust indicated that consumer will act cooperatively to fulfill the expectations of the vendor/service provider without exploiting its vulnerabilities (Pavlou & Fygenson, 2006). There are a number of empirical studies which indicate significant positive association between consumer innovativeness and their behavior intention (Limayem & Khalifa, 2000; Lu et al., 2005; Thompson, Compeau, & Higgins, 2006). According to Fang et al. (2009), consumer as a learner actively construct or build new ideas or concept based on current and past knowledge of the service provider. Trust leads consumer to a greater perceived controllability over the behavior and help consumer to overcome emotional barrier to the innovation or new technology (Gefen, 2002; Pavlou & Fygenson, 2006). Existing IS literature also demonstrate significant association between consumer perceived innovativeness and trust (McKnight et al, 2003; Fang et al, 2009). Thus, based on these arguments we expect:

Hypothesis 3: *Innovativeness has positive influence on consumer trust of service in EME.*

Innovativeness and Perceived Risks

Consumer innovativeness demonstrates important role in technology adoption and diffusion. During this adoption process, consumer faces a dilemma between desirable and undesirable consequences of the adoption and hence faces a risky decision (Mitchell et al., 1999; Hirunyawipada and Paswan, 2006). Based on above discussion of the risk theory, consumer perceived risks relate to an expectation of high potential loss of money or personal information. Thus, to an innovative idea or service provided by vendor, consumer may perceive unexpected results of adopting such service an outcome that deviates from expectation (Forsythe and Shi, 2003; Hirunyawipada and Paswan, 2006). Existing studies do not provide clear statement over the relationship between innovativeness and perceived risks. Many

technology adoption studies state that risks negatively affect consumer adoption decision to the new technology (Malhotra et al., 2003; Jarvenpaa et al., 1999). However, “actual adoption is the function of innovativeness” (Hirunyawipada and Paswan, 2006, pg. 187) which may lead to consumers seeking more information to ascertain the level of risk or manage the perceived risks (Manning et al., 1995). Therefore, we believe consumer perceived innovativeness has positive impact on consumer perceived risks of service in EME:

Hypothesis 4: *Innovativeness has positive influence on consumer perceived risks of service in EME.*

The Influential Role of Emotion

Emotion and Service Quality

Consumer emotion in EME relates to consumers’ valenced affective reaction to perceptions of service in the EME. Prior literature indicated that emotion is an important factor affecting online consumers’ evaluation of the service. Seiders et al. (2007) indicated that hedonic consumers view buying a product/service as an enjoyable and rewarding experience as part of the entire purchasing process. Novak et al. (2000) developed a structural model and indicated that playfulness is an important dimension of online consumers’ experience. They further concluded that “such experiential uses lead individuals to see the Web as a more playful environment” (Novak et al., 2000, pg.30). Meuter et al. (2003) summarized that consumers perceive higher quality of the online service when they are using the technology based self-services when enjoyment or feelings of independence are possibly achieved. Therefore, we believe that there is a positive association between consumer’s emotion and perceived service quality:

Hypothesis 5: *Emotion has positive influence on consumer perceived service quality in EME.*

Emotion and Perceived Benefits

Consumer perceived benefits consist of subjective hierarchical preferences based on an individual’s situation-specific comparisons of one object with another (Holbrook, 2006; Kim et al., 2009). “Such interactive relativistic preferences shape the essence of the consumption value in the sense that products perform services that provide the relevant value-creating experiences” (Holbrook, 2006, pg.715). IS research has suggested that intrinsic enjoyment associated with website usage can positively impact a consumer’s web usage over time (Novak, Hoffman, and Yung, 2000). Koufaris (2002) applied the model of flow and found that the emotional reaction to a website (intrinsic enjoyment) influenced the intention to return. Therefore, authors believe that there is positive relationship between consumers’ emotion and perceived benefits since “consumer marketer benefit from attention to conditions that foster relational bonds leading to reliable repeat business” (Holbrook, 2006, pg.12). Therefore, following hypothesis has been proposed.

Hypothesis 6: *Emotion has positive influence on consumer perceived benefits of the service in EME.*

Emotion and Trust

Trust is defined by Mayer et al (1995) as the willingness to be vulnerable to the actions of another person or people. So and Sculli (2002) provide a comprehensive review of the many advantageous effects of customer trust on general business related behaviors such as a reduction in transaction complexity, a reduction in transaction costs, and the development of long-term relationships with customers. Hoffman and Novak (1999) indicated that the primary reason many people have yet to shop online is due to the fundamental lack of trust. In the context of EME, trust is even more important because of the less verifiable and less controllable business environment of the web (Gefen, 2002). Therefore, the primary focus of the customer’s trust falls on the vendor’s website (Chow and Holden, 1997). Consumers may

enjoy online technology if it can streamline service performance by automating manual processes that are slower and more error prone (Berry et al., 2002; Yale and Venkatesh, 1986). Good and friendly interface design provides consumers the opportunity for an enjoyable experience and emotion (Dai and Salam, 2010). Cyr et al. (2006) discovered that visual design aesthetics did significantly impact consumer perception and evaluation of mobile service. Assael (1992) stated that “a favorable attitude towards an electronic service provider website that results in consistent use of the services provided by the e-service provider” (p. 87). Therefore, the positive emotion will be significantly associated with consumer trust of online service provider which will guide their subsequent action to this service provider in EME (Garbarino and Johnson, 2006). So we proposed following hypothesis:

Hypothesis 7: *Emotion has positive influence on consumer trust of the service in EME.*

