



Customer Satisfaction Factors for an Internet Service Provider

By

Ms. Pornthip Tovira

A Final Report of the Three - Credit Course
CE 6998 Project

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer and Engineering Management
Assumption University

November 1999

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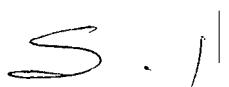
The Graduate School of Assumption University has approved this final report of the three-credit course, CE 6998 PROJECT, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer and Engineering Management.

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November 1999

ABSTRACT

This project primarily focuses on the customer satisfaction factors for Thailand Internet Service Providers, then this study investigated the theoretical framework conceptualized in parts by Singh (1991), Parasuraman, Zeithaml and Berry (1994) and Teas (1993) in that a customer's overall satisfaction is a function of an individual's cognitive evaluation or assessment of a wide range of variables or satisfaction measures of a product/service transaction. This study focused on the scope of those variables, the three major components of satisfaction suggested by a review of the current consumer satisfaction literature—cost/price, convenience/location and product/service. In addition, this study has taken into account the influence of various socioeconomic and demographic variables as covariates of the individual's assessment of the satisfaction components of cost/price, convenience/location and product/service quality. Therefore, this model postulates that a customer's overall satisfaction with a product/service transaction is a function of his or her individual assessment of the variables of cost/price, convenience/location, product/service and various socioeconomic and demographic variables. The survey is used as a research tool with 100 sampling population who are middle to senior level people from various areas in Bangkok. And using the Statistical Package for Social Sciences (SPSS) software program in evaluating the result in terms of percentage does the data analysis. Most of the sampling population is a member of the Internet Service Providers (ISP) in Thailand. This sampling population completed a survey designed to measure responses to a wide range of customer satisfaction variables based upon their most recent Internet product/service experience with Internet Service Providers.

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I. INTRODUCTION

Organizations throughout the world are beginning to recognize that measuring customer satisfaction is no longer an option but an essential part of their management systems— perhaps on a par with strategic planning or even accounting. This is especially true for companies operating in competitive markets where customers have numerous options should they become dissatisfied. (Crosby 1993) Management needs to focus attention, according to Bitner (1990), on the controllable elements at the point of interaction between the firm and its customers that may influence customer evaluations, and ultimately affect perceptions of service quality and repeat purchase behavior. Therefore, knowledge of the variable that influences customer evaluations in product/service encounters is critical, particularly at a time when general perceptions of service quality are declining.

1.1 Statement of the Problem

There are several variables that contribute to a customer's perception, memory and judgment of satisfactory product/service received experience, and, by extension, to the overall level of consumer satisfaction as well. A review of the literature suggests that three of the major determinants of customer satisfaction relate to the attributes of cost/price, convenience/location, and product/service quality. However, the influence of various socio-economic and demographic variables as covariates of the attributes of cost/price, convenience/location, and product/service quality has not been studied. This is despite the fact that there may be socio-economic and demographic variables that reflect a positive relationship between a customer's satisfaction with a product/service transaction and the three major determinants of satisfaction suggested by the literature.

1.2 Research Objective

The purpose of this study is to demonstrate the correlation relationship between the explanatory variables of a product/service received and customer satisfaction — while taking into account pertinent socio—economic and demographic factors as covariates of the variables that are suggested by a review of the literature to be determinants of customer satisfaction.

More specially, the object of this research is three-fold. First, it is the goal of this research project to present a review of literature intended to discuss recent theories and factors associated with customer satisfaction in general.

Second, by examining several major hypotheses from the literature, this research aims to investigate the relationship between the current level of the overall consumer and the determinants of satisfaction with the variables of a product/service received. This was done by directly surveying from personal interviews, the sample size of the Internet user respondents. Our study is limited only to those who use the Internet and are the Internet Service Provider's member. The survey was conducted from September 26 to October 2, 1999.

Third, this research then aims to expand the examination of the relationship between the stated current level of the overall consumer satisfaction and the determinants of satisfaction of the product/service received by the members of the Internet Service Providers by studying the three major determinants of customers satisfaction of cost/price, convenience/location, and product/service quality in relationship with various socio- economic and demographic variables as covariates of the variables of cost/price, convenience/location, and product/ service quality.

1.3 Importance of the Study

By studying the variables that correlate with overall customer satisfaction, the researcher hopes that the finding of this study will enable organizations to focus on achieving a higher level of consumer satisfaction. It makes good managerial sense to emphasize customer satisfaction for the following three reasons:

- (a) Satisfied customers are more likely to recommend the organization to others, which is the cheapest and most effective form of promotion.
- (b) Satisfied customers are loyal customers. It is estimated to be five to seven times more expensive to attract a new customer than to keep an old one.
- (c) Satisfied customers are better customers. They buy more, more often and are willing to pay higher prices.

1.4 Scope of the Study

This study of customer satisfaction is limited to an Internet Environment, and more specially, it is limited to the member of a Thailand Internet Service Provider in Bangkok.

II. LITERATURE REVIEW

This chapter presents a brief history of the Internet in Thailand, a definition of the Internet Service Provider (ISP), a definition and a review of the literature of customer satisfaction.

2.1 A Brief History of the Internet in Thailand

Some Thai students and visitors to the United States of America had been given Internet addresses but when they returned to Thailand, not many continued to use their addresses because of the high cost of international telephone connection. In 1987, the Asian Institute of Technology (AIT) in Thailand entered into an agreement with the Department of Computer Science at the University of Melbourne in Australia to operate the Internet email service on a regular basis. The Australian node would call AIT three times a day to send and collect mail.

AIT charged 200 Bahts per month for up to 15,000 characters transferred (counting both in and out messages combined) plus one Bahts for every additional 50 characters. One of the problems was the inability to control incoming mail, especially the lengthy calls for papers, list of reference, etc. which was not asked for, and had to be paid for because they had automatically entered the mailbox. This problem was later solved when the rate was changed to a fixed amount per month rather than varying with the number of characters. Another problem was that during the connection to Australia, usually three times a day at 02:30, 15:30 and 19:30, users were requested not to call the only dial-in number with the only modem available at that time.

