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There is increasing concern in academic research that conventional knowledge of services management may not adequately inform management in constructing an IT-driven services strategy to succeed in the emerging Electronic Mediated Environment (EME). Most services, in the traditional mode, are delivered through the mediation and assistance of knowledgeable human agents. In the context of services in the emerging EME, human agents are absent and are therefore not available to assist consumers. Services in the EME are consumed in the absence of mediating human agents. Since services in the traditional brick-and-mortar environment are mediated through human agents, past studies carried out in the traditional environment fail to provide insights into service convenience, service consumption experience and relational exchange in the context of services in the EME. Additionally, the extant information systems, marketing and consumer behavior research provides neither any analytical framework nor empirical assessment of service convenience, service consumption experience and relational exchange in the EME. To fill this gap in the information systems literature and provide insights into consumers' perception of services consumption and development of long-term exchange relationship between consumers and service providers in the EME, this dissertation examines how service convenience and service consumption experience affect long-term relational exchange in the EME. In this dissertation, services in the electronic mediated environment are defined as *any kinds of services that incorporate service convenience via electronic devices where the consumer interacts with an*

appropriate user interface for service consumption in an electronic mediated environment such as Web site, mobile phone, PDA, iPod, Virtual World Environment, etc., in order to gain a consumption experience and pursue desired benefits preferably on a long term basis.

Three studies comprise this dissertation. The first study investigates service convenience and its antecedents and consequents in terms of relational exchange in the EME. Service convenience is conceptualized as a second order construct with six convenience dimensions reflecting the process of online service consumption. An analytical framework is developed and tested to validate a comprehensive research model of service convenience and its antecedents and consequents, in the EME, leading to long-term exchange relationship between the consumers and service providers. The second study examines service consumption experience and relational exchange in the EME. Service consumption experience is conceptualized as a second order construct with five consumption experience dimensions. A research framework of service consumption experience and its antecedents and consequents in the EME is developed and validated. The third study analyzes the interrelationship between service convenience and service consumption experience. This study then presents a comprehensive research model of service convenience, service consumption experience, and relational exchange in the EME.

Analyses of data from 1,250 U.S. consumers, with at least six months or more experience in consuming services in the EME, reveal that both service convenience and service consumption experience are multidimensional concepts. All six service

convenience dimensions contribute to online consumers' overall perception of service convenience while the five service consumption experience dimensions significantly influence consumers' overall consumption experience in the EME. Service convenience and service consumption experience were also found to serve as important mediating variables between their antecedents and consequents respectively. The service convenience, along with service consumption experience, was found to be significant in developing long-term exchange relationship between consumers and service providers in the EME.

This dissertation contributes to information systems (IS) literature by being the first to develop service convenience and service consumption experience constructs in the EME. Additionally, this research also provides the analytical nomological network of important antecedents and consequents of both service convenience and service consumption experience. Furthermore, this dissertation informs managers on the development of an integrated service convenience and consumption experience strategy to meet consumers' requirements and expectations for long-term relationship development between consumers and services providers in the EME. Given the current service-based and information-driven economy and the role of services in the emerging EME, this dissertation significantly advances our knowledge by contributing to the extant IS research, related to services in the EME, in terms of theory development, empirical validation and insights for managerial practice.

**SERVICE CONVENIENCE, SERVICE CONSUMPTION
EXPERIENCE, AND RELATIONAL EXCHANGE IN
ELECTRONIC MEDIATED ENVIRONMENT (EME)**

by

Hua Dai

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This dissertation is dedicated with great love and appreciation to my parents Fucheng Dai and Zhilian Liu, and my husband Wei Zhao for their ongoing love, support, and encouragement.

APPROVAL PAGE

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TABLE OF CONTENTS

	Page
LIST OF TABLES.....	x
LIST OF FIGURES.....	xii
CHAPTER	
I. INTRODUCTION.....	1
1.1 Introduction and Overview of the Dissertation	1
1.2 Research Motivation.....	3
1.2.1 Significance of Service Economy	3
1.2.2 Significance of Service Convenience and Relational Exchange in the EME.....	4
1.2.3 Significance of Service Consumption Experience and Relational Exchange in the EME	6
1.3 Research Gap.....	7
1.4 Research Questions	10
II. LITERATURE REVIEW: SERVICE IN EME, SERVICE CONVENIENCE, SERVICE CONSUMPTION EXPERIENCE AND EXCHANGE RELATIONSHIP	11
2.1 Service in EME.....	11
2.1.1 Service Conceptualization	12
2.1.2 Definition of Service in the EME	13
2.2 Service Convenience	14
2.2.1 Service Convenience in Information Systems	15
2.2.2 Service Convenience in Marketing and Consumer Behavior Research.....	15
2.2.3 Service Convenience in Services Research	20
2.3 Service Consumption Experience.....	22
2.3.1 Conceptualization of Service Consumption Experience in the EME.....	22
2.4 Relational Exchange.....	33

III. SERVICE CONVENIENCE AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 1&2)	36
3.1 Proposed Research Framework	37
3.1.1 Dimensions of Service Convenience in the EME.....	38
3.1.2 Antecedents of Service Convenience in the EME	42
3.1.3 Consequents of Service Convenience in the EME	45
3.1.4 Summary of Hypotheses	49
3.2 Research Design	51
3.2.1 Measurement Instrument Development.....	51
3.2.2 IRB Approval.....	52
3.2.3 Survey Administration	52
3.2.4 Pre-Tests	53
3.2.5 Pilot Study and Preliminary Result.....	53
3.3 Data Analysis and Assessment of Proposed Research Model.....	57
3.3.1 Data Analysis Method.....	57
3.3.2 Sample Demographics	57
3.3.3 Measurement Validation	60
3.3.4 Testing the Structural Model	68
3.3.5 Summary of Results.....	70
3.4 Discussion.....	71
IV. SERVICE CONSUMPTION EXPERIENCE AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 3&4).....	75
4.1 Proposed Research Framework	76
4.1.1 Dimensions of Service Consumption Experience.....	76
4.1.2 Antecedents of Service Consumption Experience in the EME.....	80
4.1.3 Consequents of Service Consumption Experience in the EME.....	86
4.1.4 Summary of Hypotheses	90
4.2 Research Design	91
4.2.1 Measurement Instrument Development.....	92
4.2.2 IRB Approval.....	93
4.2.3 Survey Administration	93
4.2.4 Pre-Tests	94
4.2.5 Pilot Study and Preliminary Result.....	94
4.3. Data Analysis and Assessment of Proposed Research Model.....	99

4.3.1 Data Analysis Method.....	99
4.3.2 Sample Demographics	100
4.3.3 Measurement Validation.....	102
4.3.4 Testing the Structural Model	111
4.3.5 Summary of Results.....	114
4.4 Discussion.....	116
V. SERVICE CONVENIENCE, SERVICE CONSUMPTION EXPERIENCE, AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 5&6)	120
5.1 Proposed Research Framework	120
5.1.1 Foundation and Description of Research Framework	120
5.1.2 Summary of Hypotheses	124
5.2 Research Design	125
5.3 Data Analysis and Assessment of Proposed Research Framework	126
5.3.1 Data Analysis Method.....	126
5.3.2 Sample Demographics	126
5.3.3 Measurement Model Validation	126
5.3.4 Testing the Structural Model	138
5.4 Discussion.....	142
VI. CONCLUSION.....	146
6.1 Introduction	146
6.2 Research Contribution	147
6.2.1 Significance of Research to Academicians.....	147
6.2.2 Significance of Research to Practitioners	148
6.3 Limitations.....	151
6.4 Future Research	153
REFERENCES	156
APPENDIX A. INSTRUMENT (PAPER-BASED AND ONLINE VERSION).....	173
APPENDIX B. IRB APPROVAL	183
APPENDIX C. CONSENT FORM	185

APPENDIX D. PROJECT DESCRIPTION SUBMITTED TO IRB, UNCG.... 187

LIST OF TABLES

	Page
Table 2.1: Review of Service Convenience Conceptualizations in the Extant Literature	18
Table 2.2: Relevant Dimensions of Service Convenience in the Context of E-Service Quality in Service Research	21
Table 2.3: Literature Review on Consumption Experience.....	23
Table 3.1: Hypotheses Relate to Antecedents of Service Convenience	50
Table 3.2: Hypotheses Relate to Consequents of Service Convenience.....	50
Table 3.3: Results of Reliability Tests for Pilot Study	55
Table 3.4: Descriptive Statistics of Respondents Characteristics (n=1250).....	59
Table 3.5: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct.....	61
Table 3.6: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs	63
Table 3.7: Summary of Hypotheses Tests and Results (Antecedents)	70
Table 3.8: Summary of Hypotheses Tests and Results (Consequents).....	71
Table 4.1: Hypotheses Related to Antecedents of Service Consumption Experience.....	90
Table 4.2: Hypotheses Related to Consequents of Service Consumption Experience	90
Table 4.3: Results of Reliability Tests from the Pilot Study	96
Table 4.4: Descriptive Statistics of Respondents Characteristics (n=1250).....	101
Table 4.5: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct.....	103
Table 4.6: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs	105

Table 4.7: Summary of Hypotheses Tests and Results (Antecedents)	114
Table 4.8: Summary of Hypotheses Tests and Results (Consequents).....	115
Table 5.1: Proposed Hypotheses.....	124
Table 5.2: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct.....	128
Table 5.3: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs	129
Table 5.4: Items Loadings for First Order Constructs and Second Order Construct.....	132
Table 5.5: Summary of Hypotheses Tests and Results.....	141

LIST OF FIGURES

	Page
Figure 3.1: Proposed Research Model of Service Convenience in the EME and its Antecedents and Consequents Related to the Development of Long Term Exchange Relationship	38
Figure 3.2: Service Convenience dimensions	42
Figure 3.3: Formative Relationships between First-Order Constructs and Second-Order Construct.....	68
Figure 3.4: PLS Results for Structural Model	69
Figure 4.1: Service Consumption Experience Dimensions	77
Figure 4.2: Proposed Research Model of Service Consumption Experience in the EME and its Antecedents and Consequents Related to the Development of Long Term Exchange Relationship	85
Figure 4.3 Formative Relationships between First-Order Constructs and Second-Order Formative Construct of Service Consumption Experience	111
Figure 4.4: PLS Results for Structural Model	113
Figure 5.1: Proposed Research Framework of Service Convenience and Service Consumption Experience in the EME and their Antecedents and Consequents Related to the Development of Long Term Exchange Relationship.....	124
Figure 5.2 Formative Relationships between First-Order Constructs and Second-Order Constructs	137
Figure 5.3: PLS Results for Structural Model	139

CHAPTER I

INTRODUCTION

1.1 Introduction and Overview of the Dissertation

This dissertation is divided into six chapters. The first chapter introduces the topic of the dissertation and depicts the importance of this study in the context of the current competitive business environment. This chapter presents the motivation for this dissertation, provides an overview of the theoretical foundation for research development and considers the research questions. It then outlines the three studies addressing the research questions considered in this dissertation.

The second chapter reviews the current research on service convenience, service consumption experience, and relational exchange in the Electronic Mediated Environment (EME) drawing from the literature in IS, marketing, consumer behavior, and service research. Services in the electronic mediated environment is defined in this dissertation as *any kinds of services that incorporate service convenience via electronic devices where the customer interacts with an appropriate user interface for service consumption in an electronic mediated environment such as Web site, mobile phone, PDA, iPod Virtual World Environment, etc. in order to gain a consumption experience and pursue desired benefits preferably on a long term basis.* Theories related to service

convenience, service consumption experience and relational exchange are reviewed to lay the foundation for research in this dissertation.

Chapter three presents **Study I** in this dissertation. Service convenience has been conceptualized as a second order construct with six convenience dimensions reflecting the process of online service consumption. The theoretical research model is developed to identify the antecedents and consequents of service convenience. Relationships among these constructs are considered and hypotheses are proposed. The survey methodology is adopted for empirical validation of the research model. The measurement development, data collection, descriptive statistics, measurement validation, structural model tests, and results, related to Study I, are discussed in this chapter.

Chapter four presents **Study II** in which service consumption experience in the EME is conceptualized as a second order construct with five consumption experience dimensions. The analytical framework for the service consumption experience and its antecedents and consequents is proposed. The survey method is employed to test the research model in Study II. The methodology, research model assessment, and results are discussed.

Chapter five presents **Study III** which investigates a comprehensive model of service convenience, service consumption experience, and relational exchange in the EME. The survey methodology is adopted to empirically validate the proposed comprehensive research framework.

Finally, chapter six concludes the dissertation. The limitations and contributions to IS research and practice are also presented in this chapter.

1.2 Research Motivation

The following section presents the significance of the Service Economy in the EME. The importance of Service Convenience and Service Consumption Experience in the EME is then discussed.

1.2.1 Significance of Service Economy

The scale and the pace of the service sector growth have been dramatic over the last 50 years (Chesbrough and Spohrer, 2006). The services industry accounted for 77.8 percent of U.S. gross domestic product in 2005 (IBM, 2008). The services sector dominates economic activity in most advanced industrial economies in terms of both the amount of value added and numbers of employees (Abe, 2005). The era of the service economy has arrived. Information technology (IT) has become a major driving force for service innovations, speedy delivery and backroom service infrastructure (Rust and Miu, 2006). This is reflected by the increasing concern in the academic research that the traditional knowledge on services management is not readily adaptable to the services strategies in the EME (Lovelock and Gummesson, 2004). This is because “*the ability to obtain and consume services without interacting with a human provider challenges much of our existing knowledge*” (Brown, 2000, pg.62). In addition, Rust and Kannan (2003) have pointed out that this new paradigm for services in the EME “*represents a coherent point of view that challenges many of the traditional assumptions about how to use this electronic mediated environment to raise profits*” (pg.37).

One of the major outcomes of the new economy, in the context of the EME, is the emergence of the customer-centric approach in the marketing competition (Rust and Kannan, 2003). Although the service innovation facilitated by IT provides companies with a more efficient and effective way to sell and deliver their services (Zysman, 2006), it is the consumers, who receive and consume these services and ultimately decide about the quality of the services and the prospect of developing a long term relationship with the service providers.

1.2.2 Significance of Service Convenience and Relational Exchange in the EME

Meuter *et al.* (2000, pg. 24) have pointed out that “*Technology is a key adjunct to service system design.*” Online technology provides consumers with more options to choose the mode of service—traditional employee service or self-service (Berry *et al.*, 2002). This choice and flexibility improve consumers’ convenience perceptions of using or buying services. Furthermore, the advances in electronic devices make it possible for consumer shopping and using online services at anytime and anywhere. In conceptualizing the use of technology or online services, the Technology Acceptance Model (TAM) has been widely adopted in the IS literature (Davis, 1989; Venkatesh *et al.*, 2003; Tan *et al.*, 2007). Although these studies provide significant insights into online services and their value to consumers, they do not address the role of service convenience in the context of developing a long term exchange relationship between the consumers and the service providers.

Garbarino and Johnson (1999) suggest that the development of long term exchange relationship with consumers provides service providers with a loyal and committed customer base which generates revenue streams that are more dependable in the long run. Therefore, it is in the interest of the service providers to seek and develop long term exchange relationships with consumers by providing effective services in the EME.

Service convenience has been identified in the literature as one of the most important patronage determinants (Kelly, 1958), a direct and intuitive measure for consumers to evaluate service providers' performance. Service convenience is one of the most critical considerations for most consumers when making purchase decisions (Berry *et al.*, 2002). Marketing literature has acknowledged that there is a steady increase in consumer demand for service convenience (Yale and Venkatesh, 1986; Berry *et al.*, 2002; Seiders *et al.*, 2007). By extending previous definitions of E-Service (Rust and Lemon, 2001; Fassnacht and Koese, 2006), this dissertation defines, the services in the EME as *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, PDA, iPod Virtual World Environment, etc. in order to gain a consumption experience and pursue desired benefits preferably on a long term basis.* This definition implies four important characteristics of the electronic mediated services. First, it captures a broad sense of electronic services by including all types of electronic media; second, the core offering of IT based self-service must be considered by service providers to deliver the benefits that consumers seek (Fassnacht

and Koese, 2006; Dabholkar, 1996); third, it adds two important dimensions to the existing definition of e-service: convenience and experiential consumption; last, the relational exchange is embedded in this conceptualization which has not been investigated in any prior literature in the context of services in the EME.

1.2.3 Significance of Service Consumption Experience and Relational Exchange in the EME

Business and consumer activities were increasingly driven and mediated by IT. Three major characteristics have been identified to distinguish consumption activities in the current business environment: the omnipresence of IT, the supremacy of the brand, and the ubiquity of communication and entertainment (Schmitt, 1999). IT and electronic devices allow consumers and business vendors to connect and share an experiential universe with each other where companies provide and enhance consumer experience rather than functional characteristics; the ubiquity of communication and entertainment compels the companies to offer “customer-oriented” consumption experiences (Schmitt, 1999; Zysman, 2006). These three phenomena make it clear that the Experiential Economy has arrived and is here to stay (Pine and Gillmore, 1998 and 1999).

Services are essentially “*value jointly created through the interaction of providers and clients*” (IBM, 2005). The three most important features of a service are co-creation of value, relationship, and provision (IBM, 2008). The consumer is considered as a co-producer in the service consumption process and is intimately involved in defining, shaping, and integrating the service; therefore, such interactions between consumers and service providers are built around episodic experiences (Chesbrough and Spohrer, 2006).

Today services are delivered with recognition that the consumers' experience is formed across all moments of contact with the firm (Sousa, and Voss, 2006). In this experiential economy, companies and service providers are wrapping experiences around traditional offerings to sell them better. They will find that the next competitive battleground lies in staging experience and *“business success will be bestowed upon companies who are able to embrace and deliver compelling and emotionally engaging customer experience—everyday, for all customers, every time”* (Pine and Gilmore, 1998, pg5).

However, the transition from selling the service to selling the experience is not easy. Before a company can charge admission, it must design an experience that consumers judge to be worth the price. The experiences have to meet consumers' needs and they eventually have to work and be deliverable (Pine and Gilmore, 1998 and 1999). Today, the fast advancement and the large expansion of IT in business functions and the high dependence on IT in the service delivery system add more complexity in service innovation in the process of meeting consumers' demand. Therefore, understanding the unique characteristics of the consumption experience of the services in the EME would help companies design, stage and provide better online services to consumers, ultimately, helping both services providers and consumers to achieve the envisioned benefits and build mutual exchange relationships in the EME.

1.3 Research Gap

Berry *et al.* (2002) define service convenience as the nonmonetary costs or expenditures experienced when consumers spend time and effort buying and consuming

goods or services. Previous literature in the marketing and traditional service research has identified service as an intangible form of goods which possesses several unique characteristics—intangibility, heterogeneity, inseparability, and perishability (Parker, 1960; Regan, 1963; Rathmell, 1974; Lovelock and Gummesson, 2004). Various aspects such as service quality, service relationship, and service profitability are reflected in economic, market, and service research (Oliver, 1980; Zeithaml *et al.*, 1996, Reinartz, 2005; Rust and Miu, 2006). Among these studies, the service convenience construct has received insufficient attention. Several early attempts in the IS and marketing literature either treated service convenience as a general construct or a compounding concept with other constructs (Baty and Lee, 1995; Bhatnagar *et al.*, 2000; Hej *et al.*, 2003). However, there is little or no research in the extant IS literature that provides an analytical framework that addresses the comprehensive view of service convenience and its antecedents and consequents in the EME.

The consumption experience concept has been studied in the marketing and consumer behavior literature since the 1980's. The majority of the studies focus solely on the emotion or hedonic dimension of consumption experience. Interestingly, almost all studies investigated consumers' consumption experiences in the traditional business environment and did not differentiate the product consumption from service consumption. In the IS literature, measuring consumers' acceptance to adopt electronic services has been a significant part of electronic service research. On the basis of the technology acceptance model (TAM) and the theory of reasoned action (TRA), many adjusted models were developed to measure the acceptance of technology and services by the

users in the EME (Davis *et al.*, 1989, Bruner and Kumar, 2003, Venkatesh *et al.*, 2003). These studies primarily focus on the consumers' perceptions or preferences for using certain types of service in the EME. It is not sufficient to just understand consumers' perception to generate corresponding services in this value creation process. Clearly, it is more important to develop a deeper understanding of how such value transfers to the development of long term relationship. Consumer behavior research indicates that business success during the upcoming decade will not be determined by quality, reliability, pricing, brand or other traditional differentiators, but more importantly by the consumer consumption experience (Chesbrough and Spohrer, 2006; Pine and Gilmore, 1998; Shaw and Ivens, 2005). Consumer value entails subjective hierarchical preferences based on an individual's situation-specific comparisons of one object with another. Such interactive relativistic preferences shape the essence of the consumption experiences that underlie the creation of all customer value in the sense that products perform the services that provide the relevant value-creating experiences (Holbrook, 2006). Therefore, understanding the consumption experience in certain types of services in the EME will help companies design, stage and provide better service experiences to consumers and it will ultimately enable both services providers and consumers to achieve mutual benefits and build mutual exchange relationships on a long term basis.

Little or no research has been directed at understanding the underlying logic inter-connecting service convenience, service consumption experience, and long term exchange relationship between consumers and service providers in the EME. Therefore, the purpose of this dissertation is to investigate and empirically assess three research

frameworks: (1) service convenience and its antecedents and consequents in the EME; (2) service consumption experience and its antecedents and consequents in the EME; (3) a comprehensive model of service convenience, service consumption experience, and long-term exchange relationships in the EME.

1.4 Research Questions

Given the prior discussion and review of the extant IS, marketing and service literature and the importance of service convenience, service consumption experience, and relational exchange in the EME, this dissertation proposes the following six research questions in this dissertation:

1) What are the dimensions of service convenience in the EME? Can service convenience in the EME be conceived at a higher level of abstraction as a second order factor for building a more parsimonious theory of the role of service convenience in relational exchange?(Study I)

2) What is the role of service convenience in the development of long term exchange relationship in the consumption of services in the EME? (Study I)

3) What are the dimensions of service consumption experience in the EME? Can service consumption experience in the EME be conceived at a higher level of abstraction as a second order factor for building a more parsimonious theory of the role of service consumption experience in relational exchange?(Study II)

4) What is the role of service consumption experience in the development of long term exchange relationship in the EME? (Study II)

5) What is the relationship between service convenience and service consumption experience in the EME? (Study III)

6) How does service convenience in conjunction with service consumption experience affect long-term exchange relationship in the EME? (Study III)

CHAPTER II

LITERATURE REVIEW: SERVICE IN EME, SERVICE CONVENIENCE, SERVICE CONSUMPTION EXPERIENCE AND EXCHANGE RELATIONSHIP

The primary objective of this dissertation is to investigate the service convenience and service consumption experience and their role in developing long term exchange relationships between the consumers and service providers in the EME. From this perspective, this chapter explores the existing body of literature in the following areas to lay the foundation to address the six research questions presented in chapter I:

- Literature on service conceptualization
- Literature on service in the EME
- Theories of Service Convenience
- Theories of Service Consumption Experience
- Theories of Relational Exchange

2.1 Service in EME

The following section reviews service conceptualization in the literature related to IS, marketing, consumer behavior, service, and economics, and then presents the definition of service in the EME.

2.1.1 Service Conceptualization

Services are essentially “*value jointly created through the interaction of providers and clients*” (IBM, 2008). Various approaches to the conceptualization of services can be found in the economics, marketing, and service research. In the economics literature, service is defined as “*a change in the condition of a person, or a good belonging to some economic entity, brought about as the result of the activity of some other economic entity, with the approval of the first person or economic entity*” (Hill, 1977, pg.318). In marketing research, services are not things (Shostack, 1987); services in the extreme are deeds, processes, and performances (Zeithaml & Bitner, 2000). Emerging service studies have extended the service definition as the application of specialized competences (skills and knowledge) through deeds, processes and performances for the benefits of another entity or the entity itself (self-service) (Vargo and Lusch, 2004).

Rathmell (1966) noted that most marketers have some understanding of “*the term “good” which are tangible economic products that are capable of being seen and touched and may or may not be tasted, heard, or smelled*”; however, “*the term “service” seem to be everything else*” (pg.4). Vargo and Lusch (2004) argued that goods and services are not mutually exclusive (tangible vs. intangible) subsets of a common domain. Lovelock and Gummesson (2004) posit an alternative view and have indicated that unlike goods in a transfer of ownership from sellers to buyer, services offer benefits through access or temporary possession, instead of ownership, with payments taking the form of rentals or access fees.

With advanced developments in IT, some scholars have expressed concern that existing services paradigms are not readily applicable to the services on the Internet (Lovelock and Gummesson, 2004). Thus, there is an urgent need for a clear understanding of services, consumer perceptions of services, and the development of exchange relationships between the service providers and consumers in the EME in the digital economy.

2.1.2 Definition of Service in the EME

Services in EME possess all the characteristics of traditional services. Extant research presents different kinds of electronic services (E-Service). Yet there is no consensus on the definition of service in the EME. The majority of earlier research has conceptualized the electronic services as service over the Internet. Several other studies have taken a broader view that covers various electronic services including online shopping, electronic banking, information services, and online contacts with customer services agents online (Yang *et al.*, 2003; Rust and Kannan, 2003). Therefore, several relevant concepts have appeared in prior literature: IT services, Web services, and infrastructure services. Rust *et al.* (1996) pointed out that e-services encompasses the service product, service environment, and service delivery that comprise any business model, whether it belongs to a goods manufacturer or a pure service provider. There is a recent study on e-service quality which provides a more general definition of electronic services, which are “*the services delivered via information and communication technology where the customer interacts solely with an appropriate user interface*”

(automated teller machine or Web site) in order to retrieve desired benefits” (Fassnacht and Koese, 2006, pg.23).

By extending a previous definition of E-Service (Rust and Lemon, 2001; Fassnacht and Koese, 2006), this research define the services in the EME as *any kinds of service that incorporates service convenience via electronic devices where the customer interacts with an appropriate user interface for service consumption in an EME such as Web site, mobile phone, PDA, iPod, Virtual World Environment, etc., in order to gain a consumption experience and pursue desired benefits preferably on a long term basis.* This definition implies four important characteristics of the electronic mediated services. First, it captures a broad sense of electronic services by including all types of electronic media; second, the core offering of technology based self-service must be considered by service providers in order to deliver the benefits that the consumer seeks (Fassnacht and Koese, 2006; Dabholkar, 1996); third, it adds two important dimensions to the existing definition of e-service: convenience and experiential consumption; last, the relational exchange is embedded in this conceptualization which has not been considered in any prior literature.

2.2 Service Convenience

Given the central focus on service convenience in this research, author reviews the literature on service convenience from IS, Consumer Behavior, Marketing, and Service to provide a context for this study.

2.2.1 Service Convenience in Information Systems

The service convenience construct has been generally treated as a concept with the same meaning as easiness. The easiness has been reflected as a main indicator of the consumer's intention to use a certain type of service: online education, telemedicine service, online broker service, electronic marketplace, etc (Davis *et al.*, 1989; Subramanian, 1994; Hu *et al.*, 1999; Taylor and Todd, 1995; Lucas and Spittler, 1999; Venkatesh and Davis. 1996; Pavlou and Gefen, 2004).

IS research has mixed service convenience with other concepts such as service speed (Compaine and Weinraub, 1997; Aladwani, 2001), customer comfort (Chen and Hitt, 2002; Bhattacharjee, 2001), customer effort (Shim *et al.* 2002; Saeed *et al.*, 2005; Parasuraman, 2000), and service accessibility (Rust and Kannan, 2003; Wixom, and Todd, 2005).

Service convenience is evidently an unexplored area in IS research. There is no published study that has either given the clear definition or sufficient attention to service convenience. Furthermore, there is a lack of research in the IS literature to provide an integrated view at a higher level of abstraction of service convenience for building a more parsimonious theory of service incorporating service convenience as part of consumption process in terms of developing long-term mutual relationships in the EME.