Emotion and Risk

A number of marketing and consumer behavior studies emphasized the effects of emotion on decision making and risk taking (Isen and Geva, 1987; Isen and Patric, 1984; Mano, 1994; Lin et al, 2006). The general results from these studies indicated that “risk-taking tendency of decision makers is affected by their transient mood” (Lin et al, 2006, pg. 47). Different theoretical explanations have been proposed to explain the effect of emotion on cognitive response. Isen and Patrick (1984) demonstrated that a positive emotion tend to be more risk averse than those in a neutral mood. Raghunathan and Pham (1999) demonstrates that consumer with negative emotion were more inclined to take a risk (Raghunathan and Pham, 1999). Isen (1984) pointed out that people who have positive emotion “are motivated to prolong their positive feeling and avoid any circumstances that would ruin their pleasant state of mind” (Lin et al, 2006, pg. 59). Therefore, we believe consumers who have positive emotion will have high concern of risk since they would like to keep their positive emotion and avoid any unexpected loss. Based on these arguments, we propose the following hypothesis:

Hypothesis 8: *Emotion has positive influence on consumer perceived risks of the service in EME.*

Consumer evaluation of the service in EME and satisfaction

Oliver (1992) defines service satisfaction as consumer’s post-purchase evaluation and effective response to overall consumption experience. Researchers have identified that consumers’ satisfaction is highly correlated with the overall consumption experience which would exert a positive influence on consumers’ future purchase behavior (Oliver, 1980). Satisfaction is dependent upon the customer’s subjective perception and evaluation of service performance rather than the objective standards of quality (Greenwell et al, 2002). Thus, an e-service provider who meets or exceeds expectations is more likely to have satisfied customers. So the evaluation constructs including service quality, perceived benefits, trust, and perceived risks are summarize consumer knowledge and experiences with particular service providers and lead to service satisfaction.

Mathwick et al. (2001) have indicated that in online environment, the use of color, graphic layout and photographic quality combine to influence a desirable consumption experience. Ethier et al. (2006) have demonstrated that web site quality has positive impact on the cognitive appraisal of certain online service. The above arguments lead to the following hypothesis:

Hypothesis 9: *Perceived Service Quality has positive influence on consumer satisfaction of the service in EME.*

Hallowell (1996) indicated that consumer satisfaction is the result of the consumer’s perception of received benefits. Adapted from Bagozzi (1992) research on appraisal and emotion response, Lin and Wang (2006) suggests that more cognitively-oriented value appraisal precede affectively oriented satisfaction. Therefore, this study proposes following hypothesis:

Hypothesis 10: *Perceived benefits have positive influence on consumer satisfaction of the service in EME.*

Based upon our earlier argument, trust in the electronic mediated environment is significant because of the complexity and unpredictability of online transaction and interactions resulting possibility of insincere and unpredictable behavior (Gefen and Straub, 2003). Prior literature (Garbarino and Johnson, 2006) confirmed that trust is an important determinants of the customers' satisfaction. Consumers are more likely to display greater confidence and trust towards the service provider's capabilities to fulfill the transactional obligations. Such confidence signals consumer' general evaluation of how well certain service satisfies consumer's expectation. As a result, we expect following hypothesis:

Hypothesis 11: *Trust has positive influence on consumer satisfaction of the service in EME.*

Risk has been defined as the expectation for a potential loss or undesired outcome that is associated with releasing or sharing personal information to the firm (Dowling and Staelin 1994). Consumer will perceive more risks online than in traditional brick and mortar environment (Gabriel and Nyshadham, 2008). Chellappa (2001) proposed that consumers expect a guarantee of integrity on every aspect of an e-commerce transaction. Beccera and Gupta (1999) addressed that the consumer's overall satisfaction in e-commerce transaction is determined by consumer's subjective evaluation of the risk perception. Service providers in the EME have realized that consumers are concerned with the process of how the service is delivered along with the outcome of the service (Katz, 2001). Service failure and interruption are potential risks associated with service delivery which typically lead to low satisfaction (Dai et al, 2008). In responding to such risk concern, service provider in EME have begun to provide 24*7 customer support with "live" communication in order to improve consumer satisfaction. So we propose:

Hypothesis 12: *Perceived risks have positive influence on consumer satisfaction of the service in EME.*

Methodology

Measurement development

The purpose of this study is to understand the influential role of consumer innovativeness and emotion on consumer evaluation and satisfaction of service in EME. We achieve this objective through the development of an integrative research model that contains consumer innovativeness, emotion, service quality, perceived benefits, trust, perceived risks, and satisfaction. A survey instrument was developed based on the research model and an extensive review of the existing literature. The development of the survey instrument followed Moore and Benbasat (1991) and Straub (1989). For the item creation, most measurement items for the principle constructs were adapted from existing measures and modified to fit the context of this research. Measures for the perceived innovativeness were obtained from existing empirical research (Agarwal & Prasad, 1998). Measures of emotion construct were adapted from Cyr et al (2006) and Wulf et al (2006). The measurement of service evaluation constructs including service quality (Tan et al, 2007; Fassnacht and Koese, 2006), perceived benefits (Kim et al, 2009), Trust (Gefen, 2002; Wang and Benbasat, 2007), risk (Mlhotra et al, 2004), ands satisfaction (Oliver, 1992). All survey items were measured using a five-point Likert-type scale (1 = Strongly Disagree to 5 =Strongly Agree).

Data Collection

The survey instrument was first tested with a group of five IS scholars. The aim of this pre-test was to examine the feasibility of the instrument and gain qualitative feedback from the respondents. Later, a larger scale pilot study was conducted using 90 business school students to test further refine the instrument. Those items failed in reliability tests and highly cross-loaded on multiple constructs were removed from instrument in large scale data collection. After that, the questionnaire was translated into Mandarin Chinese version. This Chinese version of questionnaire was also pilot tested with a group of 90

Chinese native speakers. Based on their feedback, the revised survey, in Chinese, was distributed in five universities and five organizations in a large city in China where information technology and services in the EME are largely diffused and promoted by vendors. The questionnaires were randomly distributed in these 10 organizations, in order to minimize the bias between respondents and non-respondents. The invitees took about 20 minutes to complete the survey.