In 1988, Prince of Songkhla University in the southern part of Thailand established an Internet node connected to Melbourne University a few times a day. Two

dial-in telephone numbers were made available from 09:00 in the morning till 19:00 in the evening.

In 1991, Digital Equipment (Thailand) Ltd. acquired an Internet address for internal and research-related usage. No dial-in number was made available and the user had to use the machine at the company.

A major breakthrough occurred in 1991 when Chulalongkorn University became the Internet gateway in Thailand. After sufficient testing, full operation was started in July 1992 with a 9600 baud leased line to Virginia, U.S.A. and later upgraded to 64 K line. The fees for the leased line with 25% educational discount from the Communications Authority of Thailand (CAT) were about 5.2 million bahts per year (about US\$ 468,000). Initially only one telephone line was made available but by 1993 twenty lines were accessible. The all day, all night and full Internet service at Chulalongkorn University were obviously much better than the email-only at AIT. Instead of waiting a day or so for the message to be routed through Australia, one could communicate as many times a day as necessary and desirable. One could use the "talk" command to enter into interactive communication. When calls for papers were received from the network, one could ask for and obtain clarification right way.

In January 1992, the National Electronics and Computer Technology Center (NECTEC) established the NECTEC E-mail Work Group (NWG). In February 1992, NWG established a network named ThaiSarn (Thai Social/scientific, Academic and Research Network) with a machine donated by IBM, two dial-in telephone lines available 24 hours a day for NWG connections. UUCP (UNIX-UNIX Copy) was made hourly with Thammasat University and Prince of Songkhla University, and international connection with Australia through AIT three times a day. The service was later upgraded to include six dial-in telephone lines and 24 hours per day international

connection through Chulalongkorn University. Then in September 1993, NECTEC became the second gateway from Thailand and it was connected to Virginia, U.S.A. by a 64 K leased line.

In January 1992, Thammasat University (TU) Information Processing Institute for Education and Development (IPIED) also registered as an Internet node. One dial-in telephone number was made available 24 hours a day.

The Faculty of Engineering at King Mongkut's Institute of Technology Ladkrabang started experimenting with the Internet in mid 1992 connected to Thammasat. At t1K beginning, only about 40 users were approved. Later the Computer Research and Service Center which serves all the faculties established a central node for Ladkrabang. By October 1993, about 500 Internet addresses had been given.

Digital Equipment (Thailand) joined ThaiSarn in January 1992 but was later disconnected because a commercial organization was not allowed to use the educational Internet in Thailand. Prince of Songkla University and AIT joined ThaiSarn in 1992 but AIT later installed a direct leased line to Chulalongkorn University.

2.2 What is an Internet Service Provider?

The Internet• is a communication technology and is a wildly-successful, rapidly growing, global digital library built on a remarkably flexible communication technology. Furthermore, the services have been integrated and cross-referenced, then a user can move seamlessly from the information on one computer to information on another computer and from one access service to another. There are 5 important things that people need before getting into the Internet;

Internet Connectivity Activities in Thailand (October 1999)

<http://www.nectec.or.th/internet/rnapi>

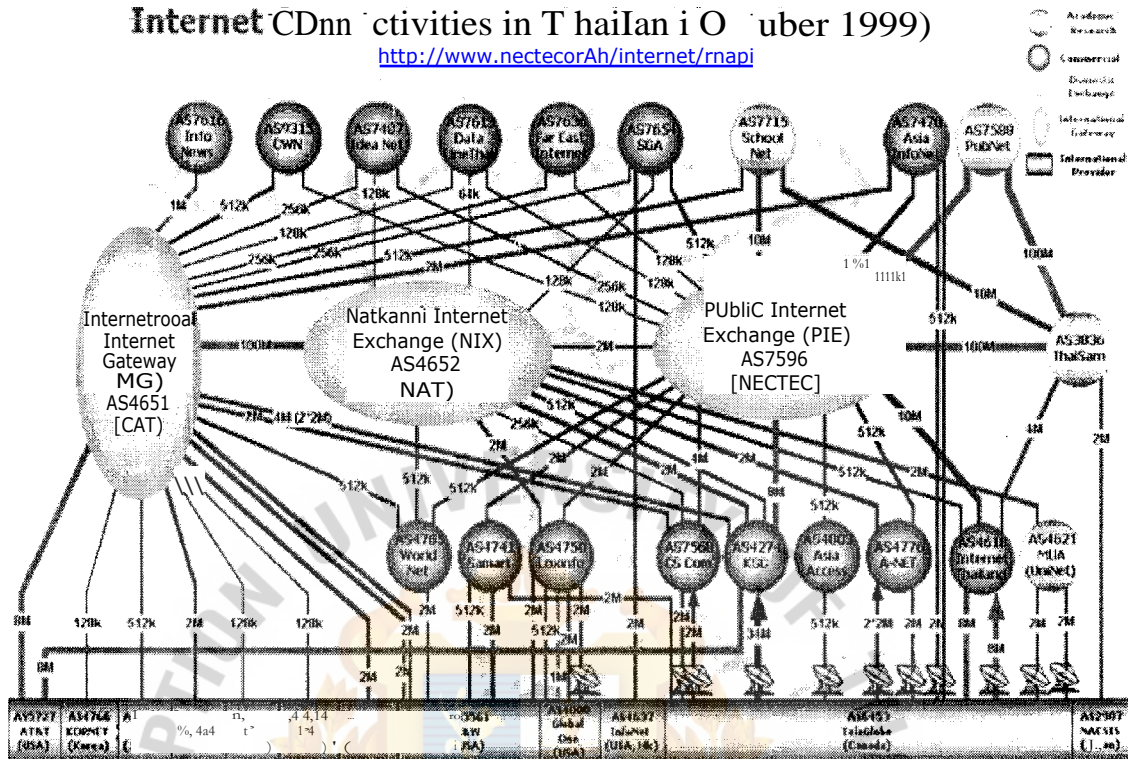


Figure 2.1. Map of Internet Connectivity in Thailand.