2.2.2 Service Convenience in Marketing and Consumer Behavior Research

The concept of convenience has been discussed in the marketing and consumer behavior literature over the last century. The original idea was proposed by Copeland

(1923) who suggested a classification of consumer products in which convenience goods were defined as “*intensively distributed products that require minimal time and physical and mental effort to purchase*” (Yale and Venkatesh, 1986; Berry *et al.*, 2002). Later, Holton (1958) defined convenience goods as those consumer goods which the consumers usually purchase frequently, immediately, and with a minimal effort. Several similar conceptualizations of convenience can be also found in early marketing literature (Bucklin, 1963; Jolson and Proia, 1976; Murphy and Enis, 1986). In these studies, certain definitions only consider convenience as one category in product classification. Most of these studies only focused on convenience goods or convenience foods (Brown, 1990). There is no consideration of convenience as an attribute of a product, and more explicitly for services.

Several early endeavors have been devoted to conceptualizing convenience as an important attributes for both services and products. Kelly (1958, pg.32) introduced a convenience cost concept in a consumer purchasing study and indicated that “*convenience costs are incurred through the expenditure of time, physical and nervous energy, and money required to overcome the frictions of space and time, and to obtain possession of goods and services.*” Similar discussions of consumers’ time and effort costs in purchasing a product or services have been developed to incorporate convenience as an attribute to reduce nonmonetary costs of goods or services (Kotler and Zaltman, 1971, Etgar, 1978; Nickols and Fox, 1983)

More recently, convenience is acknowledged as a multidimensional construct in the marketing and consumer research literature (Yale and Venkatesh 1986; Brown 1990;

Seiders *et al.*, 2000; Berry *et al.*, 2002; Seiders *et al.*, 2007). Yale and Vekatesh (1986) posit that convenience captures five dimensions: spatial, psychological, sociological, philosophical, and situational. They further developed conventional classes of consumer perceived convenience which are time utilization, accessibility, portability, appropriateness, handiness, and avoidance of unpleasantness. Brown (1990) identified five dimensions of the convenience construct in the context of applying economic utility theory and indicated that consumers desire convenience in terms of time, place, acquisition, use, and execution. In the shopping context, Seiders *et al.* (2000) indicated retail convenience means the ease and speed of shopping and suggested four main ways to improve convenience in consumers' entire shopping experience: access, search, procession, and transaction. Building upon prior theories on time and efforts expenditure and consumer psychological cost, Berry *et al.* (2002) proposed five dimension of service convenience: decision convenience, access convenience, transaction convenience, benefit convenience, and post-benefit convenience. Later, Seiders *et al.* (2007) developed the SERVCON scale and empirically validated the service convenience construct in the context of traditional service consumption in a brick-and-mortar environment.

Table 2.1 summarized the service convenience definitions that have been investigated in prior marketing and consumer behavior literature. According to this summary, service convenience has been frequently defined as a construct that consumers try to achieve with minimal time and effort. A large portion of the prior studies focused only on the time saving aspect. Others mixed concepts of convenience goods and services. *“The problem with the counterintuitive findings may be due to insufficient theoretical*

development of the convenience constructed—development that descriptive, phenomenological analyses often yield” (Gehrt and Yale, 1993, pg165). Since none of these past studies investigate the relational exchange component for service convenience in the EME, this study will develop a multi-dimensional construct for service convenience in a nomological network including relational exchange outcomes.

Table 2.1: Review of Service Convenience Conceptualizations in the Extant Literature

Literature	Definition
Copeland (1923)	<i>“Classified as one category of consumer goods: convenience goods which is defined as “intensively distributed products that require minimal time and physical and mental effort to purchase.”</i> (pg.282)
AMA(1948)	<i>“Those consumer goods which the consumers usually purchase frequently, immediately, and with a minimum of effort.”</i> (Yale and Venkatesh, 1986, pg.403).
Holton (1958)	<i>“A convenience good has been considered by consumer based on their perception of the probable gain from making price and quality comparisons among alternative sellers.”</i> (pg.53)
Kelly (1958)	<i>“Consumer making shopping decisions achieve an equilibrium between commodity costs and convenience costs,..., convenience costs are incurred through the expenditure of time, physical and nervous energy, and money required to overcome the frictions of space and time, and to obtain possession of goods and services.”</i> (pg.32)
Bucklin(1963)	Convenience goods: <i>“Those goods for which the consumer regards the probable gain from making price and quality comparison as small compared to the cost of making such</i>

Literature	Definition
	<i>comparison.</i> ” (pg.51)
Michael and Becker(1973)	“ <i>Consumer buy time in the form of certain consumer goods and services which are all in some measure time-savers.</i> ” (pg.388)
Murphy and Enis (1986))	“ <i>Convenience products/services are defined as lowest in terms of both effort and risk. That is, the consumer will not spend much money or time in purchasing these products, nor does he/she perceive significant levels of risk in making a selection.</i> ”(pg.25)
Kotler and Zaltman(1971)	Convenient solution: “ <i>The social product is based on the assumption that members of a target audience perform a cost-benefit analysis when considering the investment of money, time, or energy in the issue</i> ”(pg.12)
Douglas (1976)	“ <i>Products and services were defined as "convenience" insofar as they enabled women to economize on time devoted to the performance of meal preparation and other household tasks.</i> ”(pg.13)
Gehrt and Yale(1993)	“ <i>The content of individual’s self-reported convenience experience beyond time-oriented concerns.</i> ”(pg.166)
Strobe and Weinberg (1977)	Convenience relates to the purchase of time-saving durables.
Schaninger and Allen (1981)	Convenience oriented household is affected by time pressures and work-related stresses, altered sex-role norms, social class and social mobility, and work-related consumption requirement.
Nickols and Fox (1983)	Convenience is achieved by reducing time pressure through purchase of convenience products, services, and paid household workers.
Reilly (1982)	Convenience relates to time-saving durable ownership.
Yale and Vekatesh (1986)	Convenience captures five dimensions including spatial dimension, psychological dimension, sociological dimension,

Literature	Definition
	philosophical dimension, and situational dimension. conventional classes of consumer perceived convenience which are time utilization, accessibility, portability, appropriateness, handiness, and avoidance of unpleasantness
Brown(1990)	Five dimensions of convenience construct: time, place, acquisition, use, and execution.
Seiders <i>et al.</i> (2000)	Retail convenience means the “ <i>ease and speed of shopping and suggested four main ways to improve convenience in consumers’ entire shopping experience: access, search, procession, and transaction.</i> ” (pg.80)
Berry <i>et al.</i> (2002)	Five dimension of service convenience: decision convenience, access convenience, transaction convenience, benefit convenience, and post-benefit convenience.
Seiders <i>et al.</i> (2007)	“ <i>Customers perceive time and effort costs associated with service purchase or use decisions (decision convenience), initiating service delivery (access convenience), experiencing the core benefits of the offering (benefit convenience), finalizing the transaction (transaction convenience), and reestablishing subsequent contact with the firm (post-benefit convenience)</i> ”(pg.145)

2.2.3 Service Convenience in Services Research

The concept of service convenience has been considered as one of the components of e-service quality in the services literature. There is no clear definition of service convenience, the concepts such as ease of use, response time, process speed, on-time delivery, and customer support have been frequently discussed in the e-service

quality literature (Zeithaml *et al.*, 2002; Lociacono *et al.*, 2002; Yoo and Donthu, 2001; Wolfenbarger and Gilly, 2002; Li *et al.*, 2002; Parasuraman *et al.*, 2005; Collier and Bienstock, 2006; Gummerus *et al.*, 2004; Fassnacht and Koese, 2006). This dissertation identifies in Table 2.2 the relevant dimensions of service convenience in the context of e-service quality in service research.

Table 2.2: Relevant Dimensions of Service Convenience in the Context of E-Service Quality in Service Research

Literature	Relevant Dimensions of Service Convenience
Lociacono <i>et al.</i> (2000)	Response time, ease of use
Zeithaml <i>et al.</i> (2002)	Efficient and effective shopping, purchasing, and delivery of products and services
Yoo and Donthu (2001)	Ease of use, processing speed, interactive responsiveness
Wolfenbarger and Gilly (2002)	Fulfillment, customer service
Li <i>et al.</i> (2002)	Responsiveness
Collier and Bienstock (2006)	Ease of use, order timeliness, recovery quality
Gummerus <i>et al.</i> (2004)	Fulfillment, customer service
Fassnacht and Koese (2006)	Delivery quality: ease of use; Outcome quality: functional benefits and emotional benefits

2.3 Service Consumption Experience

This section reviews the literature on the conceptualizations and dimensions of Service Consumption Experience. Utilizing current consumption experience theory, this study then provides the definition of service consumption experience in the EME.

2.3.1 Conceptualization of Service Consumption Experience in the EME

Marketing and consumer behavior literature began to explore the consumption experience concept with Holbrook and Hirschman's seminal article in 1982. In their research, experience aspects of consumption have been conceptualized as "*involving a steady flow of fantasies, feelings, and fun; Consumption is regarded as a primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and esthetic criteria*" (Holbrook and Hirschman, 1982, pp.20). Since then, numerous studies in the marketing, retailing, and consumer behavior research conceptualized and investigated the constitution of consumer perceptions of consumption experience (Table 2.3). Based upon the literature review, service consumption experience has been confirmed as a multidimensional construct; however, the majority of existing studies focus solely on the emotion aspect. In addition, most of prior studies only consider consumption experience in traditional physical environment. The detailed definitions, dimensions, and research context of service consumption experience are summarized in Table 2.3.

Table 2.3 Literature Review on Consumption Experience

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Holbrook <i>et al.</i> (1984)	Journal of Consumer Research	Playful Consumption Experience: “ <i>Consumer’s behavior includes hedonic elements of fantasies, feeling and fun that deserve to be examined in their own right, apart from whatever direct connection they may have with purchasing decisions.</i> ” (pg.728)	Personality, type of game, performance, and emotions	“Product” in traditional business environment
Schlosser (2003)	Journal of Consumer Research	Experience in virtual world: Objective interactivity allows consumers directly manipulate object in virtual world	Cognitive elaboration and mental imagery	“Product” in virtual business environment
Chaudhuri (1997)	Journal of Business Research	Consumption Emotion: “ <i>consumer’s knowledge by acquaintance of products and services during the consumption experience</i> ” (pg.82)	Positive feeling, negative feeling	“Product & Services” in traditional Business environment
Addis and Holbrook (2001)	Journal of Consumer Behavior	Consumption experience: “ <i>consisting two phases: the relationship between consumer and firm and the use of core product</i> ” (pg.53)	Utilitarian experience and hedonic experience	“Product” in traditional business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Hirschman (1984)	Journal of Business Research	Consumption: the process which provides the individual with cognitive and sensory experiences	Cognitive stimulation, sensory stimulation, novel stimulation	“Product & Services” in traditional Business environment
Mathwick et al. (2002)	Journal of Retailing	Consumer perceptions of experiential value: “a perceived, realistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose.”(pg.53)	Efficiency, economic value, intrinsic enjoyment, escapism, visual appeal, entertainment, and service excellence	“product” in online and traditional business environment
Hirschman and Holbrook (1982)	Journal of Marketing	Hedonic Consumption: “Hedonic consumption designates those facets of consumer behavior that relate to the multisensory, fantasy and emotive aspects of one’s experience with products.” (pg.92)	Multisensory, fantasy, emotive aspects	“Product” in traditional business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Holbrook and Hirschman (1982)	Journal of Consumer Research	Experiential aspects of consumption: <i>“Consumption has begun to be seen as involving a steady flow of fantasies, feelings, and fun. Consumption is regarded as a primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and esthetic criteria.”</i> (pg.132)	System perspective of experience: environmental input, consumer inputs, intervening responses, and output consequence.	“Product” in traditional business environment
Mano and Oliver (1993)	Journal of Consumer Research	Product-Consumption-Elicited-Experience: Pleasantness and arousal are two primary dimensions of affect; Post-consumption experience: evaluation, feeling, and satisfaction	Pleasantness, arousal	“Product” in traditional business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Richins (1997)	Journal of Consumer Research	Emotions in Consumption Experience: <i>“a valenced affective reaction to perceptions of situations”</i> (pg.127)	Anger, discontent, Worry, sadness, fear, shame, envy, loneliness, romantic love, love, peacefulness, contentment, optimism, joy, excitement, surprise, guilty.	“ Product & Services” in traditional Business environment
Havlena and Holbrook (1986)	Journal of Consumer Research	Consumption Experiences: mix of utilities/hedonic, tangible/intangible, or objective/subjective components; Emotional aspects of consumption experiences occur in almost all consuming situations.	Two typologies: Merhrbian- Russell (Pleasure, arousal, dominance) Vs. Plutchik: (Fear, anger, joy, sadness, disgust, acceptance, expectancy, surprise)	“ Product & Services” in traditional Business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Schmitt (1999)	Journal of Marketing Managem ent	Experiential marketing: “ <i>view customers as rational and emotional human beings who are concerned with achieving pleasurable experiences.</i> ” (pg.53)	Sensory experience, affective experience, creative cognitive experiences, physical experience, behaviors and lifestyle	“Product & Services” in traditional and electronic business environment
Firat (1987)	Advances in Consumer Research	Consumption Patterns: “ <i>A set of relationships and experiences a consumer becomes involved in during the act of consumption.</i> ” (pg.342)	Social relationship, domain of availability, level of participation, human activity.	“Product” in traditional business environment
Fornell (1985)	Managem ent Science	Consumptions: the production of experiences from products		“Product” in traditional business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Caru and Cova (2006)	Journal of Consumer Behavior	Immersion in consumption experience: <i>“the immersion concept literally implies becoming one with the experience and therefore conveys the idea of a total elimination of the distance between consumers and the situation, the former being plunges in a thematised and secure spatial enclave where they can let themselves go.”</i> (pg.5)		“Service in traditional” business environment
Oliver (1994)	Advances in Consumer Research	Affective response: <i>“well specified by positive and negative affect and arousal which combine into states which describe more complex affects such as delight”</i> (pg.17)	Positive/negative affect, arousal	“Service in traditional” business environment
Unger and Kernan (1983)	Journal of Consumer Research	Leisure: multidimensional construct consisting six major subjective conditions	Intrinsic satisfaction, perceived satisfaction, perceived freedom, involvement, arousal, mastery, and spontaneity	Traditional business environment (Play cards)

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Menon and Kahn (2002)	Journal of Retailing	Arousal and pleasure: Two orthogonal dimensions of affect. <i>“Pleasure refers to the degree to which a person feels good, joyful, happy, or satisfied in a situation; arousal refers to the degree to which a person feel stimulated, active, or alert”</i> (pg.32).	Arousal, pleasure	“Product” Online business environment
Kozinets (1999)	European Management Journal	Virtual communities of consumption: <i>“afflictive groups whose online interaction are based upon shared enthusiasm for, and knowledge of, a specific consumption activity or related group activities.”</i> (pg.253)		Virtual business environment
Pine and Gilmore (1998)	Harvard Business Review	Experience: <i>“ An experience occurs when a company intentionally uses services as the stage and goods as props, to engage individual customers in a way that creates a memorable event”</i> (pg.98)	Customer participation, environmental relationship	“ Product and Service” in Traditional and online business environment
Ethier <i>et al.</i> (2006)	Information and Management	Affect: <i>“ A set of specific mental process including feelings, moods, and emotions”</i> (pg.628)	Liking, joy, pride, dislike, frustration, fear	“Product” Online business environment

Author(s) and Year	Journal	Definition	Dimensions	Research Context
Mathwick <i>et al.</i> (2001)	Journal of Retailing	Experiential value perception: “ <i>based upon interactions involving either direct usage or distanced appreciation.</i> ” (pg.41)	Customer return in investment, service excellence, playfulness, aesthetic appeal	“Product and Services” in Traditional and online business environment
Van der Heijden (2004)	MIS Quarterly	Value of a hedonic system : a Function of the degree to which the user experiences fun when using the system.	Perceived enjoyment specifies the extent to which fun can be derived from using the system as such	Hedonic information system
Luong (2005)	Journal of Service Research	Mood: “subjective feeling states that are broader, are longer lived, and do not have specifiable causes” (pg.118)	Positive mood, negative mood	“Service” in traditional business environment
Shaw and Ivens (2005)	Building Great Customer Experience, New York: Macmillan	Customer experience: an interaction between an organization and customer	Physical performance, the senses stimulated, emotions evoked	“Product and Service” in traditional business environment

Havlena and Holbrook (1986) indicated that the consumption experience consists of a mix of utilities/hedonic, tangible/intangible, or objective/subjective components. Hirschman (1984) provided three dimensions of the service consumption experience: Cognitive Stimulation, Sensory Stimulation, and Novel Stimulation. Schmitt (1999) proposed a new marketing paradigm: experience marketing. He indicated that consumers are rational and emotional human beings who expect to achieve pleasurable experiences. Such experiences have been conceptualized into five different strategic experiential modules: Sensory Experience, Affective Experience, Creative Cognitive Experiences, Physical Experience, Behaviors and Lifestyle. More recently, Mathwick et al. (2002) defined consumer perceptions of experiential value as “*a perceived, realistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose*” (pg. 126). In this study, consumption experience is conceptualized with seven dimensions: efficiency, economic value, intrinsic enjoyment, escapism, visual appeal, entertainment, and service excellence. Consumption experience has been largely considered as a multidimensional construct (Havlena and Holbrook, 1986; Hirschman, 1984). However, there is no consensus on the constitution of dimensions of consumption experience in existing marketing and consumer behavior literature.

Hirschman and Holbrook (1982) introduced the *Hedonic Consumption* concept which designates “*those facets of consumer behavior that relate to the multisensory, fantasy and emotive aspects of one’s experience with products*” (pg. 34). Unger and Kernan (1983) developed a leisure construct consisting of six major subjective conditions:

Intrinsic Satisfaction, Perceived Satisfaction, Perceived Freedom, Involvement, Arousal, Mastery, and Spontaneity. Mano and Oliver (1993) examined Product-Consumption-Elicited-Experience and proposed pleasantness and arousal as two primary dimensions of affect. These two dimensions have been widely applied in the marketing and consumer behavior literature as two major dimensions of emotion perspective of consumption experience (Havlena and Holbrook, 1986; Oliver, 1994; Menon and Kahn, 2002).

Recent consumer behavior literature has concluded about the limitation of focusing solely on an emotion construct (Ladwein, 2002) that “*tends to overestimate the influence of sensorial factors of on consumer’s emotions*” (Caru and Cova, 2006, pg.4). Thus, there is a need to develop a more holistic and multidimensional model of the consumer’s perception of consumption experience (Thompson, 2000; Caru and Cova, 2006). Several early endeavors have introduced different dimensions in addition to emotional perspective. According to Pine and Glimore (1999), an experience may engage consumers on a number of dimensions. Two of the most important dimensions identified are: Consumers’ Participation and Environmental Relationship. Firat (1987) defined four basic consumption patterns: social relationship, domain of availability, level of participation, and human activity. Caru and Cova (2006) traced an immersion dimension and emphasized it as one significant dimension of consumers’ consumption experience. However, among all these studies, there is no comprehensive view on dimensions of consumers’ service consumption experience.

In addition, a majority of past studies focus only on the emotion aspect. Others focus only on the experience of consuming products in the traditional business

environment. Since none of these studies investigated relational exchange and service consumption experience in the EME, this study develop and present a multi-dimensional conceptualization of the service consumption experience in this study along with a nomological network of its antecedents and consequents including relational exchange.

Moreover, the notion of service consumption experience is an under-explored area in the EME and in the IS literature. This research defines service consumption experience in the EME as *consumer's perceptions related to the facets of emotions, sensation, immersion, participation, and playfulness arising from interaction with service providers during the consumption process of the service in the EME*. Here, this research adopts a conceptualization based on Hirschman and Holbrook (1982), Hirschman (1984), Pine and Gilmore (1998), Van der Heijden (2004), and Caru and Cova (2006) to define of the consumption experience in the EME and propose five dimensions of service consumption experience in the EME. This approach incorporates extensive integration of past research, and is built upon a robust and solid theoretical foundation.

2.4 Relational Exchange

Building a strong customer relationship has been suggested as a means for companies to gain a competitive advantage in both the marketing and IS literature. Macneil (1980) differentiates between the transactional exchange and relational exchange. He emphasizes that relational exchange transpires over time; each transaction must be viewed in terms of its history and its anticipated future. This characteristic reflects the long-term feature of relational exchange between buyers and sellers. Later, Day and

Wensley (1983) indicated that the relational exchange contributes to product differentiation and provides a competitive advantage. Dwyer *et al.* (1987) pointed out that the “*‘buyer-seller’ relationship involves analogous benefits and costs*” (pg.14) and proposed a five-phase model of the long-term exchange relationship. Since then, the theory of exchange relationship received increasing emphasis in marketing research (Achrol, 1991; Bucklin and Sengupta, 1993; Morgan and Hunt, 1994; Gundlach *et al.*, 1995; Gruen *et al.*, 2000.)

Marketing and consumer behavior research have identified perceived value, satisfaction, commitment, trust, customer loyalty, and word-of-mouth communication as essential ingredients for developing a successful long-term exchange relationship (Ganesan, 1994; Morgan and Hunt, 1994; Gruen *et al.*, 2000; Oliver, 1999a).

In the context of the services literature, it is clear that “*Relationship marketing is attracting, maintaining and -- in multi-service organizations – enhancing customer relationship*” (Berry, 1983, pg.25). Dwyer *et al.* (1987) indicated that “*consumer marketers benefit from attention to conditions that foster relational bonds leading to reliable repeat business*” (pg.12). These conditions could be created with tools and techniques in order to get customer retention and growth (Dwyer *et al.*, 1987; Malley and Tynan, 2000; Goldberg, 1988). Today, IT and electronic devices have largely improved the conditions for relationship development.

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). Such

relationships are guided by high order mental constructs such as customer perceived value, satisfaction, switching cost, and commitment. These global evaluations are believed to summarize consumer knowledge and experiences with particular service providers and guide subsequent actions such as loyalty (retention) (Garbarino and Johnson, 2006) and word-of-mouth communication (growth). The time and effort expenditures in the service convenience dimensions all engage experiential consumption when consumers interact with the service in the EME. Thus, it is important to understand consumers' perception of service convenience in the EME in order to improve consumers' evaluation of the service with the above relational exchange components. This study provides a nomological network to identify both antecedents and relational exchange outcomes for service convenience and service consumption experience in the EME.

CHAPTER III

SERVICE CONVENIENCE AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 1&2)

Among studies related to service in the EME, from the consumer perspective the focus has been on the individual user's acceptance of certain types of online services such as online banking, online entertainment, e-commerce, etc. in order to ascertain consumer adoption of these technologies and services. Many of these studies utilized the Technology Acceptance Model (TAM) (Davis, 1989) and/or its extension to predict the attitudes and behaviors of consumers toward specific services in the EME and their possible adoption. These studies are important and have provided significant insights related to service adoption in the EME. However, it is not sufficient to just understand consumers' perception related to service adoption. What we need is a deeper understanding of the factors that explain how services can lead to the development of long term exchange relationships between service consumers and online service providers in the EME. This is critical since it is only through the development of long term relationships that online service providers can hope to maintain the desired customer base (retention) and increase the customer base through the acquisition of new customers (growth).

In this chapter, this study addresses research question 1&2:

RQ1: What are the dimensions of service convenience in the EME? Can service convenience in the EME be conceived at a higher level of abstraction as a second order factor for building a more parsimonious theory of the role of service convenience in relational exchange?(Study I)

RQ2: What is the role of service convenience in the development of long term exchange relationship in the consumption of services in the EME? (Study I)

Following from the above discussion, the aim of this study is to provide a comprehensive framework building on the research of IS, service, consumer behavior, and relational exchange in marketing for understanding the role of service convenience in the EME for establishing the long-term mutual relationship between consumers and service providers. The following section provides the dimensions, antecedents, and consequents of service convenience in a comprehensive research framework.

3.1 Proposed Research Framework

Figure 3.1 depicts the research model for this study. The relevant literature and conceptualizations of the variables and the propositions derived from such review are examined in the following sub-sections.

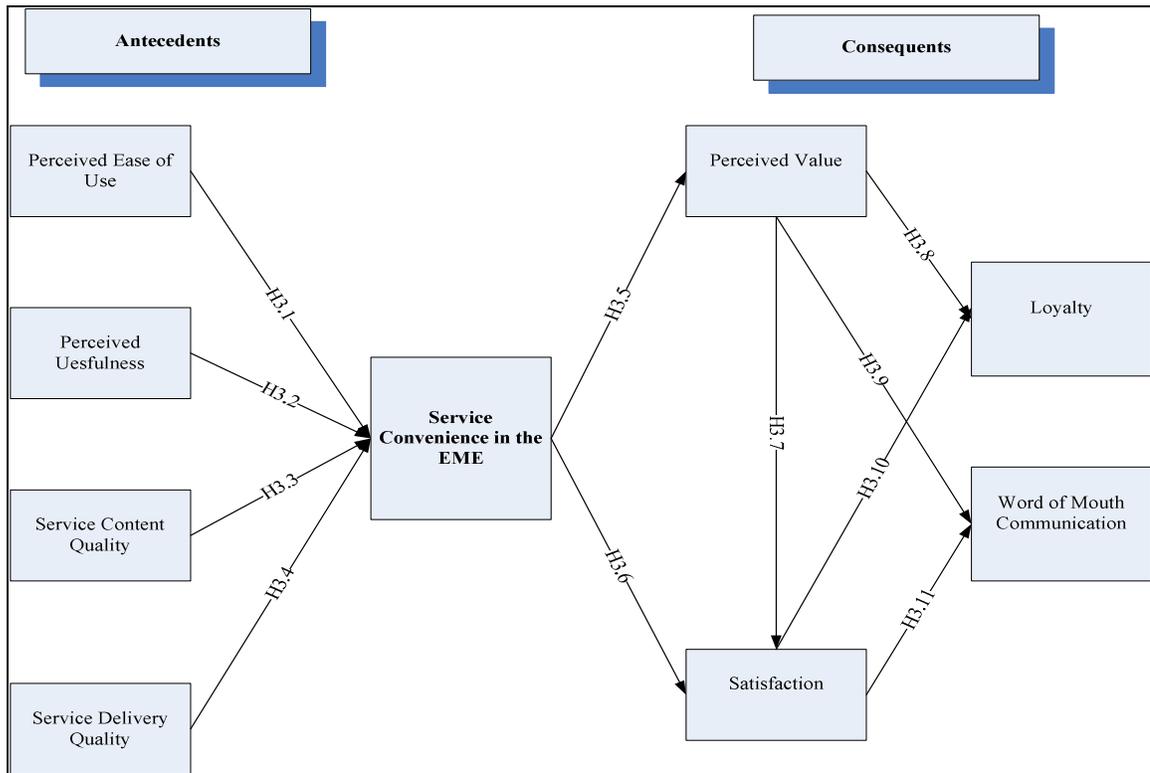


Figure 3.1: Proposed Research Model of Service Convenience in the EME and its Antecedents and Consequents Related to the Development of Long Term Exchange Relationship

3.1.1 Dimensions of Service Convenience in the EME

As discussed earlier, the notion of service convenience is an unexplored area in the EME and in the IS literature. Service convenience in the EME is defined in this dissertation as consumers' perceptions of time and effort in relation to buying or consuming a service in the EME. Typically, time and effort are nonmonetary types of costs that consumers must incur in the process of using or receiving services the EME. These types of costs are inherent in any electronic mediated service consumption although the degree may vary. Time and effort are opportunity costs that essentially

prevent consumers from participating in other forms of activities (Bivens and Volker, 1986; Berry *et al.*, 2002). Here, this research adopts Berry *et al.* (2002) conceptualization of service convenience, with its six dimensions, due to the extensive integration of past research that provides a robust and solid theoretical foundation behind their conceptualization.