Total 600 questionnaires were distributed in a large city in China, out of which 510 responses were collected. Respondents included college and graduate students, employees of companies, and government organizations. This generated an 85 % response rate. 95 incomplete questionnaires were dropped later in data analysis due to the inadequate information provided yielding 415 useable responses in our final data analysis. Among these respondents, 45.2 percent were male and 54.8 percent were female. 97.5 percent of respondents are between the ages of 18 to 37. About 99 percent people have education above college level. More than 71 percent of the respondents have Internet experience over five years. Detailed descriptive statistics relating to the respondents' demographics are shown in Table 2.

Table 2: Descriptive Statistics of Respondents Characteristics (N= 415)

Measure	Value	Frequency	Percentage
Gender	Male	196	47.2%
	Female	219	52.8%
Age	18-25	314	75.7%
	26-35	51	12.3%
	36-55	46	11.1%
	>55	4	1.0%
Education	High School	204	49.2%
	Some college	120	28.9%
	Bachelors	73	17.6%
	Masters	16	3.9%
	Ph.D.	2	0.5%
Income Level (Annual)	<12,000rmb	214	51.6%
	12,000rmb--36,000rmb	80	21.4%
	36,000rmb--60,000rmb	13	3.5%
	6,0000rmb--96,000rmb	14	3.7%
	>96,000rmb	19	5.1%

Examine the Measurement Model

This study presents measurement validations following Straub and Carlson (1989), Doll and Torkzadeh (1988), and Nunnally (1978; 1994). Initial reliability of the scale was assessed first using composite reliability. To ensure that items measured their respective constructs, construct validity of each item was then tested following Doll and Torkzadeh (1988). In this step, inter-construct correlation and conducted exploratory factor analysis was performed to assure scale items loaded to a common factor. Additionally, the cross-loading items were discovered and removed. After that, convergent and discriminant validity of the scale was evaluated according to Nunnally (1994), Chin (2003), and Pavlou and Fygson (2006). Furthermore, we investigated the common method bias in this study following Pavlou and Gefen (2005). Finally, reliabilities of the modified scales were examined again using a composite reliability test. The descriptive statistics are reported in Table 2. Reported statistics include mean, standard deviation and inter-construct correlation matrix.

Construct validity was examined by assessing the convergent validity and discriminate validity. To examine convergent validity, the internal consistency and Average Variance Extracted (AVE) values have been checked. Internal consistency was calculated by Fornell's composite reliability (Fornell and Larcker,

1981). Typically 0.70 is considered as the threshold of internal consistency for all variables (Nunnally and Bernstein, 1994; Pavlou and Fygenson, 2006). After a refinement of the survey instrument utilized in our initial tests, all constructs reported a high reliability (Please see table 3; composite reliability > 0.80). In addition, all Average Variance Extracted (AVE) values of principal constructs are examined. The square root of all AVE values are at least equal or higher than 0.70. Thus, the measurements fulfill the requirements of convergent validity.

Discriminant validity has been examined the means of checking principle construct loadings and AVE values. All loadings are much higher on their hypothesized factor compared to the cross-loadings on other construct. Additionally, the square roots of all AVEs are above 0.7 which are much larger than all the cross-correlations. Above two tests demonstrated that all measures in this study have adequate discriminant validity.

Two steps are adopted in this study to investigate common method bias. Firstly, we integrated several reverse-scored items in our survey design to reduce acquiescence problems (Lindell and Whiney 2001). Secondly, we conducted Harman’s one-factor test according to Podsakoff and Organ (1986). The results demonstrated that each of the principal constructs explains almost equal variance. Thus, common method bias does not significantly affect the results of this study.

Table 3: Inter-Construct Correlation Matrix for Principal Construct

	Mean	Standard Deviation	1	2	3	4	5	6	7
1. Perceived Innovativeness	3.35	1.47	1.00						
2. Emotion	3.36	1.16	0.35	1.00					
3. Perceived Service Quality	3.33	1.18	0.35	0.45	1.00				
4. Perceived Benefits	3.25	1.18	0.36	0.41	0.43	1.00			
5. Trust	3.28	1.23	0.37	0.54	0.55	0.54	1.00		
6. Perceived Risks	3.31	1.14	0.32	0.40	0.38	0.38	0.53	1.00	
7. Satisfaction	3.22	1.19	0.34	0.38	0.39	0.50	0.44	0.48	1.00

Table 4: Reliability and Average Variance Extracted for Principal Construct

	Composite Reliability	AVE
Perceived Innovativeness	0.82	0.78
Emotion	0.82	0.70
Perceived Service Quality	0.82	0.73
Perceived Benefits	0.83	0.70
Trust	0.83	0.70
Perceived Risks	0.83	0.75
Satisfaction	0.81	0.72

Table 5: Factor Loadings for the Measurement Model

Construct	Item Loading	Construct	Item Loading
Perceived Innovativeness		Trust	
Innova1	0.55	TBeneve1	0.61
Innova2	0.68	TBeneve2	0.48
Innova3	0.85	TBeneve3	0.62
Innova4	0.80	TCompe1	0.61
Emotion		TCompe2	0.65
Emotion1	0.62	TCompe3	0.67
Emotion2	0.72	TIntegrit1	0.69
Emotion3	0.80	TIntegrit2	0.69
Emotion4	0.70	TIntegrit3	0.64
Emotion5	0.61		
Service Quality		Perceived Risks	
ServQual1	0.72	Risk1	0.71
ServQual2	0.75	Risk2	0.76
ServQual3	0.76	Risk3	0.78
ServQual4	0.67	Risk4	0.73
Perceived Benefits		Satisfaction	
Benefit1	0.66	Satisfa1	0.69
Benefit2	0.75	Satisfa2	0.79
Benefit3	0.75	Satisfa3	0.77
Benefit4	0.64	Satisfa4	0.64
Benefit5	0.68		

Testing the Structural Model

The structural equation modeling (SEM) approach was used to analyze the structural model in this study since the SEM based procedure provides the analysis of structured causal relationships among multiple predictors and unobserved latent variables (Chin, 1998). SmartPLS 2.0(Ringle et al, 2005) was used as the analysis tool in testing the structural model.