- Computer:** A user should have a computer that can work with Windows. It can be either a desktop or a notebook. Normally we recommend that the computer should be at least Pentium 75 MHz, with 850 MB hard drive, and 16MB of RAM.
- Telephone line:** A telephone line is essential in order to get onto the Internet. While users are on the Internet, nobody can call them.
- Modem :** A device connects the computer to a telephone line which in turn, connects to another modem on a remote computer.
- Internet Service Provider (ISP):** A company that provides people access to

the Internet and E-mail. ISP companies usually charge a fee for this service in addition to connection time charges.

- (d) Software: Normally, ISP provides the user with software that is required for a dial-up Internet connection.

The first step to access the Internet is finding a connection and the most common way to access the Internet from home is with a modem and a phone call to an Internet Service Provider (ISP). Your computer connects via modem to the ISP, which in turn is connected to the Internet with a high-speed link.



Figure 2.2. Steps to Connecting the Internet.

The most important issue when choosing an ISP is to find one with a local phone number for you to dial. Otherwise the phone calls may cost you more than the ISP itself. Most ISPs have several access numbers, or points-of-presence (POPs) as they are often called.

(a) Pricing

Internet Service Providers typically offer several pricing plans for dial-up service:

(1) Monthly accounts

These accounts are designed for users who expect to access the Internet only a few hours per month. A small monthly fee typically includes 15-20 hours of connection time. Usage hours should be used by the end of each billing cycle month and cannot be carried over.

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Additional hours will be charged accordingly and are billed at approximately 20 to 40 Bahts per hour.

(2) Package accounts (or Debit hours service)

These accounts allow the users to start off with the predefined number of hours and buy an additional 50, 100 or 200 hours later on. The price of package costs around 400-1,200 Bahts. The usage hours will be debited and accumulated according to member usage and purchase of additional hours. Otherwise, the user can keep their selected usage hours as long as they need.

(b) Features

Most dial-up accounts provide more than a simple connection from your computer to the Internet. They typically also include such services as:

- (1) E-mail account for the user to send and receive electronic mail.
- (2) All the software needed to connect and communicate on the Internet.
- (3) A personal Web page
- (4) 2 MB of disk space for storing the user's e-mail message and personal web page.
- (5) Fast dial-up connection, which supports speeds up to 56 Kbps.
- (6) Technical help desk support.

These additional services are provided on the ISP's computers, since they need to be available even when your computer is not connected to the Internet. Dial-up accounts may also include specific features such as Unix shell account.

(c) E-mail

Incoming e-mail is received by the user ISP and stored in a mailbox for the user on a computer known as a POP server. When the users next connect to their ISP and run e-mail program, the message is downloaded to a mailbox on their computer. At this point, the message is automatically removed from the ISP's POP server since it is now stored on the computer's hard drive until the users delete it in their e-mail program. The Internet Service Provider will provide the member with the address of their POP server, which the user will need to enter into their e-mail program.



Figure 2.3. Steps to Receiving an E-mail.

Outgoing e-mail is essentially the same process in reverse. When the user sends a message from their e-mail program it is uploaded right away to the ISP. It is temporarily stored in an outgoing mailbox on a computer known as a Simple Mail Transfer Protocol (SMTP) server. Usually the message can be delivered right away, but if there is a problem delivering the message, it will be stored on the SMTP server until it can be delivered later. The user does not need to stay dialed-in to assure delivery.



Figure 2.4. Steps to Sending an E-mail.

Each ISP will also provide the member with the address of their SMTP servers. In some cases, it may be the same address used for the POP server.

Table 2.1. Internet Service Providers in Bangkok.

COMPANY	URL
A-Net Co.,Ltd.	www.a-net.net.th
Asia Access Co.,Ltd.	www.asiaaccess.net.th
Asia Infonet Co.,Ltd.	www.asianet.co.th
Info Access Co.,Ltd.	www.infonews.co.th
Internet Thailand Co.,Ltd.	www.inet.co.th
KSC Commercial Internet Co.,Ltd.	www.ksc.net.th
Thaionline Commercial Co.,Ltd.	www.thaionline.com
Loxley Information Service Co.,Ltd.	www.loxinfo.co.th
Samart Cybernet Co.,Ltd.	www.samart.co.th
Siam Global Access Co.,Ltd.	www.sga.net.th
Idea Net Co.,Ltd.	www.idn.co.th
Worldnet & Service Co.,Ltd.	www.wnet.net.th
Data Line Thai Co.,Ltd.	www.linethai.net.th
CS Communications Co.,Ltd.	www.cscoms.com
Siam IT Online Co.,Ltd.	www.siamit.co.th

Table 2.2. Internet Service Providers in Other Provinces.

COMPANY	PROVINCE	URL
Internet ISP Co.,Ltd.	Chiangmai	www.iisp.inet.co.th
Internet KSC Chiangmai Branch	Chiangmai	www.cm.ksc.co.th
Sothorn Information System Co.,Ltd.	Chachoengsao	www.sothorn.co.th
Internet KSC Chiangrai Branch	Chiangrai	www.cernet.co.th
Chiangmai Internet Co.,Ltd.	Chiangmai	www.chiangmai.a-net.net.th
Lampun Internet Co.,Ltd.	Lampun	www.lamphun.net
Nakornrajsima Internet Co.,Ltd.	Nakornrajsima	www.korat.a-net.net.th
North Eastern Polytechnic Internet	Ubonratchatani	www.nepnet.co.th
Ubonratchathani Internet Co.Ltd.	Ubonratchathani	www.ubon.a-net.net.th
KhonKaen Internet Co.,Ltd.	KhonKaen	www.khonkaen.a-net.net.th
Icon Internet Connection Co., Ltd.	KhonKaen	www.icon.co.th
Lopburi Internet Co.,Ltd.	Lopburi	www.lopburi.a-net.net.th
Singburi Internet Co.,Ltd.	Singburi	www.singburi.a-net.net.th
Chonburi Internet Co.,Ltd.	Chonburi	www.chon.a-net.net.th
Internet KSC Chonburi Branch	Chonburi	www.chonburi.ksc.co.th
Yapapan Engineer Co., Ltd.	Ayutthaya	www.ayty.ksc.co.th
P.T. OA Center Co., Ltd.	Buriram	www.br.ksc.co.th
Internet East Co.,Ltd.	Chonburi	www.ine.inet.co.th
Chachoengsao Internet Co.,Ltd.	Chachoengsao	www.sothorn.a-net.net.th
Nakornpathom Internet Co.,Ltd.	Nakornpathom	www.np.a-net.net.th
Nakhonsithammarat Internet Co.,Ltd.	Nakhonsithammarat	www.nst.a-net.net.th