In the EME, the traditional brick and mortar concerns about service convenience may not all be relevant. For example, the location convenience or staff support become irrelevant. However, IT-based support such as reputation systems or one-stop payment functions provides appealing convenience to consumers. Drawn from the extant literature and the technology-based service innovation, this study identify six dimensions of service convenience (based upon Seiders *et al.*, 2000, Berry *et al.* 2002, and Seiders *et al.*, 2007) in the EME (see Figure 3.2) as having (1) service decision convenience in the EME, (2) service access convenience in the EME, (3) service search convenience in the EME, (4) service transaction convenience in the EME, (5) service benefit convenience in the EME, and (6) service post-benefit convenience in the EME.

Service Decision Convenience in the EME relates to the time and effort expenditure required to decide how to obtain or purchase an electronic mediated service (Berry *et al.* 2002, and Seiders *et al.*, 2007). For example, online reputation systems provide reviews of online products or sellers that would reduce consumers' time and effort to compare different options before the purchase decision is made.

Service Access Convenience in the EME relates to consumers' perceived time and effort expenditures to initiate service delivery (Berry *et al.* 2002, and Seiders *et al.*,

2007). This type of convenience could be seen in online banking systems where consumers would highly depend on the information availability and accessibility since there is minimal assistance from employees.

Service Search Convenience in the EME refers to the speed and ease with which consumers could identify and select the products or services in the EME (Seiders et al, 2000). For example, online classification systems (e.g., craigslist, angie's list) shortens the consumer search depth which may involve certain time and effort expenditure.

Service Transaction Convenience in the EME primarily involves expenditures of time and effort as it relates to the execution or fulfillment of a transaction (Seiders et al, 2000, Berry et al, 2002). For instance, online one-stop payment functions reduced consumers' time and effort in filling in numbers on online forms repetitively.

Service Benefit Convenience in the EME relates to consumers' time and effort expenditures to experience the services' core benefits (Berry et al. 2002, and Seiders et al., 2007). Typically, it means the favorable return on consumer's investment (e.g., time, effort, and other resources).

Service Post-Benefit Convenience in the EME involves the consumers' perceived time and effort expenditures as a post-purchase experience when reinitiating contact with a firm after the benefit stage of the services (Berry et al. 2002, and Seiders et al., 2007). Generally, this convenience is difficult to achieve in the EME since it is generally not easy to contact a 'live person' in the context of online service providers on a real time basis. Some service providers have begun to provide 24*7 customer support with instant messenger in order to improve consumers' post-purchase experiences.

Research in academic literature has repeatedly identified service convenience as a multi-dimensional construct and some have alluded to an emergent second order factor model to parsimoniously capture this important construct (Brown, 1990; Seiders *et al.*, 2000; Berry *et al.*, 2002; Yale and Vekatesh, 1986). This research proposes an the emergent second order factor model for service convenience in the EME (see Figure 1) where the first-order factors such as Search Convenience in the EME, Decision Convenience in the EME, Access Convenience in the EME, Transaction Convenience in the EME, Benefit Convenience in the EME and Service Post-Benefit Convenience in the EME are latent formative factors. This allows author to model the six latent dimensions under a unitary representation. In this conceptualization, it is assumed that these formative first order factors ‘cause’ the second order factor (Chin, 1998) and in this research it is the service convenience in the EME construct. A formative second order model provides a coherent and parsimonious representation of this multi-dimensional phenomenon in explaining exchange relationship development between consumers and service providers in the EME (Pavlou *et al.*, 2008). This study conceptualizes that this second order service convenience construct plays a mediating role in the context of exchange relationship development between the consumers and service providers.

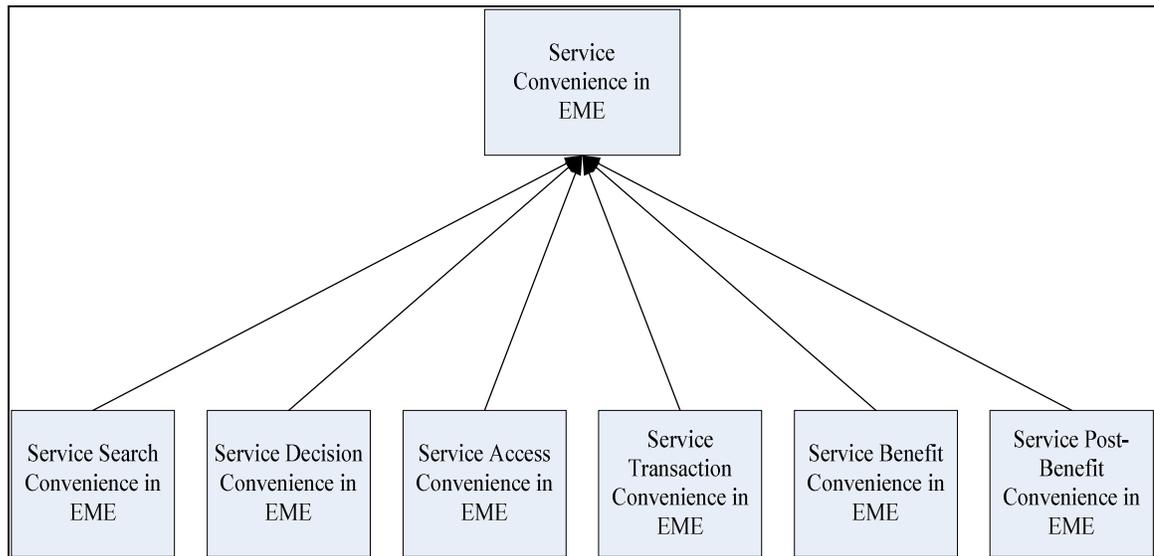


Figure 3.2: Service Convenience dimensions

3.1.2 Antecedents of Service Convenience in the EME

Based on the characteristics of the EME and the definition of service on the EME, this study has proposed two categories of services characteristics: technology use and service quality as the major antecedents of service convenience in the EME.

Technology Use

Meuter *et al.* (2000, pg. 21) pointed out that “*Technology is a key adjunct to service system design.*” Online technology provides consumers with more options when they can choose the mode of service—traditional employee service or self-service (Berry *et al.*, 2002) Therefore, it would improve consumers’ convenience perceptions of using or buying services. Additionally, the advances of electronic devices make it possible for consumer shopping and using a service online at anytime and anywhere. In

conceptualizing use of technology, the Technology Acceptance Model has been widely adopted in IS literature (Davis, 1989, Venkatesh et al., 2003, Tan *et al.*, 2007). In this study, this study has applied two major constructs from TAM: perceived ease of use and perceived usefulness.

Perceived ease of use

Perceived ease of use refers to "the degree to which the prospective user expects the target system to be free of effort" (Davis *et al.*, 1989, pg.985). This internal belief is tied to an individual's assessment of the mental effort involved in using a system (Davis 1989). A certain service may be viewed as convenient because it makes the consumption activities easier to perform (Yale and Venkatesh, 1986). In the EME, a single application may serve many functions, thus easing the whole consumption process.

Hypothesis 3.1: *Perceived ease of use is positively associated with service convenience in the EME*

Perceived usefulness

Perceived usefulness refers to a "prospective user's subjective probability that using a specific application will increase his or her ... performance" (Davis *et al.*, 1989, pg.985). Consumers could perceive the benefits of online technology since it can streamline service performance by automating manual processes that are slower and more error prone (Berry *et al.*, 2002); and improves the service consumption process with more uniformity and less mess than the equivalent manual activity (Yale and Venkatesh, 1986). In addition, the EME provides consumers a more efficient platform when retaining contact with a firm after the benefit stage of the service. For example, consumers could

also apply various communication methods with electronic devices to get post-purchase services in real time.

Hypothesis 3.2: *Perceived usefulness is positively associated with service convenience in the EME.*

Service Quality

Electronic service quality is a well-established concept in prior service and IS literature (Zeithaml *et al.*, 2000; Loiacono *et al.*, 2002; Parasuraman *et al.*, 2005, Fassnacht and Koese, 2006; Collier and Bienstock, 2006; Tan *et al.*, 2007). Service quality in the EME is defined as the extent to which the electronic device facilitates efficient and effective consumer activities at service encounters (Parasuraman *et al.*, 1985, Zeithaml *et al.*, 2000). On the basis of prior service quality theories and electronic commerce studies, Tan *et al.* (2007) claimed that conceptualization of service should include considerations of both service content and delivery. Furthermore, they empirically investigated these two sub-dimensions of service quality in the context of e-government services.

Service Content Quality

Applying content and delivery concepts in this study, *service content quality* is defined as the extent to which complete, accurate, and timely content is provided to online consumers during the interaction process with the user interface in the EME. The content of the online environment, especially the store layout and design, influence consumers' efficient online "movement" (Baker *et al.*), and affecting their time and effort expenditure (service convenience) in finding their desired merchandise (Seiders *et al.*, 2000). As the above definition implies, the high level of service content quality would

reduce consumers' time and energy costs (service convenience) in the entire process of service consumption in the EME.

***Hypothesis 3.3:** Service content quality is positively associated with service convenience in the EME*

Service Delivery Quality

Service delivery quality is defined as the manner in which IT mediated service functionalities are made accessible to consumers via the service providers' website as a delivery channel. Bitner *et al.* (2000) addressed the notion that intelligence embedded in an organization's IS and available to service providers could improve the speed of delivery. On the consumer side, online services delivered by electronic devices has increased convenience in terms of time, place and use (Brown, 1990); for example, consumers could pay their bills online at home at midnight. Therefore, service delivery quality pertains to the consumer-website interaction during the process when the consumer is looking for information, selecting from available options or carrying out transaction (Fassnacht and Koese, 2006).

***Hypothesis 3.4:** Service delivery quality is positively associated with service convenience in the EME*

3.1.3 Consequents of Service Convenience in the EME

Today services are delivered with recognition that the customer's experience is formed across all moments of contact with the firms (Sousa, and Voss, 2006). The time and efforts expenditure in six service convenience dimensions are involved in the certain experiential process when the consumer interacts with the service provider in the electronic mediated environment. In the meantime, the exchange relationships are yielded

during the process that consumers are spending their time and efforts in the certain services (Rust and Kannan, 2003). Such relationships are guided by high order mental constructs such as customer perceived value and satisfaction (Garbarino and Johnson, 2006).

Perceived Value

Customer value consists of subjective hierarchical preferences based on an individual's situation-specific comparisons of one object with another. *“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. From this perspective, “all products are services”* (Holbrook, 2006 pg.715). Customer value serves as the foundation for all effective marketing activity. Consumer perceived value is often involved in consumers' evaluations of the service with the assessment of the ratio of perceived benefits to perceived costs (Zeithaml, 1998). Prior research has also confirmed that consumers' convenience perceptions and service evaluations are influenced by high time and energy cost (Bitner, 1990; Berry *et al.* 2002). Consumer waiting time research suggests that there is tight relationship between consumers' evaluation of the service and their waiting time in the EME; for example, download delay is closely related to consumers' evaluation of the electronic service retailer (Rose and Straub, 2001; Rose *et al.*, 2005). As one major component of service evaluation, the author believes that there is a positive relationship between consumers' perceived value and service convenience.

Hypothesis 3.5: Service convenience will positively influence consumers' perceived value of service in the EME

Satisfaction

Oliver (1992) defines service satisfaction as the consumer's post-purchase evaluation and effective response to the overall consumption experience. Researchers have identified that consumers' satisfaction is highly correlated with the overall convenience which would exert a positive influence on consumers' future purchase behavior. Berry *et al.* (2002) summarized previous work on consumers' waiting time (Carmon *et al.*, 1995; Kumar *et al.*, 1997; Bitner, 1990) and pointed out that consumers' convenience perceptions and their effects on service satisfaction are significantly affected by time and energy cost. Szmanski and Hise (2000) addressed that online shopping has been promoted widely as a convenient avenue for shopping since buying online could economize on time and effort in locating merchants, finding items, and procuring offerings (Balasubramanian, 1997). Therefore, time and browsing benefits of buying and using online services are likely to be manifested in more positive perceptions of convenience and e-satisfaction.

Hypothesis 3.6: Service convenience will positively influence consumers' service satisfaction in the EME

Hallowell (1996) indicated that consumer satisfaction is the result of the consumer's perception of received value. 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 3.7: Perceived value will positively influence consumers' service satisfaction in the EME

Loyalty

Perceived value and satisfaction involved in service evaluations are believed to summarize consumer knowledge and judgment with a particular service provider and guide subsequent actions and loyalty of the consumer (Garbarino and Johnson, 2006). Prior literature confirmed that perceived value and satisfaction are the important determinants of the customer loyalty in the online environment (Lin and Wang, 2006; Gefen, 2002). Accordingly, in order to develop long-term mutual relationships, managers must make great efforts to improve the convenience of their services in the electronic environment from the first encounter, from purchasing, to delivery and beyond, as this can influence the service retention (customer loyalty) and service growth (word-of-mouth communication) (Bolton *et al.*, 2000).

Hypothesis 3.8: *Consumers' perceived value will positively influence their loyalty in the EME.*

Hypothesis 3.9: *Consumers' satisfaction will positively influence their loyalty in the EME.*

Word-of-mouth Communication

Word-of-mouth communication has been recognized as an essential ingredient for successful long-term relationships of growth and points to the value of existing customers who spread good words about the company and its products and services (Anderson, 1998; Richins, 1983). Word-of-mouth communication has been found to be an important outcome of the exchange relationship between service providers and consumers (Richins, 1983; Srinivasan *et al.*, 2002; Harrison-Walker, 2001; Kumar *et al.*, 2007). Loyal customers often refer new customers to suppliers. In the online environment, “word-of-

mouse” spreads even faster than “word-of-mouth” since online customers can, for example, use e-mail to broadcast a recommendation for a favorite service provider to dozens of friends and family members (Reichheld and Schefter, 2000; Dellarocas, 2003). “*Message boards, chat rooms, blogs, and virtual brand communities have become important venues for customer-generated media*” (Dwyer, 2007, Pg63). Today, with applications of blog, face book, MySpace, twitter, mobile phone, etc., consumers have got more effective ways to spread word-of-mouth (Park and Kim, 2008). Therefore, this study has included word-of-mouth communication as an outcome of the relational exchange between the consumers and service providers in EME.

***Hypothesis 3.10:** Consumers’ perceived value will positively influence their word-of-mouth communication in the EME.*

***Hypothesis 3.11:** Consumers’ satisfaction will positively influence their word-of-mouth communication in the EME*

The next section summarizes hypotheses related to antecedents and consequents of service convenience.

3.1.4 Summary of Hypotheses

Table 3.1: Hypotheses Relate to Antecedents of Service Convenience

Hypothesis	Statement
<i>Hypothesis 3.1</i>	<i>Perceived ease of use is positively associated with service convenience in the EME</i>
<i>Hypothesis 3.2</i>	<i>Perceived usefulness is positively associated with service convenience in the EME</i>
<i>Hypothesis 3.3</i>	<i>Service content quality is positively associated with service convenience in the EME</i>
<i>Hypothesis 3.4</i>	<i>Service delivery quality is positively associated with service convenience in the EME</i>

Table 3.2: Hypotheses Relate to Consequents of Service Convenience

Hypothesis	Statement
<i>Hypothesis 3.5</i>	<i>Service convenience will positively influence consumers' perceived value of service in the EME</i>
<i>Hypothesis 3.6</i>	<i>Service convenience will positively influence consumers' service satisfaction in the EME</i>
<i>Hypothesis 3.7</i>	<i>Consumers' perceived value will positively influence their satisfaction in the EME.</i>
<i>Hypothesis 3.8</i>	<i>Consumers' perceived value will positively influence their loyalty in the EME.</i>
<i>Hypothesis 3.9</i>	<i>Consumers' satisfaction will positively influence their loyalty in the EME</i>
<i>Hypothesis 3.10</i>	<i>Consumers' perceived value will positively influence their word-of-mouth communication in the EME.</i>

Hypothesis	Statement
<i>Hypothesis 3.11</i>	<i>Consumers' satisfaction will positively influence their word-of-mouth communication in the EME.</i>

3.2 Research Design

3.2.1 Measurement Instrument Development

This study has utilized a survey methodology in assessing the proposed comprehensive research model. 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.

The measures for the service convenience dimensions were adopted from prior service convenience studies in marketing literature with some modifications (Seiders *et al.*, 2000, Berry *et al.* 2002; Seiders *et al.*, 2007). Berry *et al.* (2002) conceptually proposed items for five service convenience dimensions with the exception of the service search convenience dimension in this proposed model. Seiders *et al.* (2007) later empirically validated the items for these five convenience dimensions and examined their antecedents and influences in the traditional service context. Items for service search convenience were adapted from Seiders *et al.* (2000) in which convenience strategy was investigated in the retail context.

Measures for the Perceived Ease of Use and Perceived Usefulness were obtained from existing empirical research (Gefen *et al.*, 2004). The service content quality and service delivery quality measures were adapted from Tan *et al.* (2007) study. Minor modifications have been made to fit in this research context. The measurement of relational exchange constructs were generated from existing marketing literature to capture consumers' evaluations of service (perceived value and satisfaction) and their orientations for a long-term relationship development (loyalty and word-of-mouth communication). All items were measured with a five-point Likert-type scale (1 = "Strongly disagree" to 5 = "Strongly agree").

3.2.2 IRB Approval

The protocol of this survey research has been approved by Institutional Review Board of university of North Carolina at Greensboro. The protocol number is 078331. The approved date is April 2nd, 2008. Please see the Appendix for the approved protocol from the Office of Research Compliance at UNCG. The application documents and the survey instruments are also attached.

3.2.3 Survey Administration

All measurements were validated using a refinement procedure with several pretests. The author first interviewed 27 business school students to get their understandings of service and service convenience in the EME. The subjects were also asked to provide a list of five services they had used most frequently in electronic environment in last six months. This step helps author to capture consumers'

comprehension and assessment of service in the EME. Further, the results for this procedure are incorporated into the survey development in which the respondents were asked to identify one online service provider they had used most frequently in the last six months. Based on their experiences of using service from this specific service provider, the subjects are asked to indicate their perceptions of each item provided in the survey. The services included electronic banking, mortgage provider service, online music buying service, and online car insurance provider service. There is no statistical difference found between these different types of services.

3.2.4 Pre-Tests

The survey instrument was first tested using two business school professors (experts in IS research related to ecommerce and e-services) and three IS Ph.D. students. The aim of this pre-test is to examine the feasibility of the instrument and gain qualitative feedback from the respondents.

Based on the recommendations received from these five individuals, the instrument was refined for wordings and a major change was the use of a 5-point Likert Scale instead of a 7-point scale to collect data from respondents. All the recommendations were duly acknowledged and necessary modifications were made to the instrument.

3.2.5 Pilot Study and Preliminary Result

A pilot study consists of data collection and analysis from a small set of subjects, which serves as a guide for the main study (Glass, 1997). The use of a pilot study is

recognized as a critical part of a rigorous scale development methodology. The pilot study is able to give preliminary warning about where the main research could potentially fail and where the possibility of research protocol may not be followed correctly, or whether suggested methods or instruments are inappropriate or complicated (Teijlingen and Hundley, 2001).

A larger scale pilot study was conducted using 90 business school students on the refined instrument. PLS-graph software was adopted to test reliability of this instrument. The results of pilot tests are displayed in Table 3.3. General rules have been provided by prior IS research to validate survey instruments (Werts *et al.*, 1974; Straub, 1989; Moore and Benbasat, 1991; Amoako-Gyampah and Salam, 2004; Chin *et al.*, 2003). Reliability was assessed by using PLS internal consistency score. A score of 0.70 is considered as the threshold of internal consistencies for all variables (Nunnally and Bernstein, 1994; Pavlou and Fygenon, 2006). The author removed the item (highlighted in red) which failed in reliability test and cross-loaded highly on other constructs. For example, the first item for perceived value construct was deleted since the loading was lower than .70.

Table 3.3: Results of Reliability Tests for Pilot Study

Construct	Item	Reliability (Refined)
Perceived usefulness	pu1 pu2 pu3 pu4 pu5 pu6	0.938
Perceived ease of use	peou1 peou2 peou3 peou4 peou5 peou6	0.947
Service Content quality	sconten1 sconten2 sconten3	0.915
Service Delivery quality	sdeliv1 sdeliv2 sdeliv3	0.902
Service Search Convenience in the EME	ssearch1 ssearch2 ssearch3	0.903
Service Decision convenience in the EME	sdecis1 sdecis2 sdecis3 sdecis4	0.910
Service Access Convenience in the EME	sdecis1 sdecis2 sdecis3 sdecis4	0.882
Service Transaction convenience in the EME	strans1 strans2 strans3 strans4	0.916
Service Benefit convenience in the EME	sbenef1 sbenef2 sbenef3	0.903

Construct	Item	Reliability (Refined)
Service Post Benefits convenience in the EME	spostb1 spostb2 spostb3	0.923
Perceived Value	pv1(Delete) pv2 pv3 pv4 pv5	0.942
Satisfaction	satisf1 satisf2 satisf3 satisf4(Delete)	0.910
Customer Loyalty	loyalty1 loyalty2(Delete) loyalty3	0.869
Word-of-Mouth	wordm1 wordm2 wordm3	0.915

In addition, the respondents gave verbal and written feedback upon completion of the survey. They were asked to make notes on the surveys of items that were unclear. Based on this feedback, changes were made to improve the layout of the survey form and the phrasing of some survey questions. The refined instrument was then distributed for a large scale data collection in United States. The next section details the process of the large scale data collection.

3.3 Data Analysis and Assessment of Proposed Research Model

3.3.1 Data Analysis Method

The structural equation modeling (SEM) approach was used to analyze the data for both the measurement model and structural model in this study since the SEM based procedure provides powerful ways to address key IS research problems (Chin and Todd, 1995). The SEM is able to provide the analysis of structured causal relationships among multiple predictors and unobserved latent variables (Chin, 1998). The software I have used is SmartPLS. Partial Least Squares (PLS) was chosen because PLS uses a component based approach to estimation and places minimal restrictions on measurement scales, sample size, and residual distributions (Chin *et al.*, 2003).

3.3.2 Sample Demographics

A total of 1250 valid responses were collected using paper based surveys (36.6%) and online surveys (63.4%) in the U.S. Respondents of paper based surveys are undergraduate students and MBA students, from a business school, who are also the service consumers in the EME. The respondents of online surveys are from a more diversified background which includes student and non-student consumers of services in the EME. Among these respondents, 457 respondents were male (36.6%) and 793 were female (63.6%). Approximately 75.8 percent of respondents are between the ages of 18 to 25. 93.8% of respondents in the sample are currently having college experience or have already achieved at least bachelor degree. All respondents of this study have the

experience of using service in the EME for at least 6 months to ensure that they had time to develop a long-term relationship with online service providers. Table 3.4 presents the details of descriptive statistics of respondents' characteristics.

This dissertation performed a separate data analysis on each sample and obtained identical results on both the measurement model and the structural model. The test of the means of each sample group didn't show any significant differences. According to Ahuja *et al.* (2003), students and non-students have demonstrated identical patterns of online purchasing behavior. A number of studies (Ahuja, et al. 2003, Lee and Turban 2001, Gefen et al, 2004, Nicolaou and McKnight, 2006; Pavlou and Fygenson, 2006; Komiak and Benbasat, 2006) have utilized students as subjects, "*with the realization not only that they represent an important segment of the broader online population, but also that they are likely to be representative of that broader population*" (Kim et al, 2007, pg19). Ahuja, et al. (2003) and Kotkin (1998) indicate that online consumers are generally younger and more educated than conventional consumers. Students do represent a disproportionately large segment of the broader online population (Kim et al, 2007). "*Prior empirical research (Gallagher et al., 2001) in marketing suggests that where online behavior is concerned, a random sample of the general population of online consumers may not always be better than a student sample; results from a student sample can foreshadow the direction in which the general population is moving*" (Komiak & Benbasat, 2006, pg.958). In ecommerce context, Pavlou & Fygenson (2006) investigates online shopping behavior between students and non-student online consumer, the results from the student and consumer samples were not significantly different. Therefore, the

results reported here are based on the statistical analysis of the combined data from both student sample and non-student samples.

Table 3.4: Descriptive Statistics of Respondents Characteristics (n=1250)

Measure	Value	Frequency	Percentage
Gender	Male	457	36.6%
	Female	793	63.4%
Age	18-25	948	75.8%
	26-35	205	16.4%
	36-55	87	7.0%
	>55	10	0.8%
Education	High school	77	6.2%
	Some college	846	67.8%
	Bachelor	219	17.4%
	Master	100	8.0%
	Ph.D.	8	0.6%
Income Level	<\$12,000	829	66.4%
	\$12,000--\$36,000	270	21.6%
	\$36,000--\$60,000	62	5.0%
	\$60,000--\$96,000	35	2.7%
	>\$96,000	54	4.3%

3.3.3 Measurement Validation

3.3.3.1 Descriptive Statistics

The descriptive statistics are reported in Table 3.5 and Table 3.6 respectively. Reported statistics include Mean, Standard Deviation (S.D.), and Inter-construct correlation matrix.

Table 3.5: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct

	Perceived Ease of Use	Perceived Usefulness	Service Content Quality	Service Delivery Quality	Service Convenience in the EME	Perceived Value	Satisfaction	Loyalty	Word-Of-Mouth Communication
Perceived Ease Of Use	0.89								
Perceived Usefulness	0.59	0.90							
Service Content Quality	0.74	0.50	0.93						
Service Delivery Quality	0.74	0.50	0.85	0.93					
Service Convenience In The EME	0.81	0.63	0.82	0.83	0.88				
Perceived Value	0.77	0.63	0.71	0.71	0.81	0.86			
Satisfaction	0.78	0.53	0.73	0.74	0.79	0.79	0.95		
Loyalty	0.58	0.60	0.51	0.51	0.60	0.60	0.54	1.00	
Word-Of-Mouth Communication	0.53	0.68	0.46	0.46	0.56	0.56	0.49	0.53	0.92
*The diagonal elements represents the square root of AVE									

3.3.3.2 Reliability of Refined Instrument

General rules have been provided by prior IS research to establish convergent validity and discriminant validity. Convergent validity was assessed by using the PLS internal consistency score. According to Werts *et al.* (1974), the internal consistencies of all variables were calculated by composite reliability score which is $(\sum \lambda_i)^2 / [(\sum \lambda_i)^2 + \sum \text{Var}(\varepsilon_i)]$, where the λ_i is the indicator loading, and $\text{Var}(\varepsilon_i) = 1 - \lambda_i^2$. Prior studies have indicated that internal consistency for the constructs is further validated through composite reliability and Average Variance Extracted (AVE) (Fornell and Larcker, 1981; Tan *et al.*, 2007). Typically 0.70 is considered as the threshold of internal consistency for all variables (Nunnally and Bernstein, 1994; Pavlou and Fygenon, 2006). After Refinement of the survey instrument utilized in pilot study, all constructs had high reliability (>0.85) in the sample of this study. Thus, the measurements fulfill the requirement of convergent validity.

3.3.3.3 Convergent and Discriminant Validity

To verify discriminant validity, Chin (2003) identified two general rules: “1) *Loadings are much higher on their hypothesized factor than on other factors (own-loadings are higher than cross-loadings), and 2) when the square root of each construct’s average variance extracted (AVE) is larger than its correlations with other constructs*” (Pavlou and Fygenon, 2006, pg.129; Chin, 2003). As shown in Table 3.5, the square roots of all AVEs are above 0.70 which is much larger than all the cross-correlations. In addition, all items loaded well on their respective factors (Table 3.6)

compared to the cross-loadings on other construct. The above described tests demonstrate that all measures in this study have adequate convergent and discriminant validity.