The standardized PLS path coefficients for the structural model test are shown in Figure 2. Item loadings of each construct are omitted for a clear exposition. The explanatory power of the structural model was assessed based on the amount of variance explained in the endogenous constructs in our structural model. The proposed structural model is able to explain 36.2% of the variance in consumer satisfaction.

The results demonstrated that perceived innovativeness has significantly influenced on service quality ($\beta=0.22$, $p<0.01$), perceived benefits ($\beta=0.25$, $p<0.01$), trust ($\beta=0.21$, $p<0.01$), and perceived risks ($\beta=0.21$, $p<0.01$) respectively. Thus, these results support H1, H2, H3, and H4.

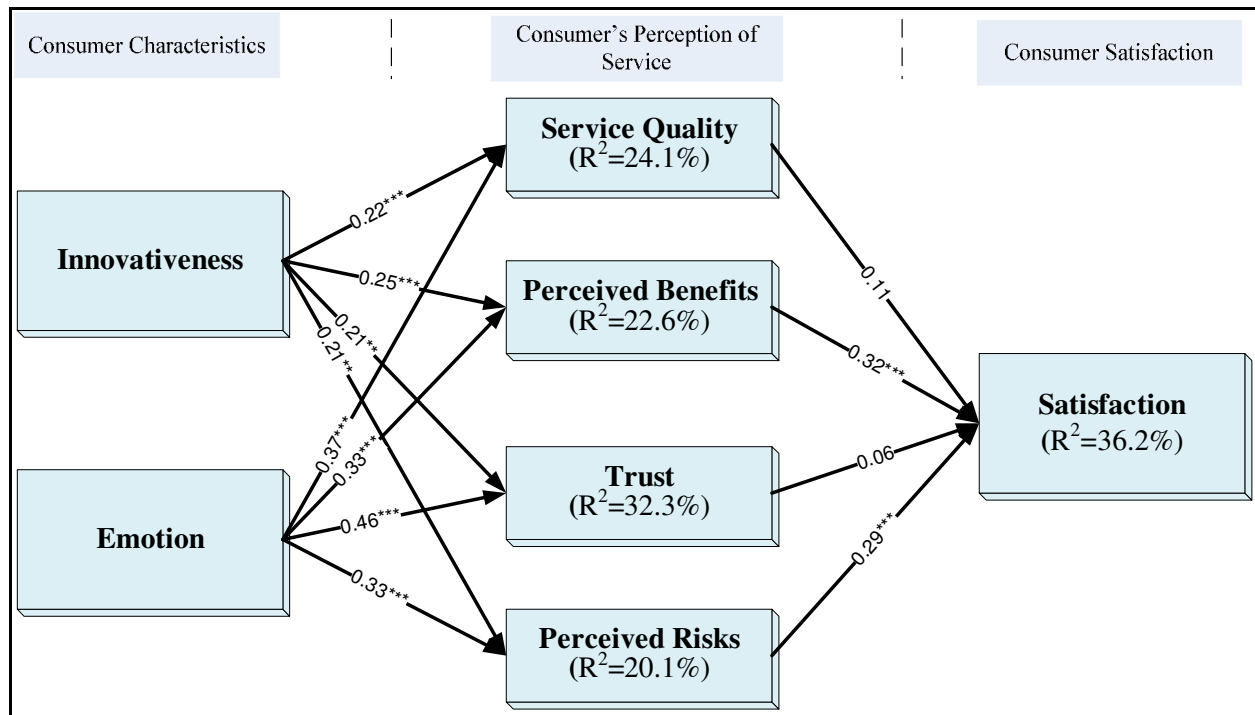


Figure 2: PLS Results for Structural Model
 N=415, ***Significant at $p < 0.01$, **Significant at $p < 0.05$

The results also show the emotion construct play significant influential role on service quality ($\beta=0.37$, $p < 0.01$), perceived benefits ($\beta=0.33$, $p < 0.01$), trust ($\beta=0.46$, $p < 0.01$), and perceived risks ($\beta=0.33$, $p < 0.01$) respectively. Therefore, H1, H2, H3, and H4 are supported.

As evaluation construct, consumer perceived benefits ($\beta=0.32$, $p < 0.01$), and perceived risks ($\beta=0.29$, $p < 0.01$) are significantly associated with consumer satisfaction. Although service quality is positively associated with satisfaction, the influence in structural model is not significant ($\beta=0.11$, $p > 0.05$). Another unexpected result is that the impact of trust on consumer satisfaction is not statistically supported ($\beta=0.06$, $p > 0.05$). These results support H10 and H12, but reject H9 and H11. The summary of the hypotheses and corresponding tests are displayed in Table 6.

Table 6: Summary of Hypotheses Tests and Results

Hypothesis	Hypothesized Path	Path coefficient	T-statistic	Support?
Hypothesis 1	Perceived Innovativeness → Service Quality	0.22	2.19	YES
Hypothesis 2	Perceived Innovativeness → Perceived Benefits	0.25	2.34	YES
Hypothesis 3	Perceived Innovativeness → Trust	0.21	1.99	YES
Hypothesis 4	Perceived Innovativeness → Perceived Risks	0.21	1.94	YES
Hypothesis 5	Emotion → Service Quality	0.37	3.57	YES
Hypothesis 6	Emotion → Perceived Benefits	0.33	2.69	YES
Hypothesis 7	Emotion → Trust	0.46	5.41	YES