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Table 2.2. Internet Service Providers in Other Provinces. (Continued)

COMPANY	PROVINCE	URL
Prachuabkhirikhan Internet Co.,Ltd.	Prachuabkhirikhan	www.prachuab.a-net.net.th
Phuket Internet Co', Ltd.	Phuket	www.phuket.a-net.net.th
Surin Internet Co.,Ltd.	Surin	www.surin.a-net.net.th
Saraburi Internet Co.,Ltd.	Saraburi	www.saraburi.a-net.net.th
Udonthani Internet Co.,Ltd.	Udonthani	www.udon.a-net.net.th
Burirum Internet Co.,Ltd.	Burirum	www.burirum.a-net.net.th
Yasothorn Internet Co., Ltd.	Yasothon	www.yaso.a-net.net.th
Srisakes Internt Co.,Ltd.	Srisakes	www.ssk.net
Roi-ed Interet Co.,Ltd.	Roi-ed	www.roi-ed.a-net.net.th
Phetchabun Internet Co.,Ltd.	Phetchabun	www.phetchabun.a-net.net.th
Angthong Internet Co.,Ltd.	Angthong	www.angthong.a-net.net.th
Chantaburi Internet Co.,Ltd.	Chantaburi	www.chan.a-net.net.th
Ratchaburi Internet Co.,Ltd.	Ratchaburi	www.ratchaburi.a-net.net.th
Kanjanaburi Internet Co.,Ltd.	Kanjanaburi	www.kan.a-net.net.th
Phetchaburi Internet Co.,Ltd.	Phetchaburi	www.phetchburi.a-net.net.th
Ranong Internet Co.,Ltd.	Ranong	www.ranong.a-net.net.th
Internet Advance Co.,Ltd.	Chachoengsao	www.chchsao.ksc.co.th
M.C.C. Leasing Co., Ltd.	Chantaburi	http://east.ksc.co.th
World Net News Co., Ltd.	Khonkaen	www.kk.ksc.co.th
Tech Center Partnership Ltd.	Lampang	www.lp.ksc.co.th
Betternet Co., Ltd.	Nakhon Ratchasima	www.kr.ksc.co.th

Table 2.2. Internet Service Providers in Other Provinces. (Continued)

COMPANY	PROVINCE	URL
Chanvittayaphun OA Center Co., Ltd.	Chiangrai	www.cr.ksc.co.th
OA Network Center 1999 Co.,Ltd	Nakhonsawan	www.nksw.ksc.co.th
Vision Internet Co., Ltd.	Nakhonsrithammarat	www.nksrat.ksc.co.th
Internet Teekacharoen Co., Ltd.	Nongkhai	http://nk.ksc.co.th
Nac Network Co.,Ltd.	Pattanee	www.pn.ksc.co.th
Chanvithayaphan OA Center Co.,Ltd.	Phayao	www.py.ksc.co.th
Integrated Network Co., Ltd.	Phitsanulok	www.pnl.ksc.co.th
Autchariya Technic Computer Co., Ltd.	Phrae	www.phrae.ksc.co.th
Express Data Co., Ltd.	Phuket	www.phuket.ksc.co.th
East Internet KSC Co., Ltd.	Rayong	http://rayong.ksc.co.th
Cornpnet Center Co., Ltd.	Saraburi	www.srb.ksc.co.th
Ken Inter OA Group Co., Ltd.	Songkhla	www.hy.ksc.co.th
Srimilin C & C Co., Ltd.	Surat Thanee	www.surat.ksc.co.th
Trad Internet Partnership	Trad	www.tr.ksc.co.th
Internet Teekacharoen Co., Ltd.	Udon Thani	http://udon.ksc.co.th
OA Network Center Co., Ltd.	Uthai Thanee	www.uthai.ksc.co.th
SV Service & OA Co., Ltd.	Uttaradit	www.utd.ksc.co.th
Leadder Computerto., Ltd.	Prachinburi	www.prachin.ksc.co.th
Asia Internet Solution Co., Ltd.	Ubol Ratchatantee	www.ubon.ksc.co.th
OA Network Center Co., Ltd.	Uthai Thanee	www.uthai.ksc.co.th
SV Service & OA Co., Ltd.	Uttaradit	www.utd.ksc.co.th

Table 2.2. Internet Service Providers in Other Provinces. (Continued)

COMPANY	PROVINCE	URL
Kaow-Na Internet Co., Ltd.	Karnchanaburi	www.kanchbr.ksc.co.th
Sweep (1997) Co., Ltd.	Nakhonpathom	www.nkp.ksc.co.th
Technology Phone Co.,Ltd.	Phetchabun	www.phchbun.ksc.co.th

2.3 Customer Satisfaction

The definition of Customer Satisfaction is complex. Locke (1969) defines as "a pleasurable or positive emotional state resulting from the appraisal of one's job and as a function of the perceived relationship between what one wants from one's job and what one perceives it as offerings or entailing". Breakdown of the key words in this definition can be categorized into (a) emotion, (b) appraisal, (c) expectation and (d) perception which fort is the „customers satisfaction process. Based on this definition, various modern theoretical frameworks evolve from the satisfaction and dissatisfaction influencing factors that nature into the objectives of modern business philosophies.

Parasuraman (1988 and 1990) states the key premise to customer satisfaction is the prerequisite understanding of customer satisfaction and delivering of superior service as the customer compares perceptions with expectations when judging a firm's service. One of the key influences of the customer's expectations is price and they believe that the more the pay, the better the service should be. Nonetheless, low price with high quality adds on to her satisfactions if the customers perceive the value of the products/services to be higher than what they pay. This premise however depends on the communication, image of the firm, flow of information to the customers and the delivery of the promise the firm made to the market.

Oliver defined customer satisfaction in the disconfirmation paradigm using two other cognitive variables being pre-purchase expectation and disconfirmation. Pre-purchase expectations are beliefs about anticipated performance of the product/service while disconfirmation is the difference between the pre-purchase expectations and the perceptions of post-purchase. Satisfaction may best be understood as an evaluation of the surprise inherent in a product acquisition and/or consumption experience.