Table 3.6: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Perceived Ease of Use (Reliability= 0.93; Gefen <i>et al.</i>, 2004)				
ESP's website is easy to use.	4.10	0.96	0.88	0.88
It is easy to become skillful at using this ESP's website	4.02	0.96	0.88	0.88
Learning to operate this ESP's website is easy.	4.05	0.92	0.91	0.91
This ESP's website is flexible to interact with.	3.94	0.97	0.85	0.85
My interaction with this ESP's website is clear and understandable.	4.03	0.93	0.90	0.90
It is easy to interact with this ESP's website.	4.03	0.90	0.89	0.89
Perceived Usefulness (Reliability= 0.95; Gefen <i>et al.</i>, 2004)				
ESP's website is useful for searching and buying service.	3.71	1.01	0.86	0.86
ESP's website improves my performance in searching and buying a service	3.60	1.03	0.89	0.89
ESP's website enables me to search and buy a service faster.	3.64	1.00	0.92	0.92
ESP's website enhances my effectiveness in searching and buying a service	3.61	1.00	0.92	0.92
ESP's website makes it easier to search for and purchase a service.	3.65	1.02	0.91	0.91
ESP's website increases my productivity in searching and purchasing a service	3.60	1.03	0.88	0.88
Service Content Quality (Reliability = 0.93; Tan and Benbasat, 2007, ICIS; Fassnacht and Koese, 2006, JSR)				

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Generally, the service content offered on this ESP's website to support me in performing my transactions is satisfactory.	4.03	0.94	0.91	0.91
On the whole, the service content offered on this ESP's website is highly effective in supporting me to perform my transactions.	4.03	0.96	0.94	0.94
Generally, I am pleased with the service content offered on this ESP's website to support me in performing transactions	4.06	0.93	0.93	0.93
Service Delivery Quality (Reliability = 0.93; Tan and Benbasat, 2007, ICIS; Fassnacht and Koese, 2006, JSR)				
The general technological mechanisms underlying various service functionalities of this ESP website are satisfactory.	4.00	0.92	0.92	0.92
Generally, the service functionalities are delivered in a professional manner in this ESP's website	4.08	0.91	0.93	0.93
Overall, the service functionalities are delivered efficiently via this ESP's website	4.06	0.92	0.93	0.93
Service Decision Convenience in the EME (Reliability = 0.87; Berry et al., 2002; Seiders et al. 2007)				
It took minimal time to get the information needed to choose this online ESP.	4.03	0.94	0.83	0.83
Making up my mind about what I wanted to buy from this online ESP was easy.	3.77	0.97	0.81	0.81
It was easy to get the information I needed to decide which online ESP to use.	3.97	0.90	0.86	0.86
It was convenient to decide if I by service from this online ESP	3.89	0.92	0.86	0.86
Service Access Convenience in the EME (Reliability = 0.92; Berry et al., 2002; Seiders et al. 2007)				
It was easy to contact the online ESP	3.88	0.97	0.87	0.87
It did not take much time to reach the online ESP.	3.90	0.97	0.88	0.88
I was able to get to the online ESP's website quickly	4.09	0.97	0.91	0.91
It was convenient to access this online ESP's website	4.08	0.96	0.88	0.88

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Service Search Convenience in the EME (Reliability = 0.90; Seiders <i>et al.</i>, 2000)				
I could find the product/service I wish to buy from this online ESP very quickly.	3.96	0.97	0.90	0.90
It was easy to identify the product/service I wish to buy from this online ESP	3.97	0.95	0.92	0.92
It is convenient to search on this online ESP's site	3.97	1.02	0.86	0.86
Service Transaction Convenience (Reliability = 0.90; Berry <i>et al.</i>, 2002; Seiders <i>et al.</i> 2007)				
I did not have to make much of an effort to pay for the service.	3.95	0.97	0.82	0.82
This online ESP made it easy for me to conclude my purchase.	3.97	0.93	0.90	0.90
It was convenient to transact with this online ESP	4.05	0.94	0.88	0.88
I was able to complete my purchase quickly.	3.97	0.95	0.88	0.88
Service Benefit Convenience (Reliability = 0.92; Berry <i>et al.</i>, 2002; Seiders <i>et al.</i> 2007)				
I was able to get the benefits of the service with minimal effort.	4.08	0.95	0.91	0.91
This online service was easy to use.	4.17	0.95	0.93	0.93
The time required to receive the benefits of the service was appropriate.	4.07	0.95	0.92	0.92
Service Post-Benefit Convenience (Reliability = 0.91; Berry <i>et al.</i>, 2002; Seiders <i>et al.</i> 2007)				
This online ESP resolved my problem quickly.	3.88	0.93	0.91	0.91
It took little effort to arrange follow-up service.	3.81	0.92	0.88	0.88
This online ESP made it easy for me to resolve my problem	3.86	0.95	0.91	0.91
Perceived Value (Reliability = 0.91; Lin and Wang, 2006; Oliver, 1999b)				
The prices I pay for service from this online ESP represent a very good deal.	3.69	1.01	0.76	0.76
The time I spend in order to use this service from this ESP's site is highly reasonable.	3.92	0.97	0.87	0.87
The effort involved in using this service at this ESP's site is worthwhile.	3.99	0.94	0.90	0.90
The service consumption experience at this ESP's site is excellent.	3.88	0.95	0.88	0.88
I found significant value by using service from	3.95	0.96	0.86	0.86

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
this provider.				
Satisfaction (Reliability = 0.92, Oliver 1992)				
Overall, I am satisfied with this ESP	4.13	0.94	0.91	0.95
I did the right thing when I decided to use this ESP	4.05	0.96	0.91	0.95
I regret doing business with this ESP (R).	2.43	1.40	0.77	Dropped
Loyalty (Reliability = 0.87, Gefen, 2002)				
I have a strong relationship with this ESP	3.14	1.41	0.14	Dropped
I am likely to switch to another ESP in the near future. (R)	2.60	1.28	-0.50	Dropped
I will choose this ESP next time when I purchase same service	3.76	0.99	0.90	1.00
Word-of-Mouth Communication (Reliability = 0.91, Anderson, 1998; Richins, 1983)				
I often recommend this ESP to others	3.70	1.11	0.89	0.91
I tell my friends about this ESP	3.64	1.11	0.89	0.92
I want my friends to buy from this ESP	3.49	1.05	0.84	0.85
ESP stands for Electronic Service Provider identified by subject				

The reliabilities of the constructs in this study exhibit acceptable level (see Table 3.6 above). The reliabilities range from 0.87 to 0.95 which are considerably higher than typical cutoff value of 0.70 (Nunnally, 1978). The loadings of the items on their respective constructs were also very high when the items were allowed to simultaneously cross-load on other constructs in the study. Several items were dropped due to poor loading or due to higher cross-loading with other constructs (see Table 3.6). The remaining items exhibited very high loading on their respective constructs.

3.3.3.4 Validation of Formative Second-Order Construct

To estimate the formative second-order construct Service Convenience in the EME, this dissertation modeled the coefficient (γ_i) of each first-order factor to the latent second-order factor following Diamantopoulos and Winklhofer (2001). As shown in the Figure 3.3 below, the impact of all first-order constructs that capture the various dimensions of Service Convenience in the EME is significant ($p < .01$). This study examined the correlations among the first-order factors and they were all significant ($p < 0.01$). Significant correlations among the first-order constructs suggest that the first-order constructs may belong to the same set, even though formative constructs need not be correlated (Chin, 1998). This study also tested whether the second order construct fully mediates the impact of the first-order constructs. This step ensures that the second-order construct is a more parsimonious representation of the first-order constructs and is able to fully capture their predictive power on dependent variables (Chin, 1998). In short, these tests support the proposed second-order formative model of Service Convenience and verify its construct validity.

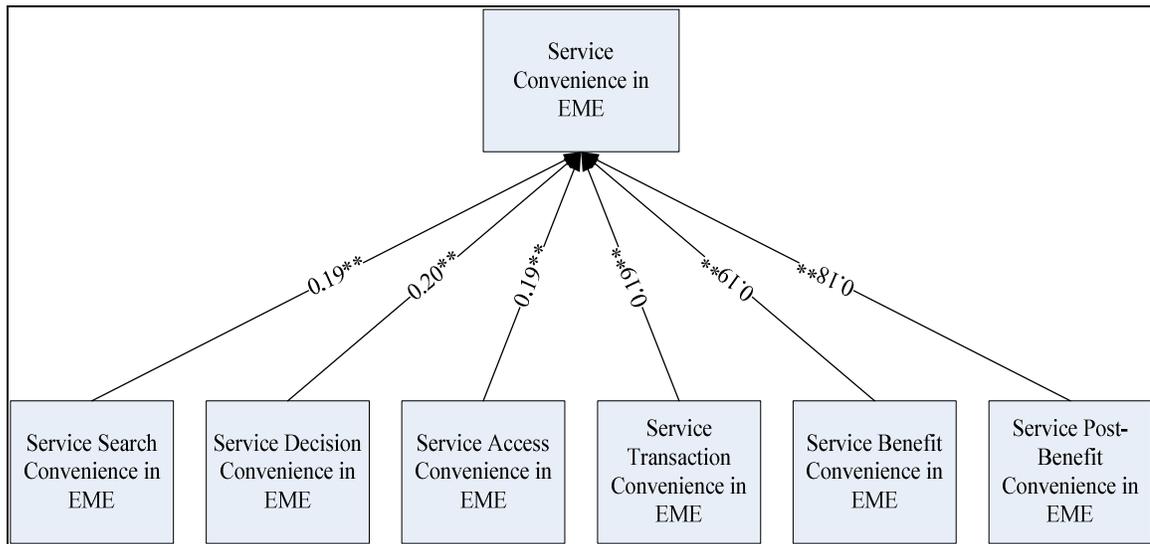


Figure 3.3: Formative Relationships between First-Order Constructs and Second-Order Construct

3.3.4 Testing the Structural Model

3.3.4.1 Hypothesis Tests

PLS path coefficients are shown in Figure 3.4. Item loadings of each construct are omitted for a clear exposition. Perceived ease of use is significantly associated with service convenience in the EME ($b=0.31$, $p<0.01$). There is also positive association between perceived usefulness and service convenience the EME ($b=0.17$, $p<0.01$). The result demonstrate that service content quality has positive impacts on consumer service convenience perception ($b=0.25$, $p<0.01$). Service delivery quality also strongly influences service convenience in the EME ($b=0.30$, $p<0.01$). These results provide the support for H3.1, H3.2, H3.3, and H3.4 respectively. These four antecedents together explain 80.8% variance of service convenience in the EME.

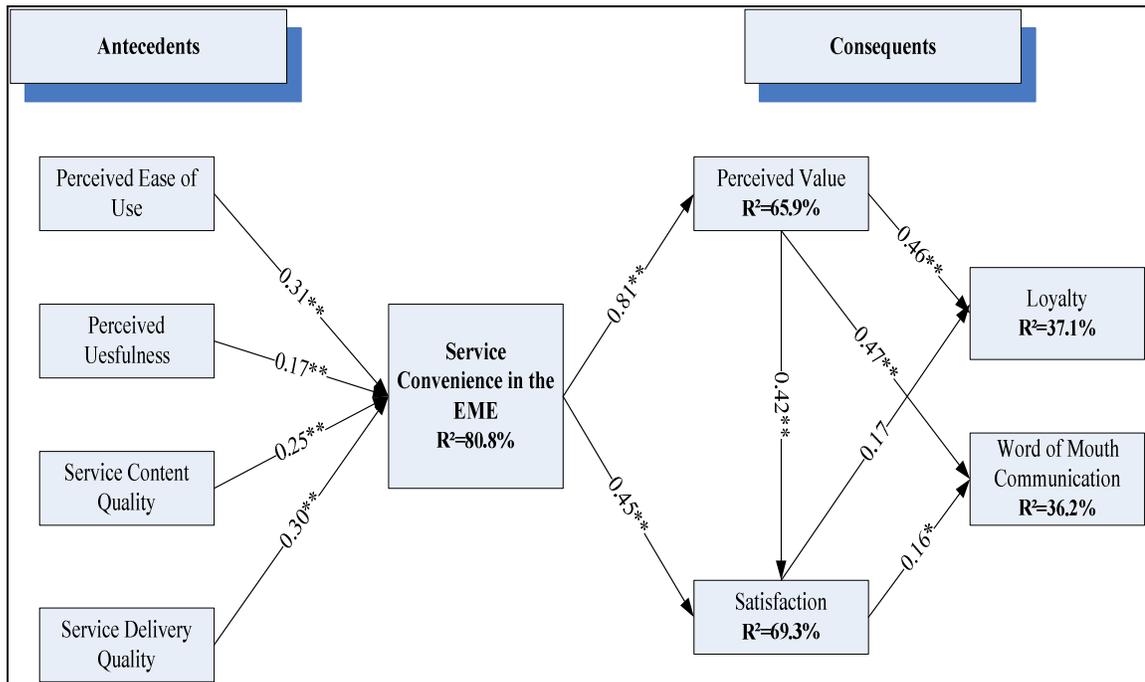


Figure 3.4: PLS Results for Structural Model

N=1250, ** Significant at $p < 0.01$, *Significant at $p < 0.1$

With regard to the consequents component of the model, service convenience shows strong impacts on consumer perceived value ($b=0.81$, $p < 0.01$) and satisfaction ($b=0.45$, $p < 0.01$). Additionally, the perceived value has significant impact on satisfaction ($b=0.42$, $p < 0.01$). These results support H3.5, H3.6, and H3.7. This global service convenience perception is able to explain 65.9% of variance of consumer perceived value of service in the EME. Moreover, 69.3% of the variance of satisfaction of service in the EME is explained by service convenience and perceived value.

All hypotheses in relational exchange are supported except the relationship between satisfaction and customer loyalty. The perceived value has significant impacts on loyalty ($b=0.46$, $p < 0.01$), and word-of-mouth communication ($b=0.47$, $p < 0.01$).

Satisfaction has weak impact on customer loyalty ($b=.17, p>.10$), but it has moderate effect on word-of-mouth communication ($b=.16, p<0.1$). As the relational outcome, 36% of variance has been explained by customer loyalty and 35% of variance of word-of-mouth communication respectively. These results validated H3.8, H3.9, H3.11, but not H3.10.

3.3.5 Summary of Results

The summary of hypotheses tests is displayed in Table 3.7 and Table 3.8.

Table 3.7 Summary of Hypotheses Tests and Results (Antecedents)

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H3.1	Perceived ease of use → Service convenience in the EME	(+)	0.31	2.78	Yes
H3.2	Perceived usefulness → Service convenience in the EME	(+)	0.17	2.37	Yes
H3.3	Service content quality → Service convenience in the EME	(+)	0.25	2.35	Yes
H3.4	Service delivery quality → Service convenience in the EME	(+)	0.30	2.81	Yes

Table 3.8 Summary of Hypotheses Tests and Results (Consequents)

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H3.5	Service Convenience in the EME→Perceived value	(+)	0.81	14.81	Yes
H3.6	Service convenience in the EME→Satisfaction	(+)	0.45	2.98	Yes
H3.7	Perceived value→Satisfaction	(+)	0.43	2.71	Yes
H3.8	Perceived value→loyalty	(+)	0.46	3.05	Yes
H3.9	Satisfaction→loyalty	(+)	0.17	1.38	No
H3.10	Perceived value→word-of-mouth	(+)	0.47	3.56	Yes
H3.11	Satisfaction→word-of-mouth	(+)	0.16	1.53	Yes

3.4 Discussion

Three main objectives have been addressed in examining service convenience in the EME. First, this research identified six service convenience dimensions in the EME and also created a second order service convenience construct. Our findings indicate that all six convenience dimensions contributes to consumer overall service convenience perception. The formative relationship between first order service convenience dimensions and the second order service convenience construct shows that each service

convenience dimension is equally important to consumer overall judgment. Therefore, online service providers should develop a service convenience strategy to meet consumers' requirements for each of the above dimensions since one type of inconvenience may negatively affect other types of convenience (Seiders *et al.* 2007).

Second, the scale of service convenience in the EME has been validated by the sample of this study. Both convergent validity and discriminant validity have been achieved to facilitate evaluation of the latent structure of the service convenience construct, second order construct, as well as the overall research framework. Our study is the first to introduce this significant service convenience construct in the EME to IS research and to present validated instruments for future research efforts.

Third, this research reveals several major antecedents and consequents of service convenience in the EME. The analytical framework demonstrated strong explanatory power of service convenience and relational exchange in the EME which validated conceptual models and theoretical hypotheses proposed in prior literature. All of the proposed hypotheses were supported with statistical significance except one.

Consumer perceived ease of use significantly impacts service convenience. Typically, design of the service system in the electronic environment varies in different service providers' sites. Therefore, consumers would have different perceptions in terms of the level of ease in using online service applications. To improve the service convenience, online service providers must try to enhance their customer interactive systems, online store design and layout, especially the display of the product and service information. The association between perceived usefulness and service convenience is

also significant. The online service may be perceived useless since people might encounter difficulties in accessing the online service in a self-service environment and then perceive low benefit of using such online service. Hence, online service providers should improve the function and accessibility of service systems in the EME to reduce the negative impact from minimal availability of employee assistance in the EME (Zeithaml and Bitner, 2000; Berry *et al.*, 2002).

Service content quality and service delivery quality have significant impacts on service convenience in the EME. This study extended Tan *et al.* (2007) research of e-government service into a more generic context in which all categories of services in the EME are applied. The enhanced service content quality and delivery quality would lower consumers' actual time and effort cost and improves service convenience in the entire process when consumers are buying and using the services in the EME.

Derived from six service convenience dimensions, the second-order service convenience construct plays an important mediating role between its antecedents and the relational outcome. This confirms that service convenience serves as an indispensable factor for successful long-term relationship development in the EME. In this research, author has found that service convenience in the EME explained respectively 65.9% and 69.3% of the variance of value and satisfaction with service consumption in the EME. This finding clearly demonstrates the value of service convenience in developing long term exchange relationships between consumers and service providers. Marketing and consumer research literature as well as ecommerce and IS literature have long identified value and satisfaction to be critical in determining the exchange relationship (Oliver 1992;

Rose and Straub, 2001; Rose *et al.*, 2005). Additionally, the analyses demonstrate that perceived value and satisfaction accounts for respectively 37.1% and 36.2% of the variance of loyalty and word-of-mouth communication related to services in the EME. This result further confirms that we were able to properly conceptualize service convenience as a second order factor, with six formative dimensions, that mediated between the antecedents and consequents in the context of exchange relationship. This provides further proof of the validity of the second order factor model for service convenience in the context of a relevant nomological net (Chin, 1998). In short, this study has been able to demonstrate that service convenience is a very important construct that explains a significant part of the consumer experience in relation to the development of long term exchange relationships with service providers in the EME. Given that we live in a largely service economy, it is critical that we recognize the importance of service convenience in the EME and its consequents for both research and practice.

CHAPTER IV

SERVICE CONSUMPTION EXPERIENCE AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 3&4)

In this experiential economy, services are delivered recognizing that the customer's experience is established across all moments of contact with the firms (Sousa, and Voss, 2006). The EME provides a better platform for consumers and business vendors to connect and to share an experiential universe with each other (Schmitt, 1999). Therefore, it is necessary to understand the determinants of the service consumption experience in the EME. Additionally, it is critical to investigate the role of service consumption experience in developing the long term relationship between consumers and service providers in the EME.

The purpose of this study is to provide an analytical framework for understanding the antecedents and consequents of service consumption experience in the EME and explaining the mediating role of service consumption experience in the EME for establishing the long-term mutual relationship between consumers and service providers.

In this chapter, the author addresses the research questions 3&4:

RQ3: What are the dimensions of service consumption experience in the EME? Can service consumption experience in the EME be conceived at a higher level of abstraction as a second order factor for building a more parsimonious theory of the role of service consumption experience in relational exchange?(Study II)

RQ4: What is the role of service consumption experience in the development of long term exchange relationship in the EME? (Study II)

4.1 Proposed Research Framework

The following section provides the dimensions, antecedents, and consequents of service convenience in a comprehensive research framework. Figure 4.2 depicts the research model for Study II. The relevant literature and conceptualizations of the variables and the propositions derived from such review are examined in the following sub-sections.

4.1.1 Dimensions of Service Consumption Experience

In the EME, the traditional brick and mortar concerns about service consumption experience may not all be relevant. Drawn from the extant literature on consumer behavior, marketing, and the technology-based service innovation (Hirschman and Holbrook 1982; Hirschman 1984; Pine and Gilmore, 1998; Van der Heijden, 2004; Caru and Cova, 2006), this study identifies five dimensions of service consumption experience in the EME (see Figure 4.1) as consisting of (1) service emotion, (2) service sensation, (3) service immersion, (4) service participation, and (5) service playfulness.

Service Emotion in the EME: 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. Schmitt (1999) indicated that consumers are emotionally driven because consumption experiences are directed to achieve fantasies, feelings, and fun. Russell (1979) identified that the

consumer has two major dimensions of emotion: pleasantness-unpleasantness and arousal-quietness. Emotion has been considered as a very significant dimension of the consumption experience. Previous studies have found that consumer emotions could be evoked by marketing stimuli, product/service, advertisement, and brands (Schmitt, 1999). In the EME, Dabholkar (1996) found a strong positive effect of enjoyment of using self service technology on perceived overall service quality. For example, the consumer who is buying and using the online entertainment service would feel happy when consuming this service.

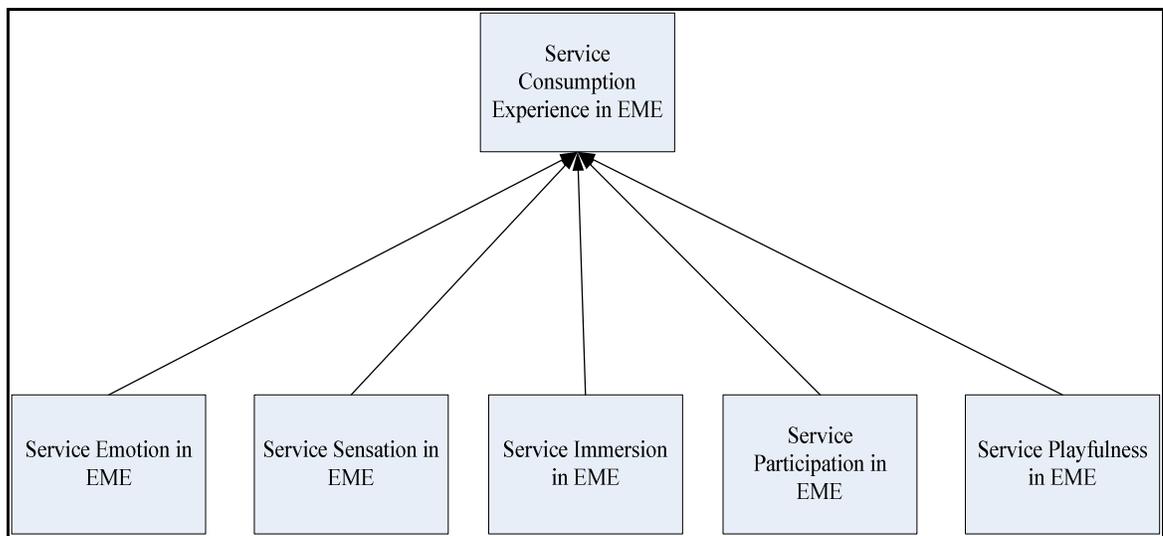


Figure 4.1: Service Consumption Experience Dimensions

Service Sensation in the EME: Human beings apply all of their perceptual senses when engaging with their immediate environment. It was shown that the more effectively an experience engages the senses, the more memorable it will be (Hirschman, 1984). Hirschman gave the example of service sensation in a physical environment, where

consumers could seek sensory simulation from both an internal and external nature like watching a horror movie or ingestion of hallucinogenic drugs. In an online environment, the reputation system provides reviewers who are also consumers in the EME a great platform to share their sensation including their experience of vision, audition, taste, smell, and touch. With advances in technology, companies are providing real life experience and sensation in the EME, such as the Second Life online virtual world.

Service Immersion in the EME: Caru and Cova (2006) have indicated that “...immersion concept literally implies becoming one with the experience and therefore conveys the idea of a total elimination of the distance between consumers and the situation, the former being plunges in a thematised and secure spatial enclave where they can let themselves go” (pg. 127). According to Pine and Glimore (1999), there is an environmental relationship that unities the consumer with the event or performance. Consumers’ immersion becomes physically or virtually a part of experience itself. For example, when consumers participate in the mobile game services, they are connected with a network and gaining real time experience when playing against opponents on the other side of the world. Pine and Glimore (1999) emphasized that five senses should all be engaged in consumers’ consumption experience; the more senses an experience engages, the more effective and memorable it can be.

Service Participation in the EME: This dimension demonstrates the level of consumers’ participation in the spectrum where on one end of the experience lies passive participation such as reading news and advertisement in the online environment; on the

other end the experiences are actively gained which means that consumers personally affect the performance or event that yields the experience. For example this could be searching on the internet for a specific service (Pine and Gilmore, 1998; 1999). The online education service is a typical EME service to engage the consumer in an active participation experience.

Service Playfulness in the EME: The service playfulness is defined as the degree to which the consumer perceives the online provider's website to be enjoyable (Wulf *et al.*, 2006). Seiders *et al.* (2007) indicated that hedonic consumers view buying a product/service as an enjoyable and rewarding experience in 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). Previous literature did not differentiate emotion from playfulness. In this research, the emotion dimension relates to consumers' valenced affective reaction to perceptions of service in the EME, while the playfulness reflects in intrinsic enjoyment that comes from engaging in activities in which consumers participate or immerse themselves (Mathwick *et al.*, 2001).

Past research points to service consumption experience as being a multi-dimensional construct and some studies have alluded to an emergent second order factor model to parsimoniously capture this important construct (Havlena and Holbrook, 1986; Schmitt, 1999; Firat, 1987; Pine and Gilmore, 1998; Mathwick *et al.*, 2001);

Hirschman,1984). Following this line of reasoning, this research proposes a second order factor model for service consumption experience in the EME (see Figure 4.1) where the first-order factors such as service emotion, service sensation, service immersion, service participation, and service playfulness are all latent formative factors underlying service consumption experience. This allows author to model the five latent dimensions under a unitary representation. In this conceptualization, it is assumed that these formative first order factors ‘cause’ the second order factor (Chin, 1998) and in this research it is the service consumption experience in the EME construct. The formative second order model provides a coherent and parsimonious representation of this multi-dimensional phenomenon in explaining exchange relationship development between consumers and service providers in the EME (Pavlou *et al.*, 2008). In this research, concept, this second order service consumption experience construct plays a mediating role in the context of exchange relationship development between the consumers and service providers.

4.1.2 Antecedents of Service Consumption Experience in the EME

Based on the characteristics of the EME and the definition of service in the EME, this study proposed two categories of services characteristics: information technology use and service quality as the major antecedents of service consumption experience in the EME.

Information Technology Use

Today service providers have begun to use various technologies, including the internet, mobile networks, online communities, etc., to allow business-to-consumer

services electronically without being mediated through firm employees (Meuter *et al.*, 2003). Certain self-service technologies provide consumers with different options and experience in the EME. Consumers' perception of technology will have significant influence on their level of satisfactory experience (Meuter *et al.*, 2003). In conceptualizing the use of IT, the Technology Acceptance Model (TAM) has been widely adopted in IS literature (Davis, 1989; Venkatesh *et al.*, 2003; Tan *et al.*, 2007). This study adapts two major constructs from TAM: perceived ease of use and perceived usefulness.

Perceived Ease of Use

Perceived ease of use refers to "the degree to which the prospective user expects the target system to be free of effort" (Davis *et al.*, 1989, pg.985). This internal belief is tied to an individual's assessment of the mental effort involved in using a system (Davis 1989). Williams (1994) pointed out that U.S. consumers suffer from some degree of technophobia. In summary, the ease of use perception of IT will affect the consumer's experience and willingness to use the technology-based service in the EME.

Hypothesis 4.1: *Perceived ease of use is positively associated with service consumption experience in the EME.*

Perceived usefulness

Perceived usefulness refers to a "prospective user's subjective probability that using a specific application will increase his or her ... performance" (Davis *et al.*, 1989,

pg.985). Online technology improves the service consumption process with more uniformity and less difficulty than the equivalent manual activity (Yale and Venkatesh, 1986). Meuter *et al.* (2003) summarized that consumers perceive usefulness when they are using the technology based self-services in the following manner: first, the transaction in the EME could be completed through a more effective process; second, enjoyment or feelings of independence are possibly achieved; third, such self-service systems are perceived to deliver higher quality service; fourth, the technology based self-service provides cost savings; the final one is that there is no other option to consume certain types of services. Therefore, perceived usefulness of service in the EME would impact consumer's consumption experience.