Hypothesis	Hypothesized Path	Path coefficient	T-statistic	Support?
Hypothesis 8	Emotion → Perceived Risks	0.33	3.53	YES
Hypothesis 9	Service Quality → Satisfaction	0.11	1.14	NO
Hypothesis 10	Perceived Benefits → Satisfaction	0.32	2.15	YES
Hypothesis 11	Trust → Satisfaction	0.06	0.53	NO
Hypothesis 12	Perceived Risks → Satisfaction	0.29	2.20	YES

Discussion and Conclusion

Echoing the call from Rai and Sambamurthy (2006) that “*the growth of self-service and multichannel environments raises questions about how service interfaces should be designed to manage the total customer experience,*” this study presents an integrative framework of perceived risks, trust, innovativeness, emotion, perceived benefits, service quality, as well as consumer satisfaction of the service in EME. The analytical framework demonstrated strong explanatory power of perceived risks, trust, perceived innovativeness and emotion in developing overall satisfaction of service in EME, which validated conceptual models and most theoretical hypotheses proposed in this research.

In existing literature, factors like privacy concerns, vendor reputation, ease of use, usefulness, etc. are considered as critical antecedents of consumer perceived risks and trust. This study suggests that, in an environment where uncertainty and unforeseeable risk might reside, innovativeness and emotion affect the cultivation of consumers’ trust and risk perception in regard to their satisfaction on services in EME. It has been indicated by Shaw and Ivens (2005) that great customer experiences guided by satisfaction and trust are a source of long term competitive advantages. The recent advancement of technology infrastructure can bring consumers more confidence and empowerment in using services in EME. The advanced multimedia technology facilitates the sensation engagement process and the virtual communities provide effective and trustworthy platforms for both consumers and service providers to create a more sensible and enjoyable experience. This requires the business vendors to create more functional features over the powerful technical service system to help customers establish trust belief against uncertainty and potential loss and ultimately enhance satisfactory experience of service in EME.

The anticipated findings of this research will provide valuable insights for both academic and practitioner communities. This study shows how innovativeness plays a crucial role in consumer evaluation of the service in terms of service quality, perceived benefits, trust, and perceived risks in order to gain a satisfactory experience of consuming the service. Managers must bring the innovative service content or service mode to consumer. Consumers as a co-producer in service consumption process always expect high competency of service provider against to their other online experiences. Managers need to be aware that simply fulfilling an order is not enough; consumer are expecting more out of the service provided from a particular service provider in today’s competitive market place. Therefore, innovative service presentation and service delivery will provide consumer with higher benefits perception and confidence of using such service in EME.

Regarding the role of consumer’s emotion, service providers must recognize the significance and necessity of wrapping emotion into service offering in the EME. To improve service emotion wrapping in the EME, Dueb and Menon (2000) suggest that service providers need to be trained to recognize various emotional expressions that consumers may show at various in-process episodes. A positive emotion could be realized by developing the device and service interfaces that are visually attractive, convivial for navigation, rich in information and content, and flawless and impeccable (Either *et al.*, 2006). In addition, the service providers may create the desired impressions and introduce the positive cues that are able to aid the creation of positive and enjoyable emotions (Pine and Gilmore, 1998). In the EME, friendly and reliable

service system design will reduce the time and effort costs in a consumer's entire shopping experience (Berry et al., 2002) which will help the consumer develop positive emotion in consuming the service in EME.

This study also provides validated measurements to facilitate evaluation of several major constructs of consumer perceptions of services in EME. The comprehensive framework provides a complete nomological network for future research to investigate innovativeness and emotion in different settings so that systematic knowledge can be accumulated.

The results presented in this article are useful in understanding innovativeness and emotion and their roles in improving consumer evaluation of services. There are some limitations that need to be noted. The validity of our results strongly depends on the sampling of the surveyed subjects. All the respondents were solicited from the same city in China. While differences in ethnicity exist it may be homogeneous in nature and life style. This study provides companies and service providers in EME who are seeking to acquire and retain customers in Chinese marketplace with specific information about the Chinese consumers' perceptions in EME in relation to service evaluation and consumption experiences. Replicating the study in several other cities in China would help in generalizing the results. A similar study in different countries might yield interesting results based on cultural differences. In the increasingly globalized market, many practitioners are also faced with the challenge of offering innovative and enjoyable services to their local users. Many services in the EME are created by translating text from one language into another. In fact, cultural aspects influence the typical ways in which web applications and other technology applications are used within a country, above and beyond tangible factors (Zakaria and Stanton, 2003). Therefore, in a future study, the author will investigate whether these countries' specific cultures moderate the role of innovativeness and emotion in developing a satisfactory experience in EME.

References

- Agarwal, R. and Prasad. J. "A conceptual and operational definition of personal innovativeness in the domain of information technology," *Inform. Systems Research* (9:2), 1998, pp.204–215.
- Aladwania, A.M. and Palvia, P.C. "Developing and validating an instrument for measuring user-perceived web quality," *Information & Management* (39:6), 2002, pp. 467-476.
- Assael, H. *Consumer behavior and marketing action*. Boston, MA: PWS-KENT Publishing Company, 1992.
- Bagozzi, R. P. "The self-regulation of attitudes, intentions and behavior," *Social Psychology Quarterly* (55), 1992, pp.178–204.
- Bagozzi, R.P. and P.R. Warshaw, Trying to Consume. *Journal of Consumer Research*, 1990. 17(2): p. 127-140.
- Bagozzi, R.P., On The Neglect of Volition in Consumer Research: A Critique and Proposal. *Psychology & Marketing*, 1993. 10(3): p. 215-237.
- Barnes, S.J. and Vidgen, R.T., "An integrative approach to the assessment of e-commerce quality", *Journal of Electronic Commerce Research* (3:3), 2002, pp. 114-127.
- Bauer, R.A. "Consumer Behavior as Risk Taking," in Robert S. Hancock, ed., *Dynamic Marketing for a Changing World* (Chicago: American Marketing Association), 1960, pp. 389-398
- Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. "An episodic process model of affective influence," *Journal of Applied Psychology*, (90:6), 2005, pp. 1054-1068.
- Beccera, M. and Gupta, A.K. "Trust within the Organization: Integrating the Trust Literature with Agency Theory and Transaction Cost Economics," *Public Administration Quarterly*, 1999, 177-203.
- Berry, L.L., Seiders, K., and Grewal, D. "Understanding Service Convenience," *Journal of Marketing* (66:3), 2002, pp.1-17.