The model on cognitive antecedents and consequence of customer satisfaction developed by Oliver is exemplified in the following diagram:

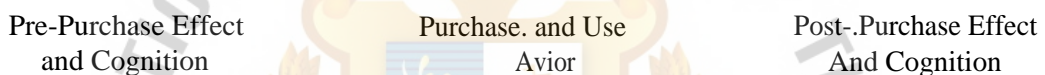


Figure 2.5. Cognitive Antecedents and Consequence of Satisfaction.
(Source: Journal of Marketing Research 17 Nov 1980, p.482)

Based on Oliver's "Cognitive Antecedents and Consequences of Satisfaction Model", the inter-related behavior and cognitive variables are the function of the following areas:

- (1) **Post Purchase Effect and Cognition** is function of pre-purchase expectations, pre-purchase attitudes and pre-intentions.
- (2) **Purchase and Use Behavior** is function of product performance or experiences from using the service/product.
- (3) **Post Purchase Effect and Cognition** is function of positive disconfirmation/confirmation negative, satisfaction/dissatisfaction, post-purchase attitude and post-purchase intention.

Kotler, (1994): Obviously, customers will be satisfied if they get what they want, when, where they want and how they want. This does not mean that a service provider will be able to meet the customer's wishes. The service provider faces a trade-off between customer satisfaction and company profitability. The service as the intangible product is a tool which can satisfy the customer's needs. Then, it can be simply concluded that the service and satisfaction are highly correlated. It is not only the service alone, but quality. Service quality is the key to satisfy the customer's needs.

From the above widely used definitions, it can be implied that the outcome of "perceived value-experience" comparison process is the key premise in judging customer satisfaction, which will also be measured in this study. This comparison process is therefore related to the intertwined relationship between service/product quality and customer satisfaction.

2.4 Past Studies of Customer Satisfaction

A literature review for this study does not suggest that, in general, there are three variables that have a strong correlation with customer satisfaction. The review of past research below is presented under the headings of those three components.

(a) Past Research on Cost/Price

Lichtenstein, Ridgway, and Netemeyer (1993) studied seven price-related constructs—five consistent with a perception of price in its "negative role" and two consistent with a perception in its "positive role". They were used as independent variables to predict marketplace responses/behaviors in domains: 1. price search, 2. generic product purchases, 3. price recall, 4. sale responsiveness and 5. coupon redemption. They suggest that the price-related constructs explain a significant amount of variance in all five domains, providing evidence of predictive validity. They also report the

results of a higher order factor analysis, which provide some support for the positive-negative perception of price taxonomy.

(b) Past Research on Convenience/Location

Lumpkin and Burnett (1991-1992) studied the decision variables that mature consumers use in selecting a type of store when purchasing apparel. Their results show that with respect to the selection of a store type for apparel, mature consumers were homogeneous with respect to age, income, health, and other socioeconomic criteria. Consequently, they reasoned other factors influenced the store type choice decision for those consumers. It is clear that quality-related and price- and convenience-related factors distinguish store type choice. They found that those selecting specially the department stores are willing to trade higher prices and less convenient locations for quality. In contrast, those shopping at discount stores consider low price, quick checkouts, and convenient location to be more important than quality. In-home shoppers use this mode of shopping because of the convenience. They further found that price, quality, brand name, and liberal return policies matter little. Those shopping at department stores and discount stores exhibit very similar shopping orientations.

Leventhal (1992) studied aging consumer's satisfaction with private medical care and health maintenance organization (HMO). In one community, 175 aging persons completed a 20-item scale that measured satisfaction with medical care. He collected data on demographics, health care utilization, and self-assessed health status to determine if these variables would relate to HMO membership. He compared satisfaction scores between HMO and private medical care by multivariate analysis of

variance. He found that satisfaction with the doctor-patient relationship and convenience of care were higher in the private medical care group, while satisfaction with cost was higher in the HMO group. The HMO group evaluated private medical care and HMO care similarly. The private care group rated HMO care less favorably.

Past Research on Service/Product Quality

In order to assess consumer satisfaction and any reasons for dissatisfaction with professional services, Crane (1991) conducted a telephone survey involving 232 respondents in a large metropolitan city in Eastern Canada. His results show that, the overall level of satisfaction for the entire range of professional services was definitely skewed toward satisfaction, not dissatisfaction. He found that the level of dissatisfaction with individual professional services varied to some degree, with only 1-percent of respondents dissatisfied with pharmacists but nearly 15 percent dissatisfied with accountants. Furthermore, he states that those dissatisfied with the services cited both technical quality problems, such as waiting time and overcharging, as well as functional quality problems, such as discourteous or rude personnel, as the main causes of dissatisfaction. Over 3 of the respondents indicated that, if dissatisfied with professional services, they would not complain directly about their dissatisfaction.

Cronin and Taylor (1992) investigated the conceptualization and measurement of service quality and the relationships between service quality, consumer satisfaction, and purchase intentions. Previous research suggested that the current operationalization of service quality confound satisfaction and attitude. They tested an alternative method of

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operationalizing perceived service quality. Their results suggest that a performance-based measure of service quality may be an improved means of measuring the service quality construct. Furthermore, the authors feel that service quality is an antecedent of consumer satisfaction, and consumer satisfaction has a significant effect on purchase intentions. And, they add that service quality has less effect on purchase intentions than does consumer satisfaction. They suggest that managers may need to emphasize total customer satisfaction programs over strategies focusing solely on service quality.

Oliva, Oliver and MacMillan (1992) examined the issue of Customer satisfaction/dissatisfaction for marketing practitioners in terms of customer service. In particular, practitioners and academicians have noted that simply investing in greater service delivery may not return the cost of the additional investment. Part of the problem, the authors feel, is that the customer's response to service increments can be nonlinear, and satisfaction and dissatisfaction threshold may not occur at the same point. The authors propose a method for analyzing this complex behavior in a way that can lead to the development of more accurate service strategies through an understanding of the relationships among customer-transaction costs, satisfaction, and purchase loyalty. They use a catastrophe model to describe a service loyalty customer-response surface. Then, by presenting a real-world application with a small service-quality customer data set provided by General Electric Supply, they show how one actually estimate such a model and interprets the results.