***Hypothesis 4.2:** Perceived usefulness is positively associated with service consumption experience in the EME.*

Service Quality

Electronic service quality is a well-established concept in prior service and IS literature (Zeithaml *et al.*, 2000; Loiacono *et al.*, 2002; Parasuraman *et al.*, 2005, Fassnacht and Koese, 2006; Collier and Bienstock, 2006; Tan *et al.*, 2007). Service quality in the EME is defined as the extent to which the electronic device facilitates efficient and effective consumer activities at service encounters (Parasuraman *et al.*, 1985, Zeithaml *et al.*, 2000). On the basis of prior service quality theories and electronic commerce studies, Tan *et al.* (2007) claimed that conceptualization of service should include considerations of both service content and delivery. Further, they empirically

investigated these two sub-dimensions of service quality in the context of e-government services. Hereby, this study has adopted these two dimensions as two important antecedents of service consumption experience in the EME.

Service Content Quality

Applying content and delivery concepts in this study, *service content quality is defined* as the extent to which complete, accurate, and timely content is provided to online consumers during the interaction process with user interface in the EME. 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 including liking, joy, pride, dislike, and frustration. This study proposes the following hypothesis in relation to service content quality

Hypothesis 4.3: Service content quality is positively associated with service consumption experience in the EME.

Service Delivery Quality

Service delivery quality is defined as the manner in which IT mediated service functionalities are made accessible to consumers via the service providers' websites as a delivery channel. "*Service delivery seems to imply service encounters that entail more intense and deliberate use of emotions*" (Luong, 2005, pg.118). 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). “*Experience, like goods and services, have to meet a customer need; they have to work; and they have to be deliverable*” (Pine and Gilmore, 1998, pg.102). Thus, the service delivery quality will have important influence on consumers’ consumption experience in the EME and therefore, this study proposes following hypothesis:

Hypothesis 4.4: *Service delivery quality is positively associated with service consumption experience in the EME.*

Interface Attractiveness

In the EME, the spatial layout and functionality are especially important since the availability of employee assistance is minimal (Zeithaml and Bitner, 2000; Berry *et al.*, 2002). Prior literature confirmed that interface attractiveness plays a significant role in consumption of a service or product in the EME (Cyr *et al.*, 2006; Mathwick *et al.*, 2001). Interface attractiveness is defined as the degree of visual appearance and audible features present in a site (Collier and Bienstock, 2006). Good and friendly interface design provides consumers the opportunity for an enjoyable experience in terms of emotion, sensation, immersion, participation, and playfulness. Consumers’ perception of visual appeal is driven by the design, physical attractiveness, and beauty inherent in the interface of the service context in the EME (Holbrook, 1994). Cyr *et al.* (2006) discovered that visual design aesthetics did significantly impact consumption experience of mobile service. Accordingly, interface attractiveness can influence consumers’

experience in the EME, and ultimately his or her long term relationship with a service provider. This study has the following hypothesis:

Hypothesis 4.5: Interface attractiveness is positively associated with service consumption experience in the EME.

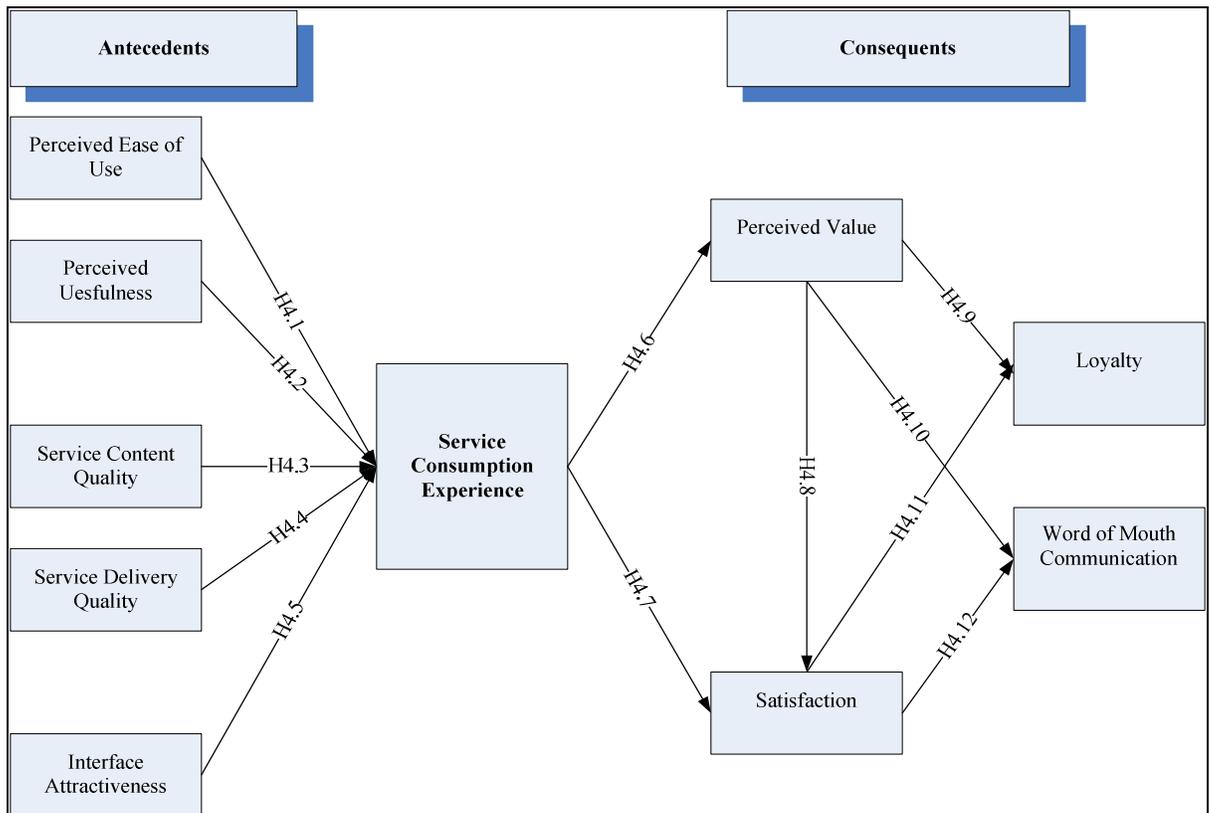


Figure 4.2: Proposed Research Model of Service Consumption Experience in the EME and its Antecedents and Consequents Related to the Development of Long Term Exchange Relationship

4.1.3 Consequents of Service Consumption Experience in the EME

Building strong customer relationships has been suggested as a means for gaining a competitive advantage in both marketing and IS literature. Dwyer *et al.* (1987) have indicated that “*consumer marketer benefit from attention to conditions that foster relational bonds leading to reliable repeat business*” (pg.12). Conditions conducive to developing relational bonds could be created that lead to customer retention and growth (Dwyer *et al.*, 1987; Malley and Tynan, 2000; Goldberg, 1988). Today IT and electronic devices have largely improved the conditions for relationship development between consumers and service providers in the EME.

The five service consumption dimensions respectively or together are involved in the experiential process when consumers interact with the service provider in the EME. The exchange relationships are yielded during the service consumption process when consumers consume certain services in the EME (Rust and Kannan, 2003). Such relationships are guided by higher order mental constructs such as consumers’ perceived value and satisfaction (Garbarino and Johnson, 2006).

Perceived Value

Consumer perceived value consists of subjective hierarchical preferences based on an individual’s situation-specific comparisons of one object with another. As one major component of service evaluation, the author believes that there is positive relationship between consumers’ perceived value and service consumption experience. “*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). Therefore, following hypothesis has been proposed.

Hypothesis 4.6: *Service consumption experience will positively influence consumers’ perceived value of service in the EME*

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). By applying expectancy-disconfirmation theory, Philips and Baumgartner (2002) clarified the role of consumption emotion in the satisfaction response and discovered that both positive and negative emotions influence satisfaction. Thus, this study presents the following hypothesis:

Hypothesis 4.7: *Service consumption experience positively influences consumers’ service satisfaction in the EME.*

Hallowell (1996) indicated that consumer satisfaction is the result of consumers’ perception of received value. Adapted from Bagozzi (1992) research on appraisal and emotion response, Lin and Wang (2006) suggest that more cognitively-oriented value

appraisal precedes affectively oriented satisfaction. Therefore, this study proposes the following hypothesis:

Hypothesis 4.8: Consumer perceived value is positively associated with consumer service satisfaction of service in the EME.

Loyalty

Perceived value and satisfaction involved in service evaluations are believed to summarize consumer knowledge and judgment with particular service providers and guide subsequent actions and loyalty of the consumer (Garbarino and Johnson, 2006). Prior literature has confirmed that perceived value and satisfaction are important determinants of consumer loyalty in the online environment (Lin and Wang, 2006; Gefen, 2002). Accordingly, in order to develop long-term mutual relationships, managers must make great efforts to improve service consumption experience of their services in the electronic environment from the first encounter, from purchasing, to delivery and beyond, as this can influence the service retention (customer loyalty) and service growth (word-of-mouth communication) (Bolton *et al.*, 2000). Thus, the following two hypotheses are proposed:

Hypothesis 4.9: Consumers' perceived value positively influences their loyalty in the EME.

Hypothesis 4.10: Consumers' satisfaction positively influences their loyalty in the EME.

Word-of-mouth Communication

Word-of-mouth communication has been recognized as an essential ingredient for successful long-term relationships of growth and points to the value of existing customers who spread good words about the company and its products and services (Anderson, 1998; Richins, 1983). Word-of-mouth communication has been found to be an important outcome of the exchange relationship between service providers and consumers (Richins, 1983; Srinivasan *et al.*, 2002; Harrison-Walker, 2001; Kumar *et al.*, 2007). Loyal customers always refer new customers to suppliers. In the online environment, “word-of-mouth” spreads even faster than “word-of-mouth” since online customers can, for example, use e-mail to broadcast a recommendation for a favorite service provider to dozens of friends and family members (Reichheld and Schefter, 2000; Dellarocas, 2003). “*Message boards, chat rooms, blogs, and virtual brand communities have become important venues for customer-generated media*” (Dwyer, 2007, pg.63). Today, with applications of blog, face book, MySpace, twitter, mobile phone, etc., consumers have got more effective ways to spread word-of-mouth (Park and Kim, 2008). Therefore, this study has included word-of-mouth communication as an outcome of the relational exchange between the consumers and service providers in EME.

Hypothesis 4.11: *Consumers’ perceived value positively influences their word-of-mouth communication in the EME.*

Hypothesis 4.12: *Consumers’ satisfaction positively influences their word-of-mouth communication in the EME*

In the following section, hypotheses related to antecedents and consequents of service consumption experiences are summarized.

4.1.4 Summary of Hypotheses

Table 4.1: Hypotheses Related to Antecedents of Service Consumption Experience

Hypothesis	Statement
<i>Hypothesis 4.1</i>	<i>Perceived ease of use is positively associated with service consumption experience in the EME</i>
<i>Hypothesis 4.2</i>	<i>Perceived usefulness is positively associated with service consumption experience in the EME</i>
<i>Hypothesis 4.3</i>	<i>Service content quality is positively associated with service consumption experience in the EME</i>
<i>Hypothesis 4.4</i>	<i>Service delivery quality is positively associated with service consumption experience in the EME</i>
<i>Hypothesis 4.5</i>	<i>Interface attractiveness is positively associated with service consumption experience in the EME</i>

Table 4.2: Hypotheses Related to Consequents of Service Consumption Experience

Hypothesis	Statement
<i>Hypothesis 4.6</i>	<i>Service consumption experience positively influences consumers' perceived value of service in the EME</i>
<i>Hypothesis 4.7</i>	<i>Service consumption experience will positively influences consumers' service satisfaction in the EME</i>
<i>Hypothesis 4.8</i>	<i>Consumers' perceived value is positively associated with consumer service satisfaction in the EME</i>

Hypothesis	Statement
<i>Hypothesis 4.9</i>	<i>Consumers' perceived value positively influences their loyalty in the EME</i>
<i>Hypothesis 4.10</i>	<i>Consumers' satisfaction positively influences their loyalty in the EME</i>
<i>Hypothesis 4.11</i>	<i>Consumers' perceived value positively influences their word-of-mouth communication in the EME</i>
<i>Hypothesis 4.12</i>	<i>Consumers' satisfaction positively influences their word-of-mouth communication in the EME</i>

4.2 Research Design

The following section explains the research approach and methodology adopted in Study II of this dissertation. It describes the methods used to gather and prepare information for use in testing the research hypotheses described in the previous chapter. The research methodology comprises four distinct stages: instrument development, pre-tests, pilot study, and the main study. In this chapter, stages one, two, and three are described and the procedure for conducting the main study is outlined. Section 4.3 discusses the main study and its results at length. (Please refer to section 3.2 on pg. 51)

4.2.1 Measurement Instrument Development

This study utilized a survey methodology in testing and assessing the proposed comprehensive research model (see Figure 4.2). 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.

The measures for each of the service consumption dimensions were adopted from prior consumption experience and experiential marketing research in IS, Consumer Behavior, Retailing, and Marketing literature with some modifications to fit this research context (Cyr *et al.*, 2006; Wulf *et al.*, 2006; Arnold *et al.*, 2005; Chaudhuri, 1997). The emotion has been interchangeably used with positive feeling, delight, and pleasure in prior literature. Arnold *et al.* (2005) examined customer delight in a retail context and compared terrible and delightful shopping experience; Chaudhuri (1997) developed an explanatory framework and demonstrated that there are significant impacts of consumers' positive/negative emotions on their perceived risk in developing loyalty with business vendors. The measurements for the Sensation and Immersion constructs are adapted from the Novak *et al.* (2000) study which investigated the experience in the online context. A four item scale of sensation dimension has been adapted from Steenkamp and Baumgartner (1992) which examine various consumer sensation seeking behaviors. Finally, four items for participation dimension are generated from Pine and Gilmore (1998) who emphasized that participation is a major dimension of consumer experiential realm.

Measures for perceived ease of use and perceived usefulness were obtained from existing empirical research (Gefen *et al.*, 2004). The service content quality and service delivery quality measures were adapted from Tan *et al.* (2007). The interface attractiveness measures were generated based on several interface design studies in IS and service literature (Heijen, 2005; Fassnacht and Koese, 2006; Collier and Bienstock, 2006). Minor modifications have been made to fit this study's context. The measurement of relational exchange constructs were generated from existing marketing literature to capture consumers' evaluation of service (perceived value and satisfaction) and their orientations for long-term relationship development (loyalty and word-of-mouth communication)(Oliver, 1992; Anderson, 1998; Gefen, 2002). All items were measured with a seven-point Likert-type scale (1 = Strongly Disagree to 5 = Strongly agree).

4.2.2 IRB Approval

Please refer to section 3.2.2 on pg. 52 of Chapter 3 and the Appendix.

4.2.3 Survey Administration

All measurements followed a refinement procedure with several pretests. The author first interviewed 27 business school students to get their understandings of service and service consumption experience in the EME. The subjects were also asked to provide a list of five services they had used most frequently in the EME for at least six months. This step helps author to capture consumers' comprehension and assessment of long term service consumption in the EME. Further, the results for this procedure are incorporated to the survey development in which the respondents were asked to identify one online

service provider they had used most frequently for at least six months. Based on their experiences of using such a service from this specific service provider, the subjects are asked to indicate their perceptions of each item provided in the survey. The services included electronic banking service, mortgage provider service, online music buying service, and online car insurance provider service. There is no statistical difference found between these different types of services (Pavlou and Fygenson, 2006). (Please refer to Section 3.2.3 on pg.52)

4.2.4 Pre-Tests

The survey instrument was first administrated to two business school professors (experts in IS research related to ecommerce and e-services) and three IS Ph.D. students. The aim of this pre-test was to examine the feasibility of the instrument and gain qualitative feedback from the respondents.

Based on the recommendations received from these five individuals, the instrument was refined for wording and a major change was the use of a 5-point Likert Scale instead of 7-point scale to assess the responses. All of the recommendations were duly acknowledged and necessary modifications were made to the instrument.

4.2.5 Pilot Study and Preliminary Result

A pilot study consists of data collection and analysis from a small set of subjects, which serves as a guide for the main study (Glass, 1997). The use of a pilot study is recognized as a critical part of a rigorous scale development methodology. A pilot study

is able to give preliminary warning about where the main research could potentially fail and where the possibility of the research protocol may not be followed correctly, or whether suggested methods or instruments are inappropriate or complicated (Teijlingen and Hundley 2001).

A larger scale pilot study was conducted with 90 business school students using the refined instrument. SmartPLS software was adopted to test reliability of this instrument. The results of pilot tests are displayed in Table 4.3 (Please refer to Table 3.3 on pg.53). General rules have been provided by prior IS research to validate survey instruments (Werts *et al.*, 1974; Straub, 1989, Moore and Benbasat, 1991, Amoako-Gyampah and Salam, 2004; Chin *et al.*, 2003). Reliability was assessed by using PLS internal consistency score. Typically, 0.70 is considered as the threshold of internal consistency for all variables (Nunnally and Bernstein, 1994; Pavlou and Fygenon, 2006). Author removed items (highlighted in red) if they failed in the reliability test threshold and cross-loaded on other constructs. For example, the first item for the perceived value construct is deleted since the loading is lower than .70.

Table 4.3: Results of Reliability Tests from the Pilot Study

Construct	Item	Reliability (Refined)
Perceived Usefulness	pu1	0.938
	pu2	
	pu3	
	pu4	
	pu5	
	pu6	
Perceived Ease of Use	peou1	0.947
	peou2	
	peou3	
	peou4	
	peou5	
	peou6	
Service Content Quality	sconten1	0.915
	sconten2	
	sconten3	
Service Delivery Quality	sdeliver1	0.902
	sdeliver2	
	sdeliver3	
Interface Attractiveness	inface1	0.914
	inface2	
	inface3	
	inface4	
	inface5	

Construct	Item	Reliability (Refined)
Service Emotion in the EME	emotion1 emotion2 emotion3 emotion4 emotion5	0.916
Service Sensation in the EME	sens1 sens2 sens3 sens4	0.841
Service Immersion in the EME	immers1 immers2 immers3 immers4 immers5 immer6	0.940
Service Participation in the EME	partic1 partic2 partic3 partic4	0.873

Construct	Item	Reliability (Refined)
Service Playfulness in the EME	playful1 playful2 playful3 playful4(deleted) playful5 playful6(deleted) playful7 playful8	0.922
Perceived Value	pv1(deleted) pv2 pv3 pv4 pv5	0.942
Satisfaction	satisf1 satisf2 satisf3 satisf4(deleted)	0.910
Customer Loyalty	loyalty1 loyalty2(deleted) loyalty3	0.869
Word-of-Mouth Communication	wordm1 wordm2 wordm3	0.915

In addition, the respondents gave verbal and written feedback upon completion of the survey. They were asked to make notes on the surveys of items that were unclear. Based on this feedback, changes were made to improve the layout of the survey form and the phrasing of some survey questions. The refined instrument was then distributed for a large scale data collection in United States. The next section details the process of the large scale data collection.

4.3. Data Analysis and Assessment of Proposed Research Model

This section presents the analysis of data collected through the large scale paper-based and online survey. Two major steps are conducted here. First, the measurement model is assessed following Fornell and Larcker, 1981; Nunnally, 1994; and, Pavlou and Fygenson, 2006. In this step, the survey scales were assessed to assure they were reliable, measured their respective constructs, and demonstrated convergent and discriminant validity so they could be used to test the research hypotheses. The second step is to test the structural model and proposed hypotheses to ensure the underlying theoretical linkages and the explanatory power of proposed research model.

4.3.1 Data Analysis Method

The structural equation modeling (SEM) approach is used to analyze the data for both the measurement model and structural model in this study since the SEM based procedure provides powerful ways to address key IS research questions (Chin and Todd, 1995). The SEM is able to provide the analysis of structured causal relationships among

multiple predictors and unobserved latent variables (Chin, 1998). The software used is SmartPLS 2.0 (Ringle et al., 2005). Partial Least Squares (PLS) is chosen because PLS uses a component based approach to estimation and places minimal restrictions on measurement scales, sample size, and residual distributions (Chin et al., 2003).

4.3.2 Sample Demographics

A total of 1,250 valid and usable responses were collected using paper based surveys (36.6%) and online surveys (63.4%) in the U.S. Respondents of the paper based surveys consisted of undergraduate students and MBA students from a business school in the university setting in the southeast who are also the service consumers in the EME. The respondents of online surveys are from a more diversified sample which includes student and non-student consumers of services in the EME. Among these respondents, 457 respondents were male (36.6%) and 793 were female (63.6 %t). Approximately 75.8 percent of respondents are between the ages of 18 to 25. 93.8percent of the respondents in the surveyed sample have some college experience or have already earned at least Bachelor's degree. All respondents of our study have the experience of using a service in the EME for at least 6 months to ensure that they have had time to develop a long-term relationship with the online service providers. Table 4.4 presents the details of descriptive statistics of respondents' characteristics (Please refer to Table 3.4 on pg.59).

Table 4.4: Descriptive Statistics of Respondents Characteristics (n=1250)

Measure	Value	Frequency	Percentage
Gender	Male	457	36.6%
	Female	793	63.6%
Age	18-25	948	75.8%
	26-35	205	16.4%
	36-55	87	7.0%
	>55	10	0.8%
Education	High school	77	6.2%
	Some college	846	67.8%
	Bachelor	219	17.4%
	Master	100	8.0%
	Ph.D.	8	0.6%
Income Level	<\$12,000	829	66.4%
	\$12,000--\$36,000	270	21.6%
	\$36,000--\$60,000	62	5.0%
	\$6,0000--\$96,000	35	2.7%
	>\$96,000	54	4.3%

The test of the means of each construct in the study for paper-based and online samples did not show any significant differences. The finding is in accordance to Ahuja et al. (2003); students and non-students demonstrated identical patterns of online purchasing behavior. Therefore, the results reported here are based on the statistical analysis of the combined data from both student and non-student samples collected from paper-based and online surveys.

4.3.3 Measurement Validation

In the following sections, 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 firstly using Cronbach's alpha (Cronbach, 1951). To ensure that items measured their respective constructs, construct validity of each item was then tested following Doll and Torkzadeh (1988). In this step, this study examined inter-construct correlation and conducted exploratory factor analysis 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). Finally, reliabilities of the modified scales were examined again using the Cronbach's alpha approach. The second order formative construct has also been validated in this section.

4.3.3.1 Descriptive Statistics

The descriptive statistics are reported in Tables 4.5 and 4.6 respectively. Reported statistics include Mean, Standard Deviation (S.D.), and Inter-construct correlation matrix. Please refer to Table 3.5 on pg.61 and Table 3.6 on pg.63).

Table 4.5: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct

	Perceived ease of use	Perceived usefulness	Service content quality	Service delivery quality	Interface Attractiveness	Service consumption Experience	Perceived value	Satisfaction	Loyalty	Word-of-mouth Communication
Perceived ease of use	0.89									
Perceived usefulness	0.50	0.90								
Service content quality	0.68	0.39	0.93							
Service delivery quality	0.67	0.38	0.85	0.93						
Interface Attractiveness	0.64	0.42	0.62	0.63	0.88					
Service consumption Experience	0.55	0.65	0.47	0.45	0.58	0.79				
Perceived value	0.74	0.56	0.70	0.69	0.61	0.60	0.86			
Satisfaction	0.75	0.46	0.69	0.68	0.58	0.56	0.73	0.95		
Loyalty	0.53	0.54	0.44	0.45	0.42	0.52	0.58	0.48	0.70	
Word-of-mouth Communication	0.54	0.62	0.47	0.45	0.41	0.63	0.58	0.52	0.49	0.90
*The diagonal elements represents the square root of AVE										

4.3.3.2 Reliability of Refined Instrument

General rules have been provided by prior IS research to establish convergent validity and discriminant validity.

Convergent validity was assessed in this research by using internal consistency scores. Prior studies have indicated that internal consistency for the constructs is further validated through composite reliability (Cronbach's Alpha) and Average Variance Extracted (AVE) (Fornell and Larcker, 1981; Tan et al., 2007). Typically, 0.70 is considered as the acceptable threshold of internal consistencies for all variables (Nunnally and Bernstein, 1994; Pavlou and Fyngenson, 2006). Cronbach's alpha is commonly used to establish internal consistency construct validity. Additionally, 0.70 is considered adequate for confirmatory purposes and 0.80 is considered good for confirmatory purposes (Doll and Torkzadeh 1988; Straub and Carlson 1989). After refinement of the survey instrument utilized in pilot study, all constructs had high reliability (Cronbach's alpha >0.8, AVE>0.7) in this study. Thus, the measurements fulfill the requirements of convergent validity.

4.3.3.3 Convergent and Discriminant Validity

To verify discriminant validity, Chin (2003) identified two general rules: “1) *Loadings are much higher on their hypothesized factor than on other factors (own-loadings are higher than cross-loadings)*, and 2) *when the square root of each construct's AVE is larger than its correlations with other constructs*” (Pavlou and Fyngenson, 2006, pg.129; Chin, 2003). As shown in Table 4.5, the square roots of all AVEs are above 0.70

which are much larger than all the cross-correlations. In addition, all items loaded well on their respective factors (Table 4.6) compared to the cross-loadings on other constructs. The above described tests demonstrated that all measures in this study have adequate convergent and discriminant validity.