- Brady, M.K., G.A. Knight, J.J. Cronin, G.T. Hult and B.D. Keillor (2005). "Removing the Contextual Lens: A Multinational, Multi-setting Comparison of Service Evaluation Models," *Journal of Retailing*, 81 (3) 215-230.
- Bonnin, G., Segard, O., & Vialle, P. (2005). Relationship marketing and innovation: the case of the launch of wireless local loop telecommunication services in France. *Journal of Services Research*, 5(Special Issue), 149-171.
- Chellappa, R.K., " Consumers' Trust in Electronic Commerce Transactions: The Role of Perceived Privacy and Perceived Security," under submission.
- Chin, W. W. "Issues and Opinion on Structural Equation Modeling," *MIS Quarterly* (22:1), 1998, pp. 7-16.
- Chin, W.W., Marcolin, B., and Newsted, P. "A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic Mail Adoption Study," *Information Systems Research* (14:2), 2003, pp. 189-217.
- Chow, S. and Holden, R. "Toward and understanding of loyalty: The moderating role of trust", *Journal of Managerial Issues*, (9:3), 1997, pp. 275-298.
- Citrin, A. V., Sprott, D. E., Silverman, S. N., & Stem, D. E. "Adoption of Internet Commerce: requirements and properties," *Computer Networks* (37), 2001, pp. 221-236
- Cyr, D., Head, M., and Ivanov, A. "Design aesthetics leading to m-loyalty in mobile commerce", *Information & Management* (43:8), 2006, pp.950-963.
- Dabholkar, P. A. "Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality," *International Journal of Research in Marketing* (13:1), 1996, pp.29-51.
- Dai, H. and Salam, A. "An Integrative Framework of Service Convenience, Service Consumption Experience, and Relational Exchange in Electronic Mediated Environment (EME)," *Proceedings of Thirty First International Conference on Information Systems*, St. Louis, 2010
- Dai, H., Salam, A.F., and King, R. C. "Service Convenience, Service Consumption Experience, and Relational Exchange in Electronic Mediated Environment," *Proceedings of International Conference on Information Systems (ICIS)*, Paris, France, Dec. 2008.
- Dinev, T. and Hart, P. "An Extended Privacy Calculus Model for E-Commerce Transactions," *Information Systems Research* (17:1), March 2006, pp. 61-80
- Doll, W.J., and Torkzadeh, G. "The Measurement of End-User Computing satisfaction," *MIS Quarterly* (June), 1988, pp. 259-274.
- Dowling, G.R., Staelin, R., A model of perceived risk and intended risk handling activity. *Journal of Consumer Research* (21:1), 1994, pp. 119-134.
- Drake, R. A., & Myers, L. R. "Visual attention, emotion, and action tendency: Feeling active or passive," *Cognition and Emotion* (20), 2006, pp.608-622.
- Éthier, J., Hadaya, P. Talbot, J. and Cadieux, J. "B2C Web Site Quality and Emotions during Online Shopping Episodes: An Empirical Study," *Information & Management* (43), 2006, pp.627-639.
- Everard, A.P., and Galletta, D.F. "How presentation flaws affect perceived site quality, trust, and intention to purchase from an online store," *Journal of Management Information Systems* (22:3), 2006, pp.56-95.
- Fassnacht, M. and Koese, I. "Quality of Electronic Services: Conceptualizing and Testing Hierarchical Model," *Journal of service research* (9:1), 2006, pp.19-37.
- Fang, J., Shao, P., Lan, G. "Effects of innovativeness and trust on web survey participation," *Computers in Human Behavior* (25:1), 2009, pp. 144-152.
- Forgas, J.P. Mood and judgment: The affect infusion model. *Psychological Bulletin*, (117), 1995, pp.39-66.