By studying the applicability of two elements of service satisfaction: time and quality, Roslow, Nicholls, and Tsalikis (1992) found that the time element used two measures: consumption time and waiting time. Their five elements of quality utilized were courtesy, attentiveness, ability, accuracy, and professionalism. Their results indicate that the time factor was somewhat more significant than the quality factor in determining consumers' satisfactions in the service experience situation and in the service accomplishments.

To develop an understanding of different types of customer expectations and their sources, Zeithaml, Berry, and Parasuraman (1993) hold 16 focus group interviews with customers of various service industries. Common themes from these interviews led to their development of a conceptual model of customer service expectations. They state the model clarifies the distinction between customer satisfaction and service quality assessment within a single framework by specifying three different levels of customer expectations: 1. desired service, which reflects what customers want, 2. adequate service, the standard that customers are willing to accept, and 3. predicted service, the level of service customers believe is likely to occur. They report that a zone of tolerance separates desired service from adequate service, and considerable variation was found in customers' tolerance zones. They say that the levels of adequate service were influenced by 1. transitory service intensifiers, 2. perceived service alternatives, 3. situational factors, and 4. predicted service. And, they add that desired service and predicted service were influenced by explicit and implicit service promises and word-of-mouth communications.

Using taxonomic and dimensional analyses to identify patterns of emotional response to product experiences, Westbrook and Oliver (1991) examined the interrelationships between consumption emotion and satisfaction judgments. They used a judgmental area sample of owners of newly „purchased automobiles to examine naturally occurring emotional responses within the consumer population. They feel that five identifiable patterns of effective experience are evident: 1. happy-content, 2. pleasant surprise, 3. unemotional, 4. unpleasant surprise, and 5. angry-upset. The patterns are based on three independent effective dimensions of hostility, pleasant surprise, and interest. Their results extend prior finding of a simple bidimensional effective-response space and reveal that satisfaction measures vary in their ability to represent the effective content of consumption experi & Ices.

To examine the temporal changes in post-purchase product satisfaction for a durable goods purchase, Richins and Bloch (1991) measured involvement and satisfaction variables in a cross-sectional and a longitudinal study of automobile owners. Overall, they found that consumers with high product involvement showed slightly greater satisfaction with their cars than low-involvement consumers over the term of ownership. However, in the two-month period after purchase, they state that consumers with high product involvement showed a decline in satisfaction, whereas low-involvement consumers' satisfaction increased. They investigated the role of disconfirmation in these changes. They found that benefits and problems disconfirmation make independent contributions to satisfaction judgments, and the strength and form of contribution varied

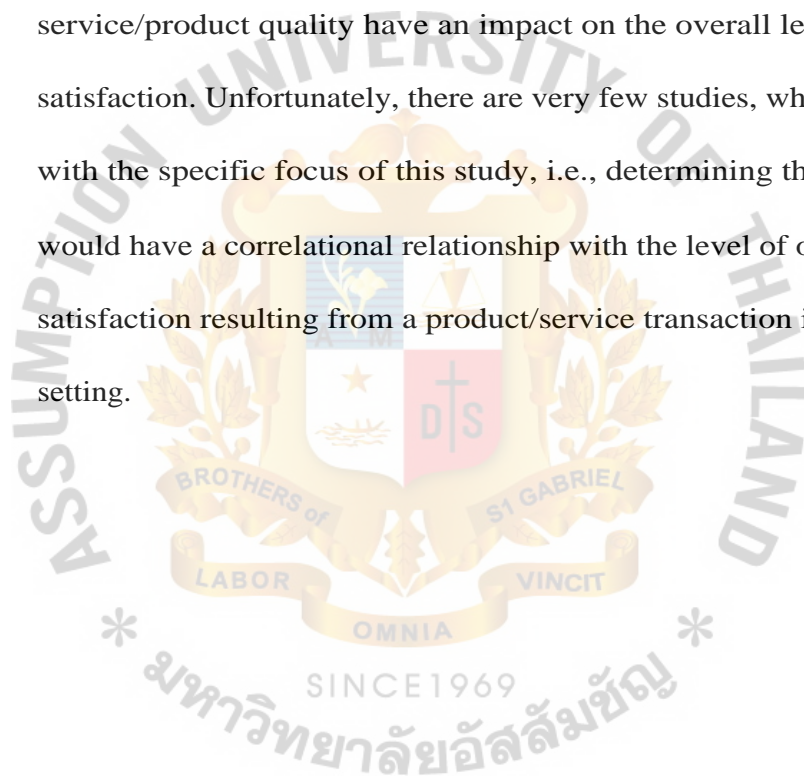
with product involvement. Their findings suggest that benefits and problems disconfirmation need to be measured separately in satisfaction research.

In the context of the consumer's evaluation of their health care service, Singh (1991) examined several alternative structures of consumer satisfaction data. He feels that a consumer's satisfaction with health care delivery may be conceptualized as a cognitive evaluation of a wide range of attributes of the care received. He posits three distinct objects for the case of health care service: the physicians, the hospital, and the insurance providers. Singh subjects his hypothesis to empirical verification using the data collected from four metropolitan areas. His results support a multidimensional, multiobject model of the satisfaction construct. However, the objects are the major source of variation in satisfaction evaluations, accounting for about 61 percent of the total variance. In addition, he concludes that object-based evaluations yield evidence of convergent, discriminant, and nomological validity.

In 1992 Smart and Martin examined 300 consumers' responses to actual manufacturers' letters addressing complaints and compliments. Their discussion is focused on understanding the components of consumer satisfaction to manufacturer's responses, and they provide suggestion to businesses to increase that satisfaction level. Their results indicate that respondents tended to evaluate, manufacturers' responses to praise letters more favorably than those to complaint letters, suggesting that it was easier to reinforce the positive attitudes of a consumer than to placate a dissatisfied consumer. They also conclude that sending the consumer some sort of written response, or failing to do so, appeared to have the most noticeable

impact on consumers' evaluations. Finally, they note that consumers recommend that manufacturers include coupons or gifts with the response.