Table 4.6: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Perceived Ease of Use (Reliability= 0.95; Gefen et al., 2004)				
ESP's website is easy to use.	4.10	0.96	0.88	0.88
It is easy to become skillful at using this ESP's website	4.02	0.96	0.88	0.88
Learning to operate this ESPs' website is easy.	4.05	0.92	0.91	0.91
This ESP's website is flexible to interact with.	3.94	0.97	0.86	0.86
My interaction with this ESP's website is clear and understandable.	4.03	0.93	0.90	0.90
It is easy to interact with this ESP's website.	4.03	0.90	0.89	0.89
Perceived Usefulness (Reliability= 0.95; Gefen et al., 2004)				
ESP's website is useful for searching and buying service.	3.71	1.01	0.86	0.86
ESP's website improves my performance in searching and buying a service	3.60	1.03	0.89	0.89
ESP's website enables me to search and buy a service faster.	3.64	1.00	0.92	0.92
ESP's website enhances my effectiveness in searching and buying a service	3.61	1.00	0.92	0.92
ESP's website makes it easier to search for and purchase a service.	3.65	1.02	0.91	0.91

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
ESP's website increases my productivity in searching and purchasing a service	3.60	1.03	0.88	0.88
Service Content Quality (Reliability = 0.92; Tan and Benbasat, 2007; Fassnacht and Koese, 2006)				
Generally, the service content offered on this ESP's website to support me in performing my transactions is satisfactory.	4.03	0.94	0.91	0.91
On the whole, the service content offered on this ESP's website is highly effective in supporting me to perform my transactions.	4.03	0.96	0.94	0.94
Generally, I am pleased with the service content offered on this ESP's website to support me in performing transactions	4.06	0.93	0.92	0.92
Service Delivery Quality (Reliability = 0.92; Tan and Benbasat, 2007; Fassnacht and Koese, 2006)				
The general technological mechanisms underlying various service functionalities of this ESP website are satisfactory.	4.00	0.92	0.92	0.92
Generally, the service functionalities are delivered in a professional manner in this ESP's website	4.08	0.91	0.93	0.93
Overall, the service functionalities are delivered efficiently via this ESP's website	4.06	0.92	0.93	0.93
Interface Attractiveness(Reliability=0.93; Heijen, 2005; Fassnacht and Koese, 2006)				
This service provider's website is visually pleasing	3.99	0.99	0.90	0.90
The lay-out of this service provider's website is attractive	3.92	0.96	0.92	0.92
The colors that are used on this service provider's website are attractive	3.85	0.98	0.87	0.87
Everything is clearly arranged in this service provider's website	3.99	0.99	0.81	0.81
Overall, I find this service provider's website to	3.94	0.93	0.91	0.91

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
be attractive				
Service Emotion in the EME (Reliability=0.91; Cyr <i>et al.</i>, 2006 ; Wulf <i>et al.</i>, 2006)				
Using the service is exciting	3.50	1.12	0.86	0.86
The process of using this service was pleasant	3.92	0.96	0.78	0.78
This service makes me happy	3.72	1.06	0.86	0.86
I have fun in using this service	3.54	1.11	0.89	0.89
I found using this service to be enjoyable	3.72	1.06	0.89	0.89
Service Immersion in the EME (Reliability=0.95; Novak <i>et al.</i>, 2000)				
I forget about my immediate surroundings when I use this service	2.87	1.24	0.84	0.84
Using this service often makes me forget where I am	2.58	1.31	0.90	0.90
After using this service, I feel like I come back to the “real world”	2.69	1.31	0.90	0.90
When I use this service, I feel I am in a world created by the Service provider’s site I visited	2.68	1.32	0.92	0.92
When I use this service, my body in the room, but my mind is inside the world created by the websites visit	2.59	1.33	0.92	0.92
When I use this service, the world generated by the sites I visit is more real for me than the “ real world”	2.43	1.33	0.87	0.87
Service Sensation in the EME (Reliability=0.81; Jenda <i>et al.</i>, 2002)				
This service provider provide picture that allow me to view a product/service from multiple angles (i.e. front view, side view, rear view)	3.10	1.20	0.78	0.78
This service provider makes it possible for me to contact someone who has already bought/used this product/service to obtain a testimonial	3.11	1.19	0.84	0.84
This service provider has the website that makes				

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
you feel like you are part of community				
This service provider provides online chat function for potential customer-salesperson interaction.	3.36	1.14	0.82	0.82
	3.11	1.20	0.73	0.73
Service Participation in the EME (Reliability=0.84; Pine and Gilmore, 1998)				
I actively search information from this service provider	3.41	1.16	0.90	0.90
	3.43	1.11	0.92	0.92
I actively purchase the service from this service provider	3.58	1.14	0.92	0.92
I go to this service provider's website directly to search information	3.49	1.15	0.88	0.88
I go to this service provider's website directly to purchase service				
Service Playfulness in the EME (Novak <i>et al.</i>, 2000, MS; Cao <i>et al.</i>, 2005)				
I feel creative when I use this service provider's website	3.08	1.15	0.81	0.81
	3.33	1.20	0.73	0.73
I feel playful when I use this service provider's website	3.23	1.11	0.05	Dropped
I feel unimaginative when I use this service provider's website(R)	3.58	0.99	0.70	0.70
I found that this service provider's website motivates customers to feel participation	3.36	1.15	0.90	0.90
I found that this service provider's website is fun	3.35	1.20	0.87	0.87
I found this service provider's website is entertaining				
Perceived Value (Reliability = 0.91; Lin and Wang, 2006)				
The prices I pay for service from this online ESP represent a very good deal.	3.69	1.01	0.76	0.76
The time I spend in order to use this service from this ESP's site is highly reasonable.	3.92	0.97	0.87	0.87

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
The effort involved in using this service at this ESP's site is worthwhile.	3.99	0.94	0.90	0.90
The service consumption experience at this ESP's site is excellent.	3.88	0.95	0.88	0.88
I found significant value by using service from this provider.	3.95	0.96	0.86	0.86
Satisfaction (Reliability = 0.88, Oliver 1992)				
Overall, I am satisfied with this ESP	4.13	0.94	0.95	0.95
I did the right thing when I decided to use this ESP	4.05	0.96	0.95	0.95
I regret doing business with this ESP (R).	2.43	1.40	0.20	Dropped
Loyalty (Reliability = 0.87, Gefen, 2002)				
I have a strong relationship with this ESP	3.14	1.41	0.74	Dropped
I am likely to switch to another ESP in the near future. (R)	2.60	1.28	-0.10	Dropped
I will choose this ESP next time when I purchase same service	3.76	0.99	0.98	1.00
Word-of-Mouth Communication (Reliability = 0.87, Anderson, 1998; Richins, 1983)				
I often recommend this ESP to others	3.70	1.11	0.91	0.91
I tell my friends about this ESP	3.64	1.11	0.92	0.92
I want my friends to buy from this ESP	3.49	1.05	0.86	0.86
ESP stands for Electronic Service Provider identified by subject				

The reliability of each construct (see Table 4.6 above) in this study exhibit acceptable levels (Nunnally, 1978; 1994). The reliabilities range from 0.87 to 0.95 which are considerably higher than the typical cutoff value of 0.70 (Nunnally, 1978; 1994; Doll and Torkzadeh 1988; Straub and Carlson 1989). The loadings of each item on their

respective constructs were also very high when the items were allowed to simultaneously cross-load on other constructs in the study. Four items were dropped due to poor loading or due to higher cross-loading with other constructs (see Table 4.6). But the remaining items exhibited very high loading on their respective constructs.

4.3.3.4 Validation of Formative Second-Order Construct

To estimate the formative second-order construct Service Consumption Experience in the EME, this study modeled the coefficients (γ_i) of each first-order factor to the latent second-order factor following Chin (1998; 2003), Diamantopoulos et al. (2008), and Pavlou and Sawy (2006). (Please refer to section 3.3.3.4 on pg.67).

The second-order formative construct of service consumption experience was formed by calculating the weights of the first-order constructs to the second-order construct (Edwards 2001; Pavlou and Sawy, 2006) using a principal components factor analysis (Diamantopoulos and Winklhofer 2001; Diamantopoulos *et al.*, 2008).

As shown in Figure 4.3 below, the impact of all first-order constructs that capture the various dimensions of service consumption experience in the EME are significant ($p < .01$). This study examined the correlations among the first-order factors and they were all significant ($p < 0.01$). Significant correlations among the first-order constructs suggest that the first-order constructs may belong to the same set, even though formative constructs need not be correlated (Chin, 1998). Author also tested whether the second order construct fully mediates the impact of the first-order constructs. This step ensures that the second-order construct is a more parsimonious representation of the first-order

constructs and is able to fully capture their predictive power on dependent variables (Chin 1998). In short, these tests support the proposed second-order formative model of Service Consumption Experience and verify its construct validity.

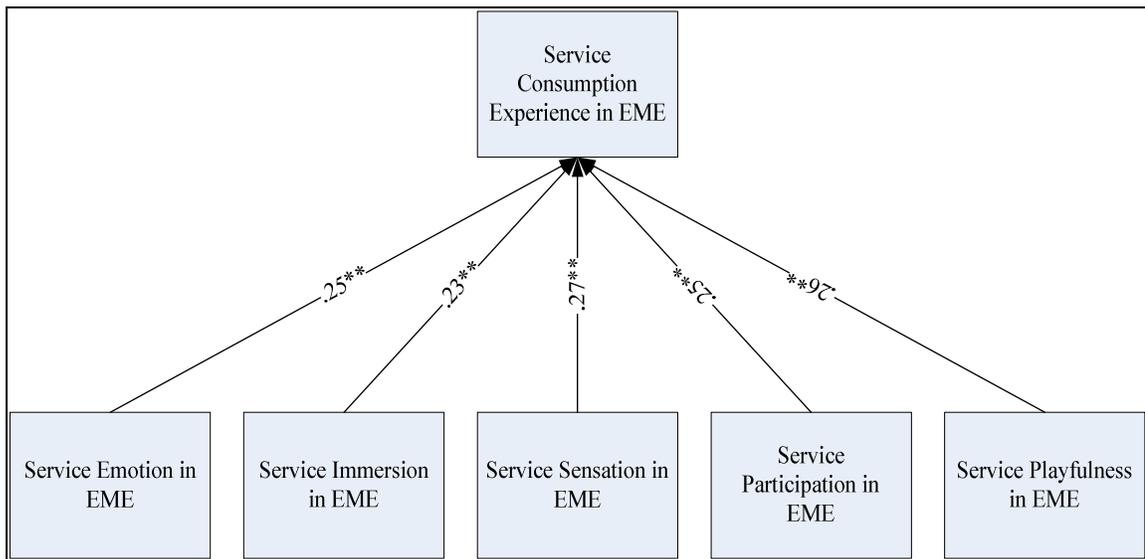


Figure 4.3 Formative Relationships between First-Order Constructs and Second-Order Formative Construct of Service Consumption Experience

4.3.4 Testing the Structural Model

In this section, author presents the structural model test and reports the results of the hypothesis tests.

4.3.4.1 Hypothesis Tests

Antecedents of Service Consumption Experience

The results of the PLS structural model test reflect that there is significant positive association between Perceived Usefulness and Service Consumption Experience in the EME ($b=0.54$, $p<0.01$), while Perceived Ease of Use does not have any impact on Service Consumption Experience in the EME ($b=0.08$, $p>0.1$). The results demonstrated that Interface Attractiveness has strong influence on Service Consumption Experience in the EME ($b=0.28$, $p<0.01$). However, the results did not show a significant relationship between Service Content Quality and Service Consumption Experience in the EME ($b=0.03$, $p>0.1$) and there is no statistical support for the relationship between Service Delivery Quality and Service Consumption Experience ($b=0.05$, $p>0.1$). These results provide support for H4.2 and H4.5 respectively; however, H4.1, H4.3, and H4.4 were not supported. These antecedents together explained 54.5% variance of Service Consumption Experience in the EME.

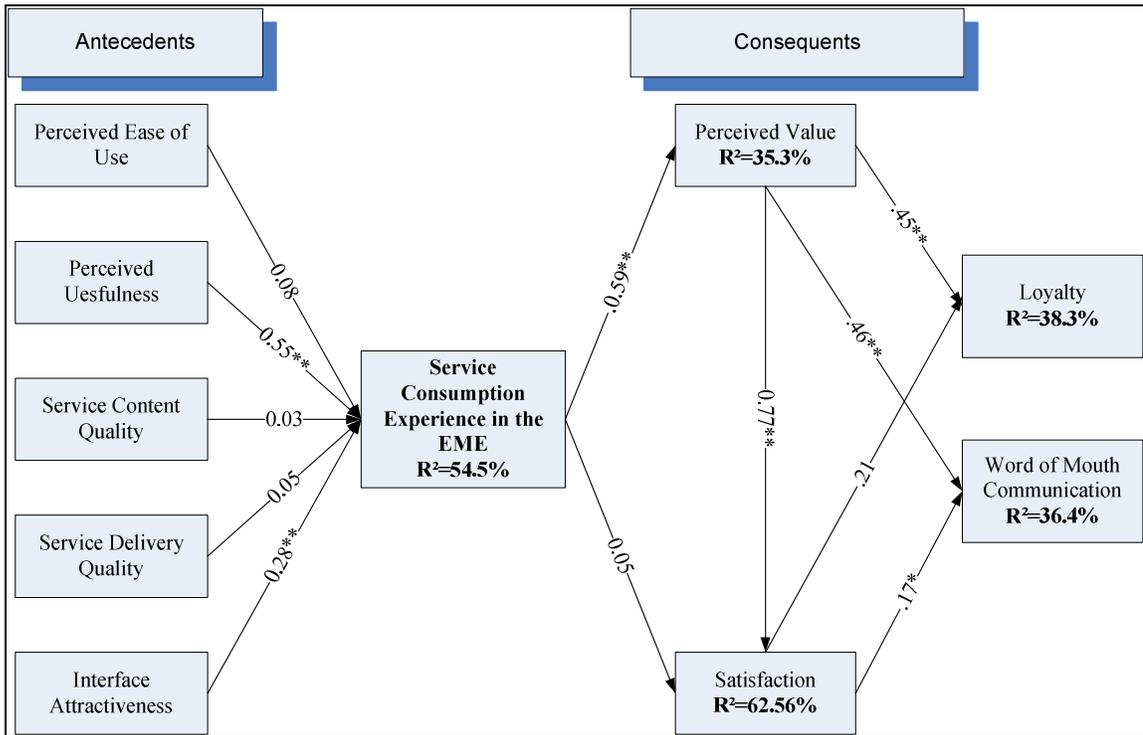


Figure 4.4: PLS Results for Structural Model

** Significant at $p < 0.01$, * Significant at $p < 0.1$

Consequents of Service Consumption Experience

As depicted by the consequent component of the research model (Figure 4.4), Service Consumption Experience shows strong impact on consumers' Perceived Value ($b = .59$, $p < 0.01$). Service Consumption Experience does not have direct impact on consumers' Satisfaction in the EME ($b = 0.05$, $p > 0.1$), but has indirect impact on Satisfaction when mediated by Perceived Value. There is strong association between Perceived Value and consumers' Satisfaction ($b = 0.76$, $P < 0.01$). This second order formative construct of Service Consumption Experience explains 35.3% of variance of

consumers' Perceived Value of service in the EME and 62.5% of variance of Satisfaction of service in the EME. Therefore, the hypotheses 4.6 and 4.8 are supported.

All hypotheses in relational exchange are supported except the relationship between Satisfaction and consumer Loyalty. The Perceived Value has significant impacts on Loyalty ($b=.45$, $p<0.01$) and Word-of-Mouth Communication ($b=.46$, $p<0.01$). Satisfaction has weak impact on Loyalty ($b=.20$, $p>.10$), but it is moderately associated with Word-Of-Mouth Communication ($b=.17$, $p<0.1$). The research model is able to explain 38.3% of variance of Loyalty and 36.4% of variance of Word-of-Mouth Communication respectively. These results support hypotheses H4.9, H4.10, H4.12, but do not support H4.11.

4.3.5 Summary of Results

The summary of hypotheses tests are displayed in Tables 4.7 and 4.8.

Table 4.7: Summary of Hypotheses Tests and Results (Antecedents)

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H4.1	Perceived ease of use → Service consumption experience in the EME	(+)	0.08	0.92	No
H4.2	Perceived usefulness → Service consumption experience in the EME	(+)	0.54	5.97	Yes

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H4.3	Service content quality → Service consumption experience in the EME	(+)	0.03	0.20	No
H4.4	Service delivery quality → Service consumption experience in the EME	(+)	0.05	0.48	No
H4.5	Interface Attractiveness → Service consumption experience in the EME	(+)	0.28	2.47	Yes

Table 4.8: Summary of Hypotheses Tests and Results (Consequents)

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H4.6	Service Consumption experience in the EME → Perceived value	(+)	0.59	8.30	Yes
H4.7	Service consumption experience in the EME → Satisfaction	(+)	0.05	0.76	No
H4.8	Perceived value → Satisfaction	(+)	0.76	7.84	Yes
H4.9	Perceived value → loyalty	(+)	0.45	2.61	Yes
H4.10	Satisfaction → loyalty	(+)	0.20	1.33	No
H4.11	Perceived value → word-of-mouth	(+)	0.46	3.24	Yes
H4.12	Satisfaction → word-of-mouth	(+)	0.17	1.60	Yes

4.4 Discussion

This second study in this dissertation investigates dimensions of service consumption experience in the EME. Five first order dimensions of service consumption experience are defined: service emotion in the EME, service immersion in the EME, service sensation in the EME, service participation in the EME, and service playfulness in the EME. A second order formative construct is created to represent a global abstraction of service consumption experience. The results reflected that all five service consumption dimensions contribute to consumers' overall service consumption experience. The formative relationship between first order service consumption experience dimensions and second order service consumption experience construct shows that each service consumption experience dimension is statistically significant to consumers' overall experiential perceptions. Therefore, service providers should design and wrap the above five experience dimensions around their traditional offerings. These experiences occur when the service providers intentionally engage the individual consumers in ways that create a memorable event that captures the above five dimensions. Therefore, one of the most important strategies for the service providers in the EME is to adopt the consumption experience to define and deliver their services (Pine and Gilmore, 1998).

This study also validates the scale of service consumption experience in the EME. Both convergent validity and discriminant validity have been achieved to facilitate evaluation of latent structure of service consumption experience dimensions, second order construct, as well as the overall research framework. Our study is the first to

introduce this significant service consumption experience as a second order formative construct in the EME to IS research and to present validated instruments for future research efforts.

Additionally, this research identified several major antecedents and consequents of service consumption in the EME. The analytical framework demonstrated strong explanatory power of service consumption experience and relational exchange in the EME which validated conceptual models and most theoretical hypotheses proposed in this research. Perceived usefulness shows significant influence on consumption experience in the EME. The growing utilization of technology in the EME presents opportunities for service providers to retain current consumers and attract potential consumers if they can provide usefulness and benefit of the services in the EME. The service in the EME must be designed with focus on the consumer. The service providers must consult consumers to ensure that the service they provide addresses consumers' needs based on their experiences. Although the statistical result didn't show significant association between perceived ease of use and consumption experience in the EME, literature on technology anxiety has indicated that ease of use significantly impacts the user's experience (Meuter *et al.*, 2003). Service providers must avoid technological complexities to minimize the negative feeling of using technology in the EME and provide more comfortable options to consumers in the EME.

Service content quality and service delivery quality did not show significant impacts on service consumption experience in the EME. However, literature demonstrated that poor content quality and delivery quality of service result in the highest

level of complaint from consumers (Meuter *et al.*, 2000). So the service providers who are also the experience stagers must eliminate negative cues that may cause a bad consumption experience (Pine and Glimore, 1998), by improving the service content quality and service delivery quality.

Interface attractiveness shows great influence on the consumer consumption experience. Cry *et al.* (2006) have indicated that aesthetics of the interface must be a critical part in designing an overall enjoyable user experience. Previous research has also demonstrated that the greater relative importance of direct experience over advertising in the consumer decision process (Hoch and Ha, 1986). In addition, the interaction of advertising and experience may predispose consumers to use experience to confirm product/service claims made by advertising (Deighton, 1984). Thus, this study found impact of interface on consumption experience. This should enable more comprehensive evaluation of the effectiveness of the advertising of services in the EME.

Formed by the five consumption experience dimensions, the second-order service convenience in the EME construct played an important mediating role between its antecedents and the relational outcomes. This confirms that service consumption experience, similar to service convenience, serves as an indispensable factor for successful long-term relationships development in the EME. This study demonstrated that service consumption experience is able to explain respectively 36% and 63% of the variance of perceived value and satisfaction of service in the EME. This finding reflects the importance of consumption experience in developing long term exchange relationships between consumers and service providers in the EME. In addition, the

analyses demonstrates that perceived value and satisfaction accounts for respectively 38% and 36% of the variance of loyalty and word-of-mouth communication related to services in the EME. This result further confirms that we were able to properly conceptualize service consumption experience as a second order formative factor, with five formative dimensions, that mediated the antecedents and consequents in the context of the exchange relationship. This further provides proof of the validity of the second order factor model for service consumption experience in the context of a relevant nomological net (Chin, 1998).

In short, this study has been able to demonstrate that service consumption experience is a significant construct in relation to the development of long term exchange relationships with service providers in the EME. Given the great economic shift from an industrial economy to a service economy, the transition from selling services to selling experience is not easy task. Therefore, realizing the importance of the service consumption experience and its antecedents and relational consequents is critical for both service providers in the EME and IS researchers.

CHAPTER V

SERVICE CONVENIENCE, SERVICE CONSUMPTION EXPERIENCE, AND RELATIONAL EXCHANGE IN THE EME (ADDRESSES RESEARCH QUESTIONS 5&6)

5.1 Proposed Research Framework

This section presents the theoretical framework of the study III in this dissertation. Study III investigates an integrative framework of service convenience, service consumption experience, and relational exchange in the EME based on the theoretical development and empirical results from previous chapters.

5.1.1 Foundation and Description of Research Framework

The research framework is developed based on Study I and Study II which are detailed in chapter 3 and chapter 4. The following section summarizes theoretical development in these two chapters.

Study I presented in Chapter 3 of this dissertation has demonstrated that service convenience has played a mediating role between characteristics of service in the EME and the relational exchange dimension. On the basis of Seiders *et al.* (2000), Berry *et al.* (2002), Seiders *et al.* (2007), this study identified service convenience as a formative second order construct which has six service convenience dimensions in the EME:

service search convenience, service decision convenience, service access convenience, service transaction convenience, service benefit convenience, and service post-benefit convenience. Our findings indicated that all six convenience dimensions contributed to consumer overall service convenience perception. The formative relationship between first order service convenience dimensions and the second order service convenience construct shows that each service convenience dimension is equally important to the consumer's overall judgment. In addition, the first study revealed several major antecedents of service convenience. Consumer perceived ease of use and perceived usefulness had significant impact on service convenience. The enhanced service content quality and delivery quality would improve service convenience in the entire process when consumers are buying and using the services in the EME. The results of study I in Chapter 3 confirms that we were able to properly conceptualize service convenience as a second order factor, with six formative dimensions, that mediated between the antecedents and consequents in the context of exchange relationship.

Study II presented in Chapter 4 reflected that service consumption experience has also played a mediating role between the characteristics of service in the EME and the relational exchange dimension. Based on Hirschman and Holbrook (1982), Hirschman (1984), Pine and Gilmore (1998), Van der Heijden (2004), and Caru and Cova (2006)'s conceptualization of consumption experience, service consumption experience in the EME has also been conceptualized as a formative second order construct which has five dimensions: service emotion, service immersion, service sensation, service participation, and service playfulness. The formative relationship between first order service

consumption experience dimensions and the second order service consumption experience construct shows that each service consumption experience dimension is equally important to the consumer's overall perception of his or her service consumption experience in the EME. Two major antecedents of service consumption experience have been identified. Perceived usefulness is strongly associated with consumers' consumption experience of buying or using service in the EME. Interface attractiveness also shows important influence on consumption experience in the EME. The findings of Study II confirm that service consumption experience serves as an indispensable factor for successful long-term relationship development in the EME.

The main focus of Study III is the relationship between service convenience and service consumption experience and their roles in developing a long term exchange relationship between consumers and service providers in the EME. Although existing literature has not explicitly interpreted the correlation between service convenience and consumption experience, the underlying logic between these two constructs is implied in prior research. The conceptualization of service convenience with its six sub dimensions reflects a multistage, experiential consumption process (Seriders *et al.*, 2007; Katz, Larson, and Larson 1991; Maister 1985; Taylor 1994). Berry *et al.* (2002, pg. 11) state, "*Whether the inconvenience is deemed within or beyond the control of the firm has been found to play a central role in consumers' emotional responses and cognitive assessments*". Therefore, there could be a close relationship between service convenience and service consumption experience. Development of a long term exchange relationship by providing services convenience and consumption experience through the EME is vital

for any business to compete in the service-based economy. So it is important to provide an integrative view of service convenience and service consumption and identify their roles in mediating service characteristics in the EME and relational exchange dimensions.

Based on the above reasoning, this study proposes the following research questions:

RQ5: What is the relationship between service convenience and service consumption experience in the EME? (Study III)

RQ6: How does service convenience in conjunction with service consumption experience affect long-term exchange relationship in the EME? (Study III)

To answer these questions, this study develops the following comprehensive research framework and proposed hypotheses (See figure 5.1). The construct definitions and underlying theory of the hypothesized relationships have been developed in chapter 2, chapter3, and chapter 4.

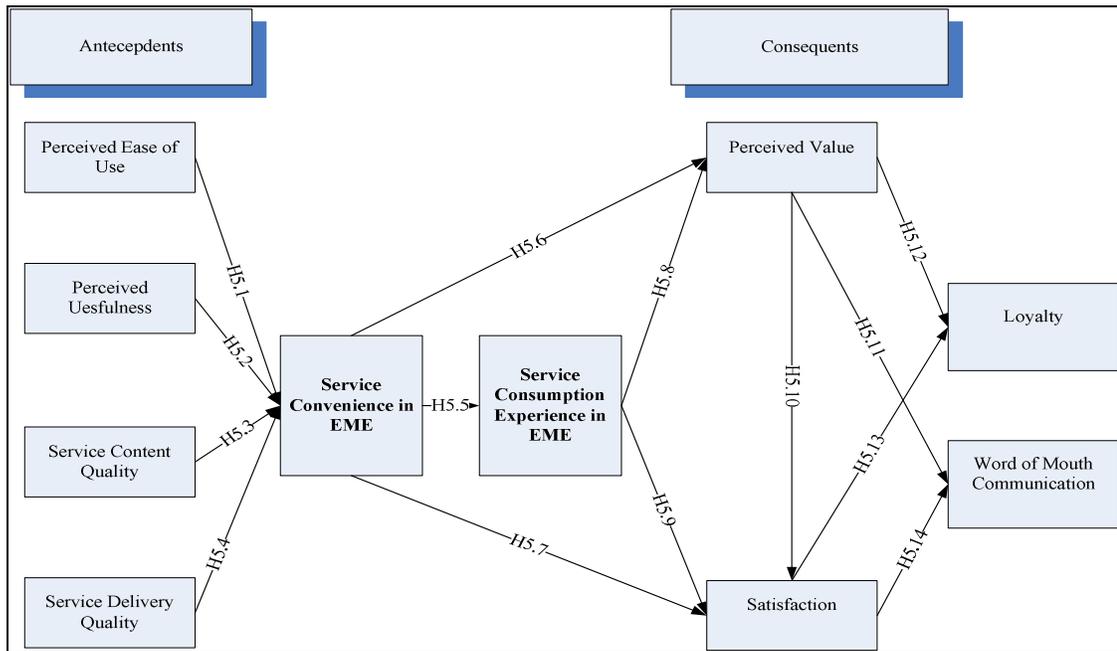


Figure 5.1: Proposed Research Framework of Service Convenience and Service Consumption Experience in the EME and their Antecedents and Consequents Related to the Development of Long Term Exchange Relationship

5.1.2 Summary of Hypotheses

The proposed hypotheses are summarized in Table 5.1.

Table 5.1 Proposed Hypotheses

Hypothesis	Statement
<i>Hypothesis 5.1</i>	<i>Perceived ease of use is positively associated with service convenience in the EME</i>
<i>Hypothesis 5.2</i>	<i>Perceived usefulness is positively associated with service convenience in the EME</i>
<i>Hypothesis 5.3</i>	<i>Service content quality is positively associated with service convenience in the EME</i>
<i>Hypothesis 5.4</i>	<i>Service delivery quality is positively associated with service convenience in the EME</i>

Hypothesis	Statement
<i>Hypothesis 5.5</i>	<i>Service convenience is positively associated with service consumption experience in the EME</i>
<i>Hypothesis 5.6</i>	<i>Service convenience will positively influence consumers' perceived value of service in the EME</i>
<i>Hypothesis 5.7</i>	<i>Service convenience will positively influence consumers' service satisfaction in the EME</i>
<i>Hypothesis 5.8</i>	<i>Service consumption experience will positively influence consumers' perceived value of service in the EME</i>
<i>Hypothesis 5.9</i>	<i>Service consumption experience will positively influence consumers' service satisfaction in the EME</i>
<i>Hypothesis 5.10</i>	<i>Consumers' perceived value will positively influence their satisfaction in the EME</i>
<i>Hypothesis 5.11</i>	<i>Consumers' perceived value will positively influence their loyalty in the EME.</i>
<i>Hypothesis 5.12</i>	<i>Consumers' satisfaction will positively influence their loyalty in the EME</i>
<i>Hypothesis 5.13</i>	<i>Consumers' perceived value will positively influence their word-of-mouth communication in the EME.</i>
<i>Hypothesis 5.14</i>	<i>Consumers' satisfaction will positively influence their word-of-mouth communication in the EME.</i>

5.2 Research Design

This study utilized a survey methodology in assessing the proposed comprehensive research model. The research design and instrument development follow the same procedure that is described in Study I and Study II. Please refer chapter 3.2 on pg. 51 and chapter 4.2 on pg.91.

5.3 Data Analysis and Assessment of Proposed Research Framework

5.3.1 Data Analysis Method

Following Study I and Study II, the structural equation modeling (SEM) approach was used to analyze the data for both the measurement model and structural model. The software used is SPSS version 16 and SmartPLS2.0.