- Fornell, C., and Larcker, Y.F. "Equating Structural Equation Models with Unobservable Variables and Measurement Error" *Journal of Marketing Research* (15:1), 1951, pp. 39-50.
- Forsythe, S.M., Shi, B. (2003), "Consumer patronage and risk perception in internet shopping", *Journal of Business Research*, Vol. 56 No.11, pp.867-75.
- Gabriel, I.J. and Nyshadham, E. "A Cognitive Map of People's Online Risk Perceptions and Attitudes: An Empirical Study," *Proceedings of the 41st Hawaii International Conference on System Sciences (HICSS-41)* Held in January 7-10, 2008, Big Island, Hawaii.
- Garbarino, E. and Johnson, M. S. "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships," *Journal of Marketing* (63), 1999, pp.70-87.
- Gefen, D. "Customer loyalty in e-commerce," *Journal of the Association for Information Systems* (3), 2002, pp. 27-51.
- Gefen, D., and Straub, D.W. (2003) ,Trust and TAM in online shopping: An integrated model', *MIS Quarterly*, 27(1), pp. 51-90.
- Greenwell, T. C., Fink, J., and Pastore, D. "Assessing the influence of the physical sports facility on customer satisfaction within the context of the service experience," *Sport Management Review* (5), 2002, pp.129-148.
- Grönroos, C. "Marketing Services: The Case of a Missing Product," *Journal of Business and Industrial Marketing* (13:5), 1998, pp. 322-338.
- Hallowell, R. "The Relationship of Customer Satisfaction, Customer Loyalty, and Profitability: An Empirical Study," *International Journal of Service Industry Management*, (7:4), 1996, pp. 27-42.
- Hirschman, Elizabeth C. "Innovativeness, Novelty Seeking, and Consumer Creativity", *Journal of Consumer Research*, (7:3), 1980, pp. 283-295
- Hoffman, D. L., T. P. Novak, M. Peralta. "Building consumer trust online," *Communication of ACM*, (42:4), 1999, pp. 80-85
- Holbrook, B. "Consumption experience, customer value, and subjective personal introspection: An illustrative photographic essay", *Journal of Business Research* (59:6), 2006, pp. 714-725.
- Huitt, W. "The affective system," *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. Retrieved [03/02/2011], from <http://www.edpsycinteractive.org/topics/affsys/affsys.html>, 2003
- Hung, S. Y., C. Y. Ku and C. M. Chang, "Critical factors of WAP services adoption: An empirical study," *Electronic Commerce Research and Applications* (2), 2003, pp.42-60.
- Hirunyawipada T and Paswan K A (2006) Consumer innovativeness and perceived risk: implications for high technology product adoption. *Journal on Consumer Marketing* 23 (4), pp. 182-198.
- Isen, A. M. (1984). Towards understanding the role of affect in cognition. In R.S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition*, 3, 179-236). Erlbaum: Hillsdale, NJ.
- Isen, A. M., & Geva, N. (1987). The influence of positive affect on acceptable level of risk: The person with a large canoe has a large worry. *Organizational Behavior and Human Decision Processes*, 39, 145-154.
- Jarvenpaa, S. L., N. Tractinsky. "Consumer trust in an internet store: A cross-cultural validation," *Journal of Computer Mediated Communication*, (5:2), 1999.
- Katz, J. *How Emotions Work*. Chicago, IL: University of Chicago Press, 1999.
- Kim, D. J., L. F. Donald, and H. Raghav Rao, "Trust and Satisfaction, Two Stepping Stones for Successful E-Commerce Relationships: A Longitudinal Exploration" *Information Systems Research* (20:2), 2009, pp.237-257.
- Kleijnen, M., de Ruyter, K. and Wetzels, M. (2007), "An assessment of value creation in mobile service delivery and the moderating role of time consciousness", *Journal of*

Retailing, 83(1):33-46

Koufaris, M. "Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior," *Information Systems Research* (13:2), 2002, pp. 205-223.

Laros, F.J.M. and Steenkamp, J.B.E.M. , "Emotions in consumer behavior: a hierarchical approach," *Journal of Business Research* (58), 2005, pp.1437-1445.

Lim, K. H., C. L. Sia, M. K. O. Lee, I. Benbasat. " How do I trust you online, and if so, will I buy?: An empirical study of two trust-building strategies," *Journal Management Information Systems* (23:2), 2006, pp. 233-266.

Limayem, M. & Khalifa, M. (2000). *Proceedings of the Fifth IEEE symposium on computers and communications* (pp. 286-290) France: Antibes-Juan les Pins.

Lin, H.H. and Wang, Y.S. "An Examination of the Determinants of Customer Loyalty in Mobile Commerce Contexts, Information and Management," *Information & Management* (43:3), 2006, pp. 271-282.

Lin, C., Yen, H., and Chuang, S., "The effects of emotion and need for cognition on consumer choice involving risk," *Marketing Letters* (17:1), 2006, pp.47-60.

Lowry, P., Vance, A., Moody, G., and Beckman, B., Read, A. "Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of ecommerce web sites," *Journal of Management Information Systems* (24:4), 2008, pp.199-224.

Lu, J., Yao, J. E., & Yu, C.-S. (2005). Personal innovativeness, social influences and adoption of wireless internet services via mobile technology. *Journal of Strategic Information Systems*, 14, 245-268.

Malhotra, N. K., Kim, S. S. and Agarwal, J. "Internet users' Information privacy concerns (IUIPC): The construct, the scale and a causal model," *Information Systems Research* (15), 2004, p.336-355.

Manning, K.C., Bearden, W.O., Madden, T.J. (1995), "Consumer innovativeness and the adoption process", *Journal of Consumer Psychology*, Vol. 4 No.4, pp.329-45.

Mano, H. (1994). Risk-taking, framing effect, and affect. *Organizational Behavior and Human Decision Processes*, 57, 38-58.

Marinier, R., & Laird, J. A cognitive architecture theory of comprehension and appraisal. In R. Trappl (Ed.), *Cybernetics and systems 2006* (Vol. 2). *Proceedings of the 18th European meeting on cybernetics and systems research*. Vienna: Austrian Society for Cybernetic Studies, 2006.

Mathwick, C., Malhotra, N.K. and Rigdon, E. "Experiential value: conceptualization, measurement and application in the catalog and Internet shopping environment", *Journal of Retailing* (77:1), 2001, pp. 39-56.

Mayer, R.C., Davis, J.H., and Schoorman, F.D. (1995), "An Integrative Model of Organizational Trust," *The Academy of Management Review*, 20, 709-34.

McKnight, D., Choudhury, V. and Kacmar, C. "Developing and validating trust measures for e-commerce: an integrative typology," *Information Systems Research* (13:3), 2002, pp. 334-359.

Meuter, M. L., Ostrom, A. L., Bitner, M.J., and Roundtree, R. "The influence of technology anxiety on consumer use and experiences with self-service technologies," *Journal of Business Research* (56), 2003, pp.899-906.

Michel, S., Brown, S. W., & Gallan, A. S. (2008). Service-logic innovations: how to innovate customers, not products. *California Management Review*, 50(3), 49-65.

Moore, G. C., and Benbasat, I. "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation," *Information Systems Research* (2:3), 1991, pp. 192-222.

Mathur, A., Examining Trying as a Mediator and Control as a Moderator of Intention-behavior Relationship. *Psychology & Marketing*, 1998. 15(3): p. 241-259.