To sum up, a review of the literature suggests that consumer satisfaction is hard to define and measure, but that there are a variety of variables which have been identified as having effects on consumer satisfaction. It would thus seem from the current research that the independent variables of cost/price, convenience/location, and service/product quality have an impact on the overall level of customer satisfaction. Unfortunately, there are very few studies, which deal directly with the specific focus of this study, i.e., determining the factors which would have a correlational relationship with the level of overall customer satisfaction resulting from a product/service transaction in a recreational setting.



III. THE THEORETICAL FRAMEWORK

This chapter presents a Theoretical Framework for the foundation of this study and the hypotheses that was developed for testing.

3.1 The Theoretical Framework

To establish a framework for measuring consumer satisfaction, this study adopts the broad framework conceptualized in parts by Singh (1991), Parasuraman, Zeithaml and Berry (1994) and Teas (1993) in that customer satisfaction results from an individual's cognitive evaluation or assessment of a wide range of variables or satisfaction measures of a product/service transaction, but specifically narrows the scope of those attributes to three major determinants of satisfaction suggested by a review of the current consumer satisfaction literature—cost/price, convenience/location, product/service. In addition, this study has taken into account the influence of various socio-economic and demographic variables as covariates of the individual's assessment of the satisfaction components of cost/price, convenience/location and product/service quality. Therefore, this model postulates that an individual's assessment of cost/price, convenience/location, product/service and various socio-economic and demographic variables has an effect on his or her overall satisfaction with a product/service transaction. See Figure 3.1.

The present study applies the framework to revisit the variables suggested by the literature review and to see if similar results are obtained as they relate to determinants of satisfaction for the members of the Internet Service Providers in Thailand, based upon their most recent Internet product/service experience with the Internet Service Providers. See Figure 3.2.

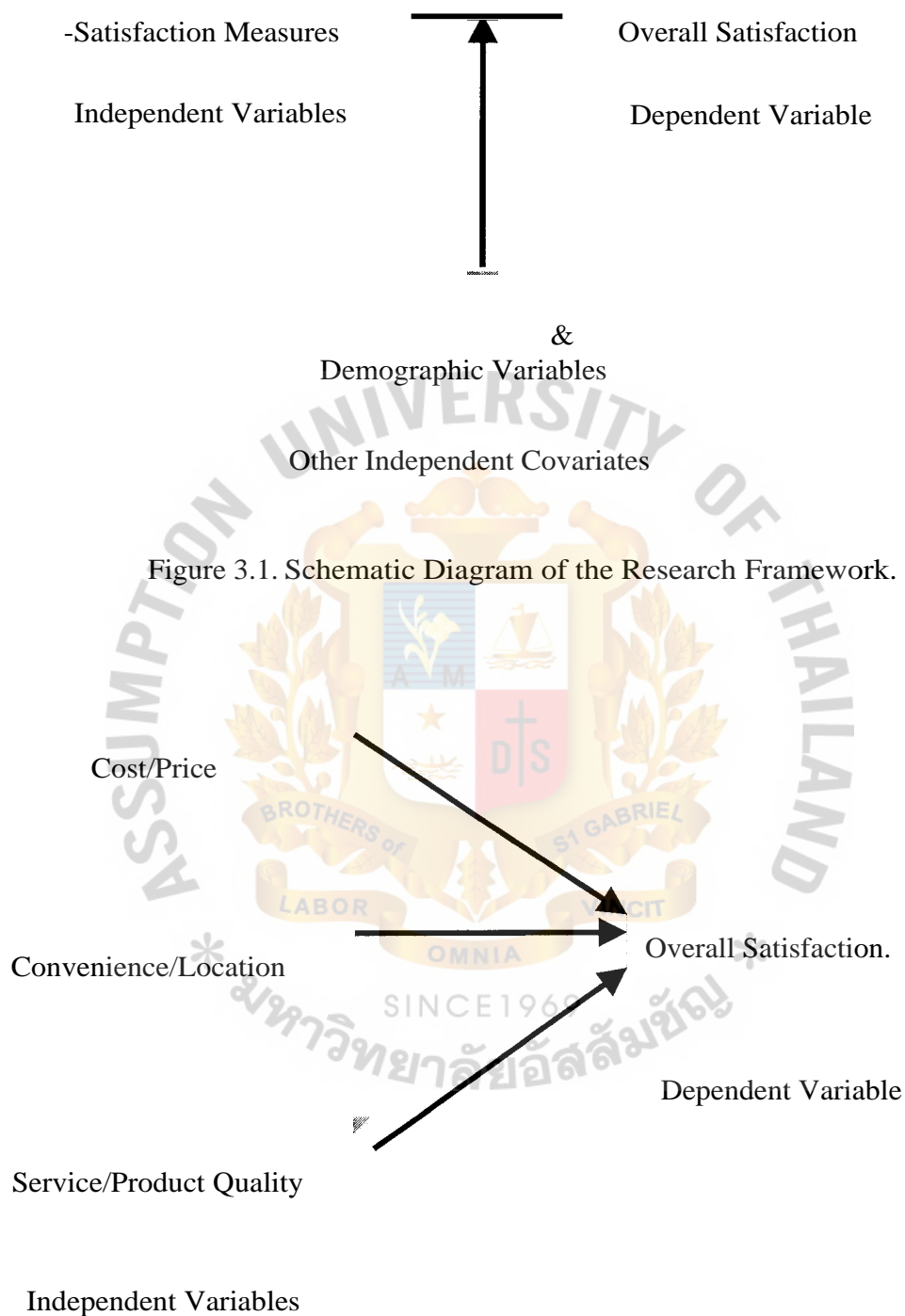


Figure 3.2. Transaction Variables Which Correlate to Overall Customer Satisfaction.

3.2 The Hypotheses

Based on the previous literature studies and the theoretical framework mentioned above, three general hypotheses were suggested for testing and are stated below.

(a) The Cost/Price Hypothesis (CP)

Given that a consumer's satisfaction may be conceptualized as a cognitive evaluation of a wide range of variables of the product/service transaction (Singh 1991), the first hypothesis tests the Cost/Price attribute of the product/service transaction (independent variable) against the dependent variable of Overall Customer Satisfaction.