5.3.2 Sample Demographics

The same sample used in Study I and Study II is used for this study. Please refer chapter 3.3.2 on pg.57 and chapter 4.3.2 on pg.100 for the details of sample demographics.

5.3.3 Measurement Model Validation

5.3.3.1 Descriptive Statistics

The descriptive statistics are reported in Tables 5.2 and 5.3 respectively. Reported statistics include Mean, Standard Deviation (S.D.), and Inter-construct correlation matrix. (Please refer to Table 3.5 on pg.61 and Table 4.5 on pg.103).

5.3.3.2 Reliability, Convergent and Discriminant Validity

Convergent validity was assessed by using PLS internal consistency score. Typically, 0.70 is considered as the threshold of internal consistency for all variables (Nunnally and Bernstein, 1994; Pavlou and Fygenon, 2006). After refinement of the survey instrument utilized in the pilot study, all constructs have high reliability (>0.80) in

the sample of this study. Thus, the measurements fulfill the requirements of convergent validity.

To verify discriminant validity, the cross-loadings and the average variance extracted (AVE) were analyzed. As shown in Table 5.2, the square roots of all AVEs are above 0.7 which are much larger than all the cross-correlations. In addition, all items loaded well on their respective factors (Table 5.3) compared to the cross-loadings on other constructs (Please refer to Table 3.6 on pg.63 and Table 4.6 on pg.105). The above tests have demonstrated that all measures in this study have adequate convergent and discriminant validity.

Table 5.2: Inter-Construct Correlation Matrix and Average Variance Extracted for Principal Construct

	Perceived ease of use	Perceived usefulness	Service content quality	Service delivery quality	Service Convenience in the EME	Service consumption Experience in the EME	Perceived value	Satisfaction	Loyalty	Word-of-mouth Communication
Perceived ease of use	0.89									
Perceived usefulness	0.59	0.90								
Service content quality	0.74	0.50	0.92							
Service delivery quality	0.74	0.50	0.85	0.93						
Service Convenience in the EME	0.81	0.63	0.82	0.83	0.88					
Service consumption Experience in the EME	0.55	0.70	0.46	0.46	0.60	0.78				
Perceived value	0.77	0.63	0.71	0.71	0.81	0.60	0.86			
Satisfaction	0.78	0.53	0.73	0.74	0.79	0.50	0.79	0.95		
Loyalty	0.59	0.58	0.52	0.52	0.60	0.52	0.61	0.56	0.70	
Word-of-mouth communication	0.53	0.68	0.46	0.46	0.56	0.69	0.56	0.49	0.51	0.92
*The diagonal elements represents the square root of AVE										

Table 5.3: Factor Loadings for the Measurement Model and Reliability for Principal Component Constructs

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Perceived Ease of Use (Reliability= 0.95; Gefen <i>et al.</i>, 2004)				
ESP's website is easy to use.	4.02	0.95	0.84	0.84
It is easy to become skillful at using this ESP's website	3.88	0.99	0.84	0.84
Learning to operate this ESPs' website is easy.	3.95	0.88	0.85	0.85
This ESP's website is flexible to interact with.	3.88	0.95	0.79	0.79
My interaction with this ESP's website is clear and understandable.	3.91	0.94	0.87	0.87
It is easy to interact with this ESP's website.	3.91	0.91	0.84	0.84
Perceived Usefulness (Reliability= 0.95; Gefen <i>et al.</i>, 2004)				
ESP's website is useful for searching and buying service.	3.53	1.09	0.84	0.84
ESP's website improves my performance in searching and buying a service	3.41	1.11	0.85	0.85
ESP's website enables me to search and buy a service faster.	3.45	1.07	0.90	0.90
ESP's website enhances my effectiveness in searching and buying a service	3.43	1.07	0.89	0.89
ESP's website makes it easier to search for and purchase a service.	3.47	1.10	0.88	0.88
ESP's website increases my productivity in searching and purchasing a service	3.38	1.11	0.86	0.86
Service Content Quality (Reliability = 0.92; Tan and Benbasat, 2007, ICIS; Fassnacht and Koese, 2006, JSR)				

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
Generally, the service content offered on this ESP's website to support me in performing my transactions is satisfactory.	3.88	0.99	0.87	0.87
On the whole, the service content offered on this ESP's website is highly effective in supporting me to perform my transactions.	3.91	1.01	0.92	0.92
Generally, I am pleased with the service content offered on this ESP's website to support me in performing transactions	3.93	1.01	0.91	0.91
Service Delivery Quality (Reliability = 0.92; Tan and Benbasat, 2007, ICIS; Fassnacht and Koese, 2006, JSR)				
The general technological mechanisms underlying various service functionalities of this ESP website are satisfactory.	3.91	0.92	0.90	0.90
Generally, the service functionalities are delivered in a professional manner in this ESP's website	3.99	0.96	0.91	0.91
Overall, the service functionalities are delivered efficiently via this ESP's website	3.95	0.96	0.91	0.91
Perceived Value (Reliability = 0.91; Salam)				
The prices I pay for service from this online ESP represent a very good deal.	3.45	1.17	0.72	Dropped
The time I spend in order to use this service from this ESP's site is highly reasonable.	3.77	0.98	0.85	0.85
The effort involved in using this service at this ESP's site is worthwhile.	3.84	0.97	0.86	0.86
The service consumption experience at this ESP's site is excellent.	3.74	0.95	0.84	0.84
I found significant value by using service from this provider.	3.81	0.96	0.82	0.82
Satisfaction (Reliability = 0.89, Oliver 1992)				
Overall, I am satisfied with this ESP	3.99	0.99	0.91	0.93
I did the right thing when I decided to use this ESP	3.90	0.99	0.91	0.91

Items Used For Principal Constructs	Mean	Std. Deviation	Loading	Loading (Refined)
I regret doing business with this ESP (R).	2.78	1.48	0.77	Dropped
Loyalty (Reliability = 0.87, Gefen, 2002)				
I have a strong relationship with this ESP	3.14	1.41	0.74	Dropped
I am likely to switch to another ESP in the near future. (R)	2.70	1.28	-0.50	Dropped
I will choose this ESP next time when I purchase same service	3.55	1.07	0.90	1.00
Word-of-Mouth Communication (Reliability = 0.81, Anderson, 1998; Richins, 1983)				
I often recommend this ESP to others	3.53	1.14	0.89	0.89
I tell my friends about this ESP	3.47	1.08	0.89	0.89
I want my friends to buy from this ESP	3.30	1.09	0.84	0.84
ESP stands for Electronic Service Provider identified by subject				

The reliability of each construct in this study exhibit acceptable levels (see Table 5.3 above). The reliabilities range from 0.81 to 0.95 which are considerably higher than the typical cutoff value of 0.70 (Nunnally, 1978). The loadings of each item on their respective constructs are also very high when the items were allowed to simultaneously cross-load on other constructs in the study. Several items were dropped due to poor loading or due to higher cross-loading with other constructs (see Table 5.3). However, the remaining items exhibited very high loading on their respective constructs.

5.3.3.3 Validation of Formative Second-Order Constructs

In the proposed research framework, two second order formative constructs have been defined: service convenience and service consumption experience. These two second-order formative constructs were formed by calculating the weights of the first-order constructs to the second-order construct (Edwards 2001; Pavlou and Sawy, 2006) using a principal components factor analysis (Diamantopoulos and Winklhofer 2001; Diamantopoulos *et al.*, 2008).

The factor loadings and reliability for first order constructs and formative second order constructs are displayed in table 5.4 (Please refer to Table 3.6 on pg.63 and Table 4.6 on pg.105)

Table 5.4: Items Loadings for First Order Constructs and Second Order Construct

Items Used For First Order Constructs and Second Order Construct	Mean	Std. Deviation	Loading
Service Decision Convenience (Reliability = 0.87; Berry <i>et al.</i>, 2002; Seiders <i>et al.</i> 2007)			
It took minimal time to get the information needed to choose this online ESP.	4.03	0.94	0.83
Making up my mind about what I wanted to buy from this online ESP was easy.	3.77	0.97	0.81
It was easy to get the information I needed to decide which online ESP to use.	3.97	0.90	0.86
It was convenient to decide if I by service from this online ESP	3.89	0.92	0.86
Service Access Convenience (Reliability = 0.90; Berry <i>et</i>			

Items Used For First Order Constructs and Second Order Construct	Mean	Std. Deviation	Loading
<i>al., 2002; Seiders et al. 2007)</i>			
It was easy to contact the online ESP	3.88	0.97	0.87
It did not take much time to reach the online ESP.	3.90	0.97	0.88
I was able to get to the online ESP's website quickly	4.09	0.97	0.91
It was convenient to access this online ESP's website	4.08	0.96	0.88
Service Search Convenience (Reliability = 0.87; Seiders et al., 2000)			
I could find the product/service I wish to buy from this online ESP very quickly.	3.96	0.97	0.90
It was easy to identify the product/service I wish to buy from this online ESP	3.97	0.95	0.92
It is convenient to search on this online ESP's site	3.97	1.02	0.86
Service Transaction Convenience (Reliability = 0.89; Berry et al., 2002; Seiders et al. 2007)			
I did not have to make much of an effort to pay for the service.	3.95	0.97	0.82
This online ESP made it easy for me to conclude my purchase.	3.97	0.93	0.90
It was convenient to transact with this online ESP	4.05	0.94	0.88
I was able to complete my purchase quickly.	3.97	0.95	0.88
Service Benefit Convenience (Reliability = 0.91; Berry et al., 2002; Seiders et al. 2007)			
I was able to get the benefits of the service with minimal effort.	4.08	0.95	0.91
This online service was easy to use.	4.17	0.95	0.93
The time required to receive the benefits of the service was appropriate.	4.07	0.95	0.92
Service Post-Benefit Convenience (Reliability = 0.88; Berry et al., 2002; Seiders et al. 2007)			
This online ESP resolved my problem quickly.	3.88	0.93	0.91

Items Used For First Order Constructs and Second Order Construct	Mean	Std. Deviation	Loading
It took little effort to arrange follow-up service.	3.81	0.92	0.88
This online ESP made it easy for me to resolve my problem	3.86	0.95	0.91
Service Convenience(Formative second order construct) (Reliability=0.94)			
Servcon1	4.51	0.97	0.88
Servcon2	4.46	0.95	0.89
Servcon3	4.63	0.93	0.91
Servcon4	4.29	0.94	0.84
Servcon5	4.45	0.98	0.86
Servcon6	4.57	0.94	0.88
Service Emotion in the EME(Reliability=0.91;Cyr <i>et al.</i>, 2006 ; Wulf <i>et al.</i>, 2006)			
Using the service is exciting	3.50	1.12	0.86
The process of using this service was pleasant	3.92	0.96	0.78
This service makes me happy	3.72	1.06	0.86
I have fun in using this service	3.54	1.11	0.89
I found using this service to be enjoyable	3.72	1.06	0.89
Service Immersion in the EME(Reliability=0.95; Novak <i>et al.</i>, 2000)			
I forget about my immediate surroundings when I use this service	2.87	1.24	0.84
Using this service often makes me forget where I am	2.58	1.31	0.90
After using this service, I feel like I come back to the “real world”	2.69	1.31	0.90
When I use this service, I feel I am in a world created by the Service provider’s site I visited	2.68	1.32	0.92
When I use this service, my body in the room, but my mind is inside the world created by the websites visit	2.59	1.33	0.92
When I use this service, the world generated by the sites I visit is more real for me than the “ real world”	2.43	1.33	0.87

Items Used For First Order Constructs and Second Order Construct	Mean	Std. Deviation	Loading
Service Sensation in the EME (Reliability=0.81; Jenda <i>et al.</i>, 2002)			
This service provider provide picture that allow me to view a product/service from multiple angles (i.e. front view, side view, rear view)	3.10	1.20	0.78
This service provider makes it possible for me to contact someone who has already bought/used this product/service to obtain a testimonial	3.11	1.19	0.84
This service provider has the website that makes you feel like you are part of community	3.36	1.14	0.82
This service provider provides online chat function for potential customer-salesperson interaction.	3.11	1.20	0.73
Service Participation in the EME (Reliability=0.84; Pine and Gilmore, 1998)			
I actively search information from this service provider	3.41	1.16	0.90
I actively purchase the service from this service provider	3.43	1.11	0.92
I go to this service provider's website directly to search information	3.58	1.14	0.92
I go to this service provider's website directly to purchase service	3.49	1.15	0.88
Service Playfulness in the EME (Novak <i>et al.</i>, 2000, MS; Cao <i>et al.</i>, 2005)			
I feel creative when I use this service provider's website	3.08	1.15	0.81
I feel playful when I use this service provider's website	3.33	1.20	0.73
I feel unimaginative when I use this service provider's website(R)	3.23	1.11	0.05
I found that this service provider's website motivates customers to feel participation	3.58	0.99	0.70
I found that this service provider's website is fun	3.36	1.15	0.90
I found this service provider's website is entertaining	3.35	1.20	0.87

Items Used For First Order Constructs and Second Order Construct	Mean	Std. Deviation	Loading
Service consumption experience (Formative second order construct) (Reliability=0.85)			
Servconsum1	4.40	1.11	0.80
Servconsum2	3.07	1.36	0.70
Servconsum3	4.39	1.18	0.80
Servconsum4	3.79	1.0	0.84
Servconsum5	4.04	1.20	0.84

To estimate the formative second-order construct Service Convenience in the EME and service consumption experience, this study modeled the coefficients (γ_i) of each first-order factor to the latent second-order factor following Diamantopoulos and Winklhofer (2001). As shown in Figure 5.2 below, the impacts of all first-order constructs that capture the various dimensions of Service Convenience in the EME and Service consumptions experience in the EME are significant ($p < .01$).

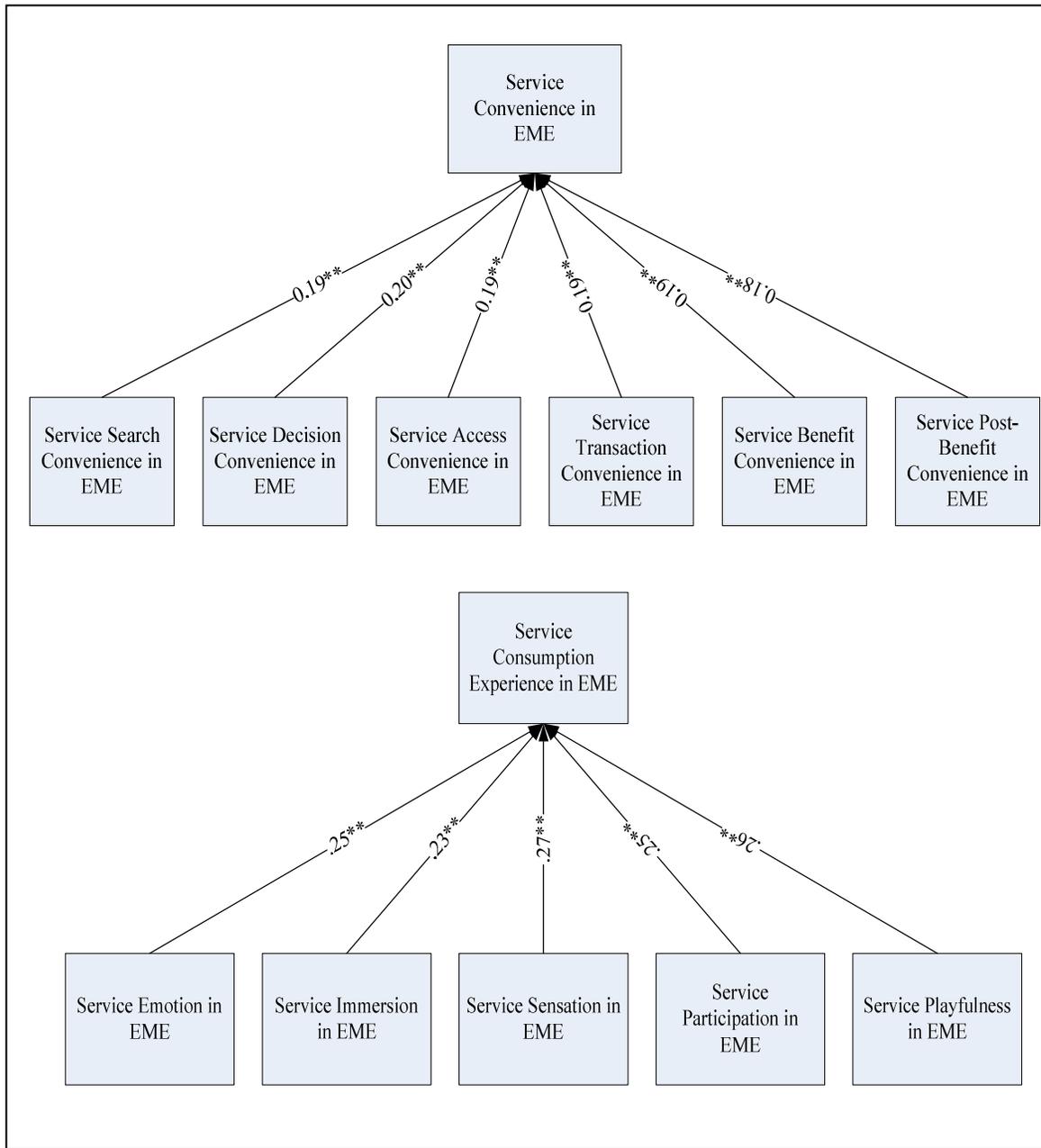


Figure 5.2 Formative Relationships between First-Order Constructs and Second-Order Constructs

** Significant at $p < 0.01$

This study has examined the correlations among the first-order factors and they are all significant ($p < 0.01$). Significant correlations among the first-order constructs suggest that the first-order constructs may belong to the same set, even though formative constructs need not be correlated (Chin, 1998). This study also tested whether the second order construct fully mediates the impact of the first-order constructs. This step ensures that the second-order construct is a more parsimonious representation of the first-order constructs and is able to fully capture their predictive power on dependent variables (Chin, 1998). In short, these tests support the proposed second-order formative model of Service Convenience and Service Consumption Experience and verify its construct validity. (Please refer to section 3.3.3.4 on pg.67 and section 4.3.3.4 on pg.110).

5.3.4 Testing the Structural Model

5.3.4.1 Hypothesis Tests

PLS path coefficients are shown in Figure 5.3. Item loadings of each construct are omitted for a clear exposition.

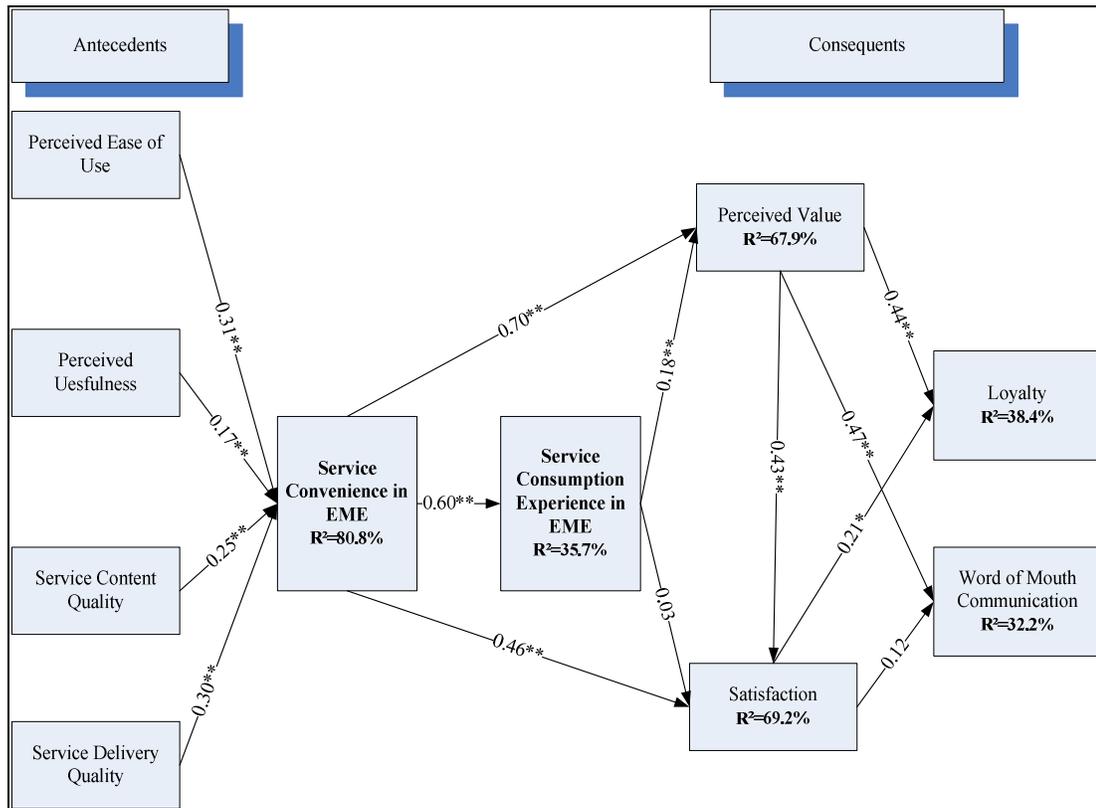


Figure 5.3: PLS Results for Structural Model

** Significant at $p < 0.01$, * Significant at $p < 0.1$

On the left hand side of the research framework, the relationships between four antecedents and service convenience are validated. Perceived ease of use is significantly associated with service convenience in the EME ($b=0.31$, $p < 0.01$). There is also a positive association between perceived usefulness and service convenience in the EME ($b=0.17$, $p < 0.01$). The results have demonstrated that service content quality has positive impacts on consumer service convenience perception ($b=0.25$, $p < 0.01$). Service delivery quality also strongly influenced service convenience in the EME ($b=0.30$, $p < 0.01$). These

results provide the support for H5.1, H5.2, H5.3, and H5.4 respectively. These four antecedents together explain 80.8% variance of service convenience in the EME

The results reflected that service convenience has significant influence on service consumption experience ($B=0.60$, $p<0.01$). The service convenience itself could explain 35.7% of variance of service consumption experience. In another words, service consumption experience is highly correlated with service convenience in the EME. This result strongly supports hypothesis 5.5.

Regarding the relationship between service convenience and relational exchange dimension, service convenience shows strong impact on consumer perceived value ($b=0.71$, $p<0.01$) and satisfaction ($b=0.46$, $p<0.01$), thereby supporting H5.6 and H5.7. Service consumption experience also significantly influences consumer perceived value ($b=0.18$, $p<0.01$). But the result didn't find any support between service consumption experience and consumer satisfaction ($b=0.03$, $p>0.1$). These results validated H5.6, H5.7, H5.8, but not H5.9.

All hypotheses in relational exchange are supported except the relationship between satisfaction and word-of-mouth communication. There is a strong association between perceived value and satisfaction ($b=0.43$, $p<0.01$). The perceived value has significant impacts on loyalty ($b=0.44$, $p<0.01$) and word-of-mouth communication ($b=0.47$, $p<0.01$). Satisfaction has moderate impact on customer loyalty ($b=0.21$, $p<.10$), but it has weak impact on word-of-mouth communication ($b=0.12$, $p>0.1$). Service convenience and service consumption experience together could explain 67.9% of

variance of perceived value. In the meantime, 69.2% of variance of consumer satisfaction could be explained by its determinants. As the relational outcome, 38.4% of variance has been explained to customer loyalty and 32.2% of variance of word-of-mouth communication respectively. These results validate H5.10, H5.11, H5.12, and H5.13, but not H5.14.

5.3.5 Summary of Results

Table 5.5 Summary of Hypotheses Tests and Results

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
H5.1	Perceived ease of use → Service convenience in the EME	(+)	0.31	2.96	Yes
H5.2	Perceived usefulness → Service convenience in the EME	(+)	0.17	2.40	Yes
H5.3	Service content quality → Service convenience in the EME	(+)	0.25	2.40	Yes
H5.4	Service delivery quality → Service convenience in the EME	(+)	0.30	3.18	Yes
H5.5	Service convenience in the EME → Service consumption	(+)	0.60	10.22	Yes

Hypothesis	Path Descriptions	Hypothesized direction	Path coefficients	T-statistic	Support
	experience in the EME				
H5.6	Service convenience in the EME→Perceived value	(+)	0.71	8.95	Yes
H5.7	Service convenience in the EME→ Satisfaction	(+)	0.46	3.54	Yes
H5.8	Service consumption experience in the EME→Perceived value	(+)	0.18	2.10	Yes
H5.9	Service consumption experience in the EME→ Satisfaction	(+)	0.03	0.69	No
H5.10	Perceived value→Satisfaction	(+)	0.43	3.15	Yes
H5.11	Perceived value→loyalty	(+)	0.44	3.04	Yes
H5.12	Satisfaction→loyalty	(+)	0.47	1.64	Yes
H5.13	Perceived value→word-of-mouth	(+)	0.21	3.11	Yes
H5.14	Satisfaction→word-of-mouth	(+)	0.12	1.16	No

5.4 Discussion

Two major objectives have been addressed in examining the relationships among service convenience, service consumption experience, and relational exchange in the

EME. First, this research reveals that there is a significant association between service convenience in the EME and service consumption experience in the EME. Both service convenience in the EME and service consumption experience in the EME are conceptualized as formative second order constructs. These two global evaluation constructs of service in the EME are formed by sub-dimensions. At the second order level, service convenience is highly correlated with service consumption experience ($b=0.60$, $T\text{-statistic}=10.22$, $p<0.001$). This indicates that service providers in the EME should engage service convenience into the consumer's service consumption experience. More specifically, the service provider should develop each service convenience dimension and wrap these convenience dimensions into each consumption experience dimension. For example, by reducing the time and effort costs of consumer decision-making and the complexity of service access with a clear and accessible interface in the EME, service providers could offer service decision convenience and service access convenience, which will further deliver a positive emotion to consumers. Another example could be development of service convenience to achieve an appropriate sensation experience. Inappropriate visual and aural cues can leave a consumer confused or lost (Pine and Gilmore, 1998). For instance, during the transaction process of online payment, the complex transaction process (the long membership form, advertisement, several offers for subscription, etc.) may cause negative/dislike emotion and passive participation in certain services in the EME. The great post-benefit convenience may also bring consumers an enjoyable consumption experience. Several prior studies have confirmed that the post-purchase service has important influence on the consumer's

mood (Luong, 2005). Therefore, service convenience is a significant determinant of service consumption experience.

The second objective of Study III is to test the role of service consumption experience in relation to service convenience and the effect upon long term exchange relationship in the EME. The proposed integrative framework provides strong explanatory power in terms of theory and statistical support to clarify the relationships among service convenience, service consumption experience, and relational exchange dimensions. All hypotheses are validated except the relationship between service consumption experience and satisfaction as well as the satisfaction and word-of-mouth communication. This is may be caused by the measurement of the satisfaction construct. There is one item under the satisfaction which is reverse coded. This causes inconsistent answers from respondents. Marketing and consumer research literature as well as ecommerce and IS literature have long identified value and satisfaction to be critical in determining the exchange relationship (Oliver 1992; Rose and Straub, 2001; Rose *et al.*, 2005). In addition, prior studies (Mano and Oliver, 1993; Dube and Menon, 2000; Philips and Baumgartner, 2002) confirmed that there is significant correlation between consumption experience and satisfaction. Thus, service consumption experience in relation to service convenience serves a momentous mediating role between the characteristics of service in the EME and the relational exchange dimensions.

The results of the structural model test establish the validity of both service convenience and service consumption experience as a second order formative construct

in the context of a nomological net (Chin, 1998). Such nomological network confirms the essentiality of two important constructs, service convenience and consumption experience, and their interrelationship in mediating their antecedents and relational outcomes in the EME. This study also fills a void in IS research in service convenience and service consumption experience in the EME as two intuitively and logically critical success factors to engender the long term mutual relationship between consumers and service providers in the EME.