Novak, T. P., Hoffman, D.L. and Yung, Y. "Measuring the customer experience in online environments: A structural modeling approach" *Marketing Science* (19:1), 2000, pp.22-42.

- Nunnally, J. C., & Bernstein, I. H. *Psychometric theory* (3rd ed). New York: McGraw-Hill, 1994.
- Nunnally, N. C., *Psychometric theory*. New York, New York: McGraw-Hill, 1978.
- Oliver, R. "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research* (17:4), 1980, pp.460-469
- Oliver, R. "An Investigation of the Attribute Basis of Emotion and Related Affects in Consumption: Suggestions for a Stage-Specific Satisfaction Framework." *Advances in Consumer Research*, 19. Eds. John F. Sherry and Brian Sternthal. Ann Arbor, MI: Association for Consumer Research, 1992, pp.237-244.
- Pavlou, P. A., and Fygenson, M. "Understanding and Predicting Electronic Commerce Adoption: An Extension of The Theory of Planned Behavior," *MIS Quarterly* (30:1), 2006, pp.115-143.
- Pavlou, P.A., Liang, H., and Xue, Y. "Understanding and mitigating uncertainty in online exchange relationships: Aprincipal-agent perspective," *MIS Quarterly* (31:1) 2007, pp 105-136
- Pennington, R.; Dixon Wilcox, H. and Grover, V. "The role of system trust in business-to-consumer transactions," *Journal of Management Information Systems* (20:3), 2004, pp.197-226.
- Peter, J. P., and Tarpey, L. Z. Sr., "A Comparative Analysis of Three Consumer Decision Strategies," *Journal of Consumer Research* (2),1975, pp. 29-37
- Raghunathan, R., & Pham, M. T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior and Human Decision Processes*, 79, 56-77
- Ringle, C.M., Wende, S., Will, S.: SmartPLS 2.0 (M3) Beta, Hamburg 2005, <http://www.smartpls.de>.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press
- Rousseau, D.M., S. Sitkin, R.S. Burt and C. Camerer (1998), 'Not so different after all: A cross-discipline view of trust', *Academy of Management Review*, 23, 393-404.
- Russell, J. A. "Affective Space Is Bipolar," *Journal of Personality and Social Psychology* (37), September, 1979, pp.345-356.
- Schmitt, B. "Experiential Marketing: A Framework for Design and Communications," *Design Management Journal* (10:2), 1999, pp.10-17.
- Seiders, K., Voss, G.B., Godfrey, A.L., and Grewal, D. "SERVCON: development and validation of a multidimensional service convenience scale." *Journal of the Academy of Marketing Science* (35:1), 2007, pp.144-156.
- Sia, C.-L., K.H. Lim, K. Leung, M.K.O. Lee, and W.W. Huang, "Web Strategies to Promote Internet Shopping: Is Cultural-Customization Needed?" *MIS Quarterly*, (33:3), 2009, pp.491-512.
- So, M. and Sculli, D. (2002) 'The role of trust, quality, value and risk in conducting e-business', *Industrial Management and Data Systems* (102:9), pp. 503-512.
- Solomon, R. C. The philosophy of emotions. In M. Lewis & J. M. Haviland (Eds.), *Handbook of Emotions*, New York: Guildford, 1993, pp. 3-15.
- Srinivasan, S. S., Anderson, R. and Ponnnavolu, K. "Customer Loyalty in e-Commerce: An Exploration of its Antecedents and Consequences," *Journal of Retailing* (78), 2002, pp.41-50.
- Stock, R. "How does product program innovativeness affect customer satisfaction? A comparison of goods and services," *Journal Name: Journal of the Academy of Marketing Science*, 2010, pp.1-15
- Straub, D. W. "Validating instruments in MIS research," *MIS Quarterly* (13:2), 1989, pp.147-169.
- Straub, D.W., and Carlson, C.L. "Validating Instruments in MIS Research," *MIS Quarterly* (June), 1989, pp. 147-166.
- Tan, C., Benbasat, I., and Cenfetelli, R.T., "Understanding the Antecedents and Consequences of E-Government Service Quality: An Empirical Investigation", *Proceedings of Twenty Eighth International Conference on Information Systems, Montreal 2007*.

- Torkzadeh, G., and Dhillon, G. "Measuring factors that influence the success of Internet commerce," *Information Systems Research*, (13:2), 2002, pp.187–204.
- Thompson, R., Compeau, D., & Higgins, C. (2006). Intentions to use information technologies: An integrative model. *Journal of Organizational and End User Computing*, 18(3), 25–46.
- Venkataram, Meera P. and Linda L. Price, "Differentiating between Cognitive and Sensory Innovativeness: Concepts, Measurement, and Implications," *Journal of Business Research* (20), 1990, pp.293-315.
- Wang, W. and Benbasat, I. "Recommendation Agents for Electronic Commerce: Effects of Explanation Facilities on Trusting Beliefs," *Journal of Management Information Systems* (23:4), 2007.
- Weiss, H.M. and Cropanzano, R. "Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work," *Research in Organizational Behavior* (18), 1996, pp.1-74.
- Wood, Stacy L. and Joffre Swait. "Psychological Indicators of Innovation Adoption: Cross-Classification Based on Need for Cognition and Need for Change," *Journal of Consumer Psychology*, (12:1), 2002, pp.1-13
- Wulf, K. D., Schillewaert, N., Muylle, S., and Rangarajan, D. "The Role of Pleasure in Web Site Success," *Information and Management* (43:4), 2006, pp.1–13.
- Yale, L and Venkatesh, A. "Toward the Construct of Convenience in Consumer Research," *Advances in Consumer Research* (13), 1986, pp.403-408.
- Yang, Z. and Fang, X. "Online service quality dimensions and their relationships with satisfaction", *International Journal of Service Industry Management*, (15:3), 2004, pp. 302-326.
- Zeithaml, V. A. "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence", *Journal of Marketing* (52), 1988, pp. 2-22.