CHAPTER VI

CONCLUSION

6.1 Introduction

This dissertation examines, from the consumer perspective, how service convenience and service consumption experience affect the long term relational exchange in the EME. Three studies are presented within this dissertation. The first study identifies and statistically validates the six dimensions of service convenience which is a formative secondary construct. This study also develops and empirically tests the nomological network of service convenience and its antecedents and consequents in the EME. The second study conceptualizes and empirically tests the five dimensions of service consumption experience which is also a second order formative construct. The service consumption experience also serves an important mediating role of its antecedents and relational exchange in the EME. The third study provides comprehensive view of the interrelationships among service convenience, service consumption experience, and relational exchange in the EME. Additionally, the third study confirms that service convenience in the EME and service consumption experience in the EME are highly correlated constructs which play a significant role in developing a long term relationship between consumers and service providers in the EME.

This dissertation also provides validated measurements with convergent validity and discriminant validity to facilitate evaluation of latent structure of service convenience construct and service consumption experience. This study also provided validation of the second order constructs as well as the overall research framework of the service convenience, service consumption experience, and relational exchange in the EME.

This chapter provides a summary of all the preceding chapters. The contributions to both academicians and practitioners are expatiated. This chapter also points to certain limitations of the present study. The chapter closes with some suggestions for future research directions and extending the current line of work beyond what has been established.

6.2 Research Contribution

The following sections present the significance of this dissertation to academicians and practitioners.

6.2.1 Significance of Research to Academicians

For academicians in IS and related fields, this research contributes to the current literature in the following significant ways.

First, this study attempts to fill a void by introducing two important concepts: service convenience in the EME and service consumption experience in the EME to IS research. Since service convenience and service consumption experience are intuitively and logically critical success factors to engender online consumers' value perception and

satisfaction, a rigorous development and validation of these two constructs should prove beneficial.

Second, this research also attempts to establish and test the antecedents and outcomes of service convenience in the EME and service consumption experience in the EME from the consumer's perspective. The comprehensive framework provides a complete nomological network for future research to investigate service convenience and service consumption experience in different settings so that systematic knowledge can be accumulated.

Third, there is an evident lack of research in the area of exchange relationship in the EME. This research makes significant methodological contributions in IS literature by laying the foundation for future research.

Fourth, the focus from the consumers' perspective adopted in this study can be translated for management in crafting an integrated service strategy in the EME. Specifically, convenience strategy and experiential strategy can be fueled by information technologies and their application to service consumption.

6.2.2 Significance of Research to Practitioners

The contributions of this dissertation for practitioners are threefold. Taken as a whole this research highlights the role of service convenience and service consumption experience in the EME – the success of convenience based on innovation (Kelly, 1958). In the EME, good and friendly service system design will reduce the time and effort costs in consumers' entire shopping experience (Berry *et al.*, 2002). Therefore, understanding

consumer requirements of ease of use and usefulness of electronic devices and the environment are critical. Companies could incorporate ease of use and usefulness into each type of service convenience design. In the meantime, online service providers should provide stable and reliable service content quality as well as service delivery quality, since consumers confident with the online company's service quality would have higher perceptions of service convenience and better consumption experience, which then will lead to a better consumer-provider relationship than those consumers who lack that confidence.

To develop a service convenience strategy in the EME, managers might analyze their business and examine the core issues underlying each convenience dimension. The creation of decision convenience could be derived from a clear and accessible interface which would reduce the time and effort costs of consumer decision-making in the EME. To establish service access convenience, companies must bring the service to consumer rather than bring the consumer to service (Berry *et al.*, 2002). Companies could develop a whole package of core services as well as the post-purchase service to facilitate consumers' access to service maintenance and product repair or exchange. The search convenience could be achieved through the provision of a clear online query and information availability features. Transaction convenience could be obtained from reducing the consumer's waiting time. Several online initiatives provide one-stop service to reduce the costs of consumers' time and effort for making payments. The benefit convenience is usually involved in hedonic service consumption. Consumers would like to invest time and effort to get a rewarding and enjoyable experience (Holbrook

&Lehmann, 1981; Seiders *et al.*, 2007). Finally, the post-benefit convenience needs to be offered since the consumer will expect less additional time and effort to reinitiate contact with the online service provider. Essentially, the integrated strategy of service convenience should be developed to improve customer perceived value and solidification of the long-term exchange relationship in the EME.

To develop an experiential strategy for consumption in the EME, service providers in the EME must design, engineer, organize, stage, and engage the wonderful and memorable consumption experience into the services in the EME (Pine and Gilmore, 1998; 1999; Dueb and Menon, 2000). The service providers must recognize the significance and necessity of each consumption experience dimension in developing consumer-provider relationship and wrapping consumption experience into service offering in the EME. To improve service emotion in the EME, Dueb and Menon (2000) suggest that service providers need to be trained to recognize various emotion expressions that consumers may show at the various in-process episodes. 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). Service immersion can be enhanced by the careful management of the environmental design and the spectacular thematisation in the EME (Caru and Cova, 2006). Furthermore, to stage an experience by envisioning a well-defined theme, the service providers are required to provide sustainable support to the consumer throughout the immersion process in the EME. To enhance service sensation, the service providers are encouraged to engage all five senses in their services in the EME. The advanced multimedia

technology facilitates the sensation engagement process and the virtual communities provide effective platforms for both consumers and service providers to share the sensible experience. To encourage active service participation, service providers must mix the memorabilia into their offerings since the consumer would recall the unique and memorable experience when they are seeking services in the EME. The service playfulness 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 (Eithier *et al.*, 2006).

Furthermore, this dissertation highlights the significant correlation between service convenience and service consumption experience in the EME. The finding underscores the need for service providers and managers to effectively engineer the service convenience strategy to improve the consumption experience and ultimately maximize the consumer's perceived value and satisfaction for long-term relationship development.

6.3 Limitations

The results presented in this dissertation are useful in understanding service convenience and service consumption experience, and their roles in developing long-term exchange relationship between consumers and service providers in EME. There are some limitations that need to be noted.

The validity of the results strongly depends on the sampling of the surveyed subjects. There is the possibility of lack of generalizability as the surveyed sample is a

large group of young people (75.6%). In addition, more than ninety percent of respondents in the sample of this study have at least some college experience. The subjects in the current sample—young generation and educated people—are very familiar with online shopping and have a high technology readiness (Parasuraman, 2000). Prior studies have also indicated that students are more open to the kind of innovations found in electronic services and are the first to adopt such innovations (Kim et al., 2007). This study can be enhanced in the future by including more demographic variables to see if there is clear segmentation in terms of the consumer's perception of service convenience, service consumption experience, and relational exchange.

Furthermore, as many prior behavioral studies do, with the exception of some longitudinal studies, the survey methodology used in this research offers only time and context specific understanding of the relationship development. By asking participants in the survey to identify a service and a service provider in EME that they used most frequently in the past six months, a self-selection bias might have been introduced to the sample. Therefore, the instrument could be refined to take care of this self-selection bias and a possible longitudinal study can be performed in future research.

Several items did not perform well in the measurement validation process causing low loadings on the intended factors (Satisfaction and Loyalty). The possible reason is that there are reverse coded items under these two constructs. Some respondents may provide consistent answers without noticing the reverse coded item. Although the study was able to provide a relatively good fit for the measurement and structural models, the effect of these dropped items during measurement model validation must be considered.

This dissertation has identified four major antecedents affecting service convenience in the EME and five antecedents of service consumption experience in the EME based on the existing literature. There could be other factors that contribute to consumers' perception of service convenience and consumption experience in the EME; for example, service enjoyment, competitive intensity, product category involvement, number of recent interactions, and product return experience are proposed as significant determinants of service convenience in marketing literature (Seider *s et al.*, 2007). Therefore, future research direction is to replicate the theoretical framework to extend the finding in this research using other constructs as identified above.

6.4 Future Research

The findings of this research and the limitations of this study in terms of theoretical and methodological considerations provide opportunities for future research.

First, as is true with all models of complex behavioral phenomena, the current model does not completely capture all antecedents and consequents of service convenience and service consumption experience in the EME. A further investigation on some behavioral, technological, and demographical characteristics may bring more rich and insightful information to current research models.

Second, the current study did not find significant differences across various service types in the EME. There could be uniqueness of a specific service that may result in different perceptions of service convenience and service consumption experience in developing a long-term exchange relationship between consumers and service providers.

Therefore, another future research direction is to replicate theoretical framework into a specific service context such as e-government service, hedonic service, or financial service to test the generalizability and extend the finding in this research.

In the increasingly global market, many practitioners are also faced with the challenge of offering usable and useful applications to the local users (Khaslavsky, 1998). Numerous factors may contribute to national differences including a country's tangible situation (e.g. infrastructure, economic situation, language) and cultural aspects (e.g. value, norm) (Ford *et al.*, 2003). 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). For example, customers from cultures with higher individualism or lower uncertainty avoidance show a propensity to switch, engage in negative word-of-mouth, or complain if they received poor service quality (Liu *et al.*, 2001). Therefore, in a future study, the author will investigate whether these country specific cultures moderate the role of service convenience and service consumption experience in relation to long term relational exchange in EME.

Finally, the theory development for the service in the EME must consider the dynamics of IT and evolution of consumer behavior in the EME. The temporal impact might significantly relate to the consumer's evaluation of the service in the EME during the long-term relationship development. Therefore, a longitudinal analysis may be

meaningful to enhance our knowledge of the interrelationship among service convenience, service consumption experience, and the relational exchange dimensions in the EME.

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APPENDIX A. INSTRUMENT (PAPER-BASED AND ONLINE VERSION)

A STUDY OF SERVICE CONSUMPTION, SERVICE CONVENIENCE, AND EXCHANGE RELATIONSHIP IN ELECTRONIC MEDIATED ENVIRONMENT

1. **Gender:** A. Male B. Female
2. **Age in years** (check one):
A. 18-25 B. 26-35 C. 36-45
D. 46-55 E. More than 55 years
- If you are **UNDER** 18 years of age, Please do **NOT** complete this survey.
3. **Currently, what is your highest level of education?** (Check one):
A. High School B. Some years of college C. Bachelors' degree
D. Master's E. Doctorate
4. **Please choose the option that best describes your current occupation status** (check one):
A. Full time Employee B. Part time Employee C. Self-employed
D. Full time College Student E. Retired/ Homemaker
5. **Please indicate your income level (Per month)** (check one):
A. Less than \$1,000 B. \$1,001 to \$3,000 C. \$3,001 to \$5,000
D. \$5,001 to \$8,000 E. More than \$8000
6. **Do you own an electronic device (PC, Laptop, Mobile Phone, PDA, etc)?**
A. Yes; B. No. If yes, your device(s) is/are _____

7. Please identify **ONE online service** you have used most frequently in the past six months and write down the **name of this online service provider**. For example, **music service with iTunes; online car insurance service; online banking or credit checking service** (email services and online search services are **NOT** included)

8. How long ago did you start using this service? (in Months)

—
9. **How often do you use this service?**
A. *Many times per day* B. *once a day* C. *2-3 times a week* D. *once a week* E. *once a month*
10. **On average, how many minutes do you spend on this particular online service?**
A. *Less than 10 minutes* B. *10-30 minutes* C. *30-60 minutes* D. *1-2 hours* E. *More than 2hours*

Based on your experience on using above specific service, circle your level of agreement with each statement using the following scale:

1 2 3 4 5

Strongly Disagree Disagree Neutral Agree Strongly Agree

	1 Strongly Disagree				5 Strongly Agree
11. This online service provider's website is visually pleasing	1	2	3	4	5
12. The lay-out of this online service provider's website is attractive	1	2	3	4	5
13. The colors that are used on this online service provider's website are attractive	1	2	3	4	5
14. Everything is clearly arranged in this online service provider's website	1	2	3	4	5
15. Overall, I find this online service provider's website to be attractive	1	2	3	4	5
16. I felt that I had the freedom to go anywhere in this online service provider's website	1	2	3	4	5
17. I felt interacting with this online service provider's website was easy	1	2	3	4	5
18. When I use this online service provider's website, there is very little waiting time between my actions and the computer's response	1	2	3	4	5
19. Pages on this online service provider's website that I visit usually load quickly	1	2	3	4	5
20. I feel creative when I use this online service provider's website	1	2	3	4	5
21. I feel playful when I use this online service provider's website	1	2	3	4	5
22. I feel unimaginative when I use this online service provider's website	1	2	3	4	5
23. I found that this online service provider's website motivates customers to feel participation	1	2	3	4	5
24. I found that this online service provider's website is fun	1	2	3	4	5
25. I found this online service provider's website is entertaining	1	2	3	4	5
26. This online service provider's website operates reliably	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
27. This online service provider's website performs reliably	1	2	3	4	5
28. The operation of this online service provider's website is dependable	1	2	3	4	5
29. This online service provider's website allows information to be readily accessible to me	1	2	3	4	5
30. This online service provider's website makes information very accessible	1	2	3	4	5
31. This online service provider's website makes information easy to access	1	2	3	4	5
32. This online service provider's website can be adapted to meet a variety of needs	1	2	3	4	5
33. This online service provider's website can flexibly adjust to new demands of conditions	1	2	3	4	5
34. This online service provider's website is versatile in addressing needs as they arise	1	2	3	4	5
35. It takes too long for this online service provider to respond to my request	1	2	3	4	5
36. This online service provider provides service in a timely fashion	1	2	3	4	5
37. This online service provider returns answer to my questions quickly	1	2	3	4	5
38. Generally, the service content offered on this online service provider's website to support me in performing my transactions is satisfactory	1	2	3	4	5
39. On the whole, the service content offered on this online service provider's website is highly effective in supporting me to perform my transactions	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
40. Generally, I am pleased with the service content offered on this online service provider's website to support me in performing transactions	1	2	3	4	5
41. The general technological mechanisms underlying various service functionalities of this online service provider's website are satisfactory	1	2	3	4	5
42. Generally, the service functionalities are delivered in a professional manner in this online service provider's website	1	2	3	4	5
43. Overall, the service functionalities are delivered efficiently via this online service provider's website	1	2	3	4	5
44. I could find the product/service I wish to buy from this online service provider very quickly	1	2	3	4	5
45. It was easy to identify the product/service I wish to buy from this online service provider	1	2	3	4	5
46. It is convenient to search on this online service provider's site	1	2	3	4	5
47. It took minimal time to get the information needed to choose this online service provider	1	2	3	4	5
48. Making up my mind about what I wanted to buy from this online service provider was easy	1	2	3	4	5
49. It was easy to get the information I needed to decide which online service provider to use	1	2	3	4	5
50. It was convenient to decide if I by service from this online service provider	1	2	3	4	5
51. It was easy to contact the online service provider	1	2	3	4	5
52. It did not take much time to reach the online service provider	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
53. I was able to get to the online service provider's site quickly	1	2	3	4	5
54. It was convenient to access this online service provider's site	1	2	3	4	5
55. I did not have to make much of an effort to pay for the service	1	2	3	4	5
56. This online service provider made it easy for me to conclude my purchase	1	2	3	4	5
57. It was convenient to transact with this online service provider	1	2	3	4	5
58. I was able to complete my purchase quickly	1	2	3	4	5
59. I was able to get the benefits of the service with minimal effort	1	2	3	4	5
60. This online service was easy to use	1	2	3	4	5
61. The time required to receive the benefits of the service was appropriate	1	2	3	4	5
62. This online service provider resolved my problem quickly	1	2	3	4	5
63. It took little effort to arrange follow-up service	1	2	3	4	5
64. This online service provider made it easy for me to resolve my problem	1	2	3	4	5
65. Using this online service is exciting	1	2	3	4	5
66. The process of using this online service was pleasant	1	2	3	4	5
67. This online service makes me happy	1	2	3	4	5
68. I have fun in using this service	1	2	3	4	5
69. I found using this online service to be enjoyable	1	2	3	4	5
70. If I heard about a new technology, I would look for ways to experiment with it	1	2	3	4	5
71. In general, I am hesitant to try out new technologies	1	2	3	4	5
72. I like to experiment with new technologies	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
73. I forget about my immediate surroundings when I use this online service	1	2	3	4	5
74. Using this online service often makes me forget where I am	1	2	3	4	5
75. After using online this service, I feel like I come back to the “real world”	1	2	3	4	5
76. When I use this online service, I feel I am in a world created by the Online service provider’s site I visited	1	2	3	4	5
77. When I use this online service, my body is in the room, but my mind is inside the world created by the websites visit	1	2	3	4	5
78. When I use this online service, the world generated by the sites I visit is more real for me than the “real world”	1	2	3	4	5
79. This online service provider provide picture that allow me to view a product/service from multiple angles (i.e. front view, side view, rear view)	1	2	3	4	5
80. This online service provider makes it possible for me to contact someone who has already bought/used this product/service to obtain a testimonial	1	2	3	4	5
81. This online service provider has the website that makes you feel like you are part of community	1	2	3	4	5
82. This online service provider provides online chat function for potential customer-salesperson interaction	1	2	3	4	5
83. I actively search for information from this online service provider	1	2	3	4	5
84. I actively purchase the service from this online service provider	1	2	3	4	5
85. I go to this online service provider’s website directly to search for	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
information					
86. I go to this online service provider's website directly to purchase service	1	2	3	4	5
87. The prices I pay for service from this online service provider represent a very good deal	1	2	3	4	5
88. The time I spend in order to use this service from this online service provider's site is highly reasonable	1	2	3	4	5
89. The effort involved in using this service at this online service provider's site is worthwhile	1	2	3	4	5
90. The service consumption experience at this online service provider's site is excellent	1	2	3	4	5
91. I found significant value by using service from this provider	1	2	3	4	5
92. Overall, I am satisfied with this online service provider	1	2	3	4	5
93. I did the right thing when I decided to use this online service provider	1	2	3	4	5
94. I regret doing business with this online service provider	1	2	3	4	5
95. My relationship to this specific online service provider is something that I am very committed to	1	2	3	4	5
96. My relationship to this specific online service provider is very important to me	1	2	3	4	5
97. My relationship to this specific online service provider is something I really care about	1	2	3	4	5
98. My relationship to this specific online service provider deserves my maximum effort to maintain	1	2	3	4	5
99. I am concerned with financial cost of switching to another online	1	2	3	4	5

	1 Strongly Disagree				5 Strongly Agree
service provider					
100. I am concerned about possible problems caused by moving to another online service provider	1	2	3	4	5
101. Current online service provider is convenient	1	2	3	4	5
102. There is benefit of staying with current online service provider	1	2	3	4	5
103. I am likely to switch to another vendor in the near future	1	2	3	4	5
104. I will choose this online service provider next time when I purchase same service	1	2	3	4	5
105. I often recommend this online service provider to others	1	2	3	4	5
106. I tell my friends about this online service provider	1	2	3	4	5
107. I want my friends to buy from this online service provider	1	2	3	4	5
108. This online service providers' website is useful for searching and buying service	1	2	3	4	5
109. This online service providers' website improves my performance in searching and buying a service	1	2	3	4	5
110. This online service providers' website enables me to search and buy a service faster	1	2	3	4	5
111. This online service providers' website enhances my effectiveness in searching and buying a service	1	2	3	4	5
112. This online service providers' website makes it easier to search for and purchase a service	1	2	3	4	5
113. This online service providers' website increases my productivity in searching and purchasing a service	1	2	3	4	5

	1 Strongly Disagree	2	3	4	5 Strongly Agree
114. This online service providers' website is easy to use	1	2	3	4	5
115. It is easy to become skillful at using this online service providers' website	1	2	3	4	5
116. Learning to operate this online service providers' website is easy	1	2	3	4	5
117. This online service providers' website is flexible to interact with	1	2	3	4	5
118. My interaction with this online service providers' website is clear and understandable	1	2	3	4	5
119. It is easy to interact with this online service providers' website	1	2	3	4	5
120. This online service provider has the expertise to understand my needs and preferences	1	2	3	4	5
121. This online service provider has the good knowledge about the service/product I bought from this website	1	2	3	4	5
122. This online service provider considers my needs and all important attributes about the service/product I bought from this website	1	2	3	4	5
123. I feel that this online service provider puts my interest first	1	2	3	4	5
124. I feel that this online service provider is benevolent	1	2	3	4	5
125. This online service provider wants to understand my need and preference	1	2	3	4	5
126. This online service provider provides unbiased service/product recommendations	1	2	3	4	5
127. This online service provider is honest	1	2	3	4	5
128. I consider this online service provider to be of integrity	1	2	3	4	5
129. In general, it would be risky to give my personal information to online	1	2	3	4	5

	1 Strongly Disagree				5 Strongly Agree
companies					
130. There would be high potential for loss associated with giving my personal information to online firms	1	2	3	4	5
131. There would be too much uncertainty associated with giving my personal information to online companies	1	2	3	4	5
132. Providing online firms with my personal information would involve many unexpected problems	1	2	3	4	5

APPENDIX B. IRB APPROVAL

Approval of IRB protocol 078331



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO

Office of Research Compliance

2715 Beverly Cooper Moore and Irene Mitchell, Neters
Humanities and Research Administration Building
PO Box 26179, Greensboro, NC 27402-6179
336.256.1482 /fax 336.256.1482 /toll
www.uncg.edu/orc/

April 2, 2008

Dr. A.F. Salam
Information Systems and Operations Management
438 Bryan Building
Refer to: IRB No.078331

Dear Dr. Salam,

As required by University policy a member of the UNCG IRB has given your research protocol entitled "Service Consumption, Service Convenience and Relational Exchange in Electronic Mediated Environment" (IRB No. 078331) an exempt review as permitted under UNCG's Federal Wide Assurance (FWA 00000216). Your minimal risk protocol has been deemed exempt under section B2 of 45 CFR 46.101.

You should be aware that any changes in your protocol must be approved by the IRB prior to being implemented. Likewise, any problems, complaints or injuries that arise during the course of your project which involves human participants must be reported promptly to the Office of Research Compliance. The approved informed consent form is attached. This version must be used when obtaining informed consent as outlined in this protocol but the stamp does not need to appear on the form.

This research protocol is valid for five years unless changes are made which remove the exempt status. You will receive a continuing review form prior to the fifth anniversary to keep this protocol active. Conversely you are responsible for notifying the ORC when your study is completed and all work is published. Thank you for your cooperation on this matter and best wishes on your project.

Sincerely,


Eric Allen, Director
Office of Research Compliance
Cc:

Approval for Modified IRB protocol 078331

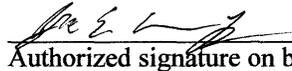


THE UNIVERSITY OF NORTH CAROLINA
GREENSBORO

OFFICE OF RESEARCH COMPLIANCE
2718 Beverly Cooper Moore and Irene Mitchell Moore
Humanities and Research Administration Bldg.
PO Box 26170
Greensboro, NC 27402-6170
336.256.1482
Web site: www.uncg.edu/orc
Federalwide Assurance (FWA) #216

To: Al Farooq Salam
Information Systems & Oper Mgt
438 Bryan

From: UNCG IRB IRB


Authorized signature on behalf of IRB

Approval Date: 11/25/2008
Expiration Date of Approval: 4/01/2013

RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
Submission Type: Modification
Expedited Category: Minor Change to Previously Reviewed Research
Study #: 07-0331 (Former IRB Number 078331)

Study Title: Service Consumption, Service Convenience and Relational Exchange in Electronic Mediated Environment

This submission has been approved by the above IRB for the period indicated. It has been determined that the risk involved in this modification is no more than minimal.

Submission Description:

Increase number of participants by 200.

Investigator's Responsibilities

When applicable, enclosed are stamped copies of approved consent documents and other recruitment materials. You must copy the stamped consent forms for use with subjects unless you have approval to do otherwise.

CC: Hua Dai, Information Systems & Oper Mgt

APPENDIX C. CONSENT FORM

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT IN A SURVEY-BASED STUDY

Project Title: Service Consumption, Service Convenience and Relational Exchange in Electronic Mediated Environment

Project Director: Dr. A. F. Salam and Hua Dai

Please take a moment to carefully review this consent form in its entirety. Remember that participation in this study is entirely voluntary and you may choose not to participate or to withdraw at any time. Please note that **you must be at least 18 years of age** to participate in this study. If you are under the age of 18, you are asked not to participate.

DESCRIPTION AND EXPLANATION OF PURPOSE AND PROCEDURES:

The University of North Carolina at Greensboro Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. You may direct questions regarding the research itself to A.F. Salam at (336) 334-4991 or Hua Dai at (336) 256-0192. A.F. Salam or Hua Dai may also be located via the Information Systems and Operations Management Department on the fourth floor of the Bryan Building on the University of North Carolina at Greensboro campus by calling (336) 334-5666.

This survey is conducted as part of a research study by Hua Dai and Dr. A.F. Salam in the ISOM Department at The University of North Carolina at Greensboro. The purpose of this research is to learn more about consumers, who are at least 18 years of age, and their experiences with services in electronic mediated environment. It will take about 20 minutes to complete the survey. This study contributes the research on the service convenience and service consumption experience by identifying its dimensions, antecedents and consequence in the electronic mediated environment. With providing the insights and importance of service convenience and service consumption experience as well as their antecedents and influences, this study also contributes to the practitioners to broaden their focus on designing and delivering the convenience and experience attributes of the service in order to develop a long-term mutual exchange relationship with their consumers.

This survey does not identify you through any personal identification and only collects data about you as it pertains to demographic information. Your answers will be kept strictly confidential and

APPENDIX D. PROJECT DESCRIPTION SUBMITTED TO IRB, UNCG

Research Questions:

1. *What is service convenience and what are its determinants in electronic mediated environment?*
2. *What is service consumption experience and what are its determinants in electronic mediated environment?*
3. *How does service convenience and service consumption experience help the service providers develop long-term exchange relationship with their customers in electronic mediated environment?*

The fast advancement and the large expansion of the IT in business functions and the high dependence of IT in the service delivery system add more complexity in service innovation to meet consumers' demand. Although the service innovation facilitated by IT tools provides the companies with a more efficient and effective way to purvey and deliver their services, it is the consumers who receive and consume the services and ultimately have the final say. Consumers spend time and efforts to buy and use services. These consumer experiences related to the time and efforts they spent in buying and consuming services are defined as service convenience. The service convenience is an important consideration of most consumers when they are making purchase decisions. At meantime, such service convenience is inevitably engaged in business relationships during the service consumption and service evaluation. However, there is relatively no research in prior literature provided an analytical framework addresses the comprehensive view of service convenience, service consumption experience and their antecedents and consequences in the electronic mediated environment leading to long-term exchange relationship. Given this gap in knowledge of service convenience, service consumption experiences, and exchange relationship in electronic mediated environment, we propose above research questions in this study. This study integrates previous research from marketing, consumer behaviors, service science, computer science, and Information Systems fields. It contributes the research on the service convenience by identifying its dimensions, antecedents and consequence in the electronic mediated environment. With providing the insights and importance of service convenience, this study also contributes to the practitioners to broaden their focus on designing and delivering the convenience attributes of the service in order to develop a long-term mutual exchange relationship with their consumers.

Based upon the details of this study, we believe the proposed study should fall under exempt category B2. The data will be gathered from students in UNCG with a survey. Participants will be randomly selected from the both undergraduate and graduate students in UNCG. No advertisements will be used. We will ask various instructors for permission to distribute the survey in their class. The survey instrument is attached with this project summary. This survey does not identify respondent through any personal identification. The data will be kept strictly confidential and will not be released in any form that can be identified individually. Participation in the study should provide minimal to no level of risk to the individual participants

Results of the survey may be published in aggregate form only, without identifying any individual. Data will be kept until the results are disseminated in aggregate form. The estimated time is 4 years from the time data collection is complete. Paper copies will be in lockable file cabinets and data files in a password protected computer. Both of these will be in Hua Dai's lockable office at 428 Bryan School on UNCG campus. Paper copies will be shredded after the study is complete and data files will be deleted from the computer used to store and analyze data.

Please find attached consent document which will be given to the participants in advance of the survey. Their signature on the consent document will constitute their willingness to participate in the study. The participants are free to refuse to participate or to withdraw their consent to participate in this research at any time without penalty or prejudice. A copy of the consent document will be provided to the participants to keep for their records.