CP: There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Cost/Price variable.

This means that there is a positive relationship between the stated overall level of customer satisfaction and the cost of a product or service. If a customer is satisfied with the price of something, there is more than a good chance that the customer will be satisfied overall with the wide range of variables or the totality of the product/service transaction. And, if a customer is not satisfied with the price of something, there is more than a good chance that the customer will not be satisfied overall with the wide range of variables or the totality of the product/service transaction.

(b) The Convenience/Location Hypothesis (CL)

The second hypothesis tests the Convenience/Location attribute of the product/service transaction (independent variable) against the dependent variable of Overall Customer Satisfaction:

CL: There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Convenience/Location variable.

(c) The Service/Product Hypothesis (SPQ)

The third hypothesis tests the Service/Product attribute of the product/service transaction (independent variable) against the dependent variable of Overall Customer Satisfaction:

SPQ: There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Service/Product Quality variable.

(1) Hypotheses Based on Cost/Price Variable with Covariates

In addition, this study looked at three socio-economic and demographic factors as covariates of the Cost/Price attribute of the product/service transaction. Satisfaction with the cost/price of a product/service transaction may be influenced, to some extent, by the ability to pay for that product/service transaction. Therefore, Household Income, Level of Education and Job Status were chosen as covariate variables of the Cost/Price attribute of the product/service transaction. See Figure 3.3.

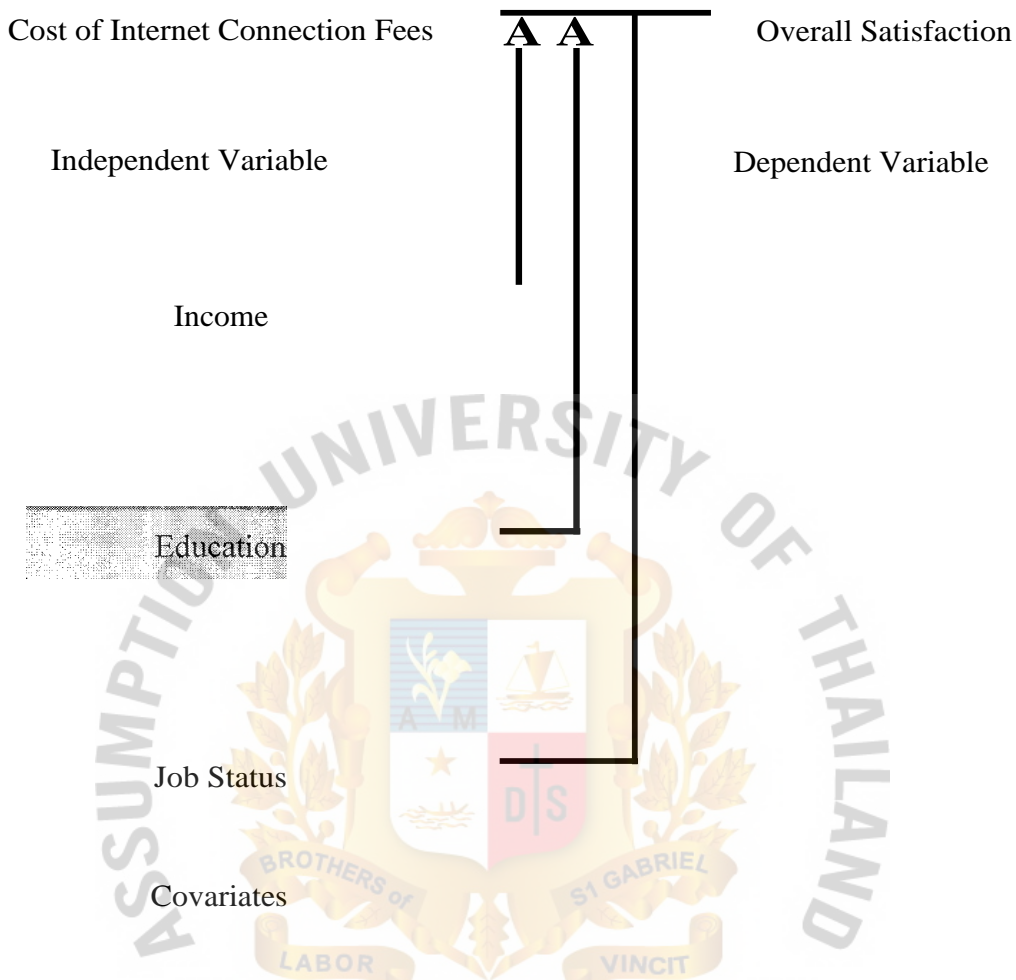


Figure 3.3. Conceptual Framework Cost/Price Variable with Socio-Economic & Demographic Factors as Covariates.

(a) Hypotheses CP1.1 with Income Covariates

CP1.1: Among those Internet users reporting combined monthly incomes "less than 10,000 Bahts", "10,001 to 30,000 Bahts", "30,001 to 50,000 Bahts" and "Over 50,000 Bahts". There is a positive relationship between the stated level of satisfaction with the Cost of Internet connection fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Provider.

(b) Hypotheses CP1.2 with Level of Education Covariates

CP1.2 : Among those Internet users reporting Levels of Education of "High school", "Vocational Degree", "Bachelor's Degree", "Master's Degree" or "Over than Master's Degree" there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Providers.

(c) Hypotheses CP1.3 with Job Status Covariates

CP1.3 : Among those Internet users reporting Job Status of "Student", "Employment", or "Unemployment", there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Providers.

(2) Hypotheses Based on Convenience/Location Variable with Covariates

Moreover, this study looked at two socio-economic and demographic factors as covariates of the Convenience/Location attribute of the product/service transaction (independent variable) and the dependent variable, overall customer satisfaction. Satisfaction with the Convenience/Location attribute of the product/service transaction may be influenced, to some extent, by how easily one to accesses to utilize the product or how frequently one utilizes the service. Therefore, Successful Percentage of connection to the network and Frequency of Access to the network were chosen as covariate

variables of the Convenience/Location attribute of the product/service transaction. See Figure 3.4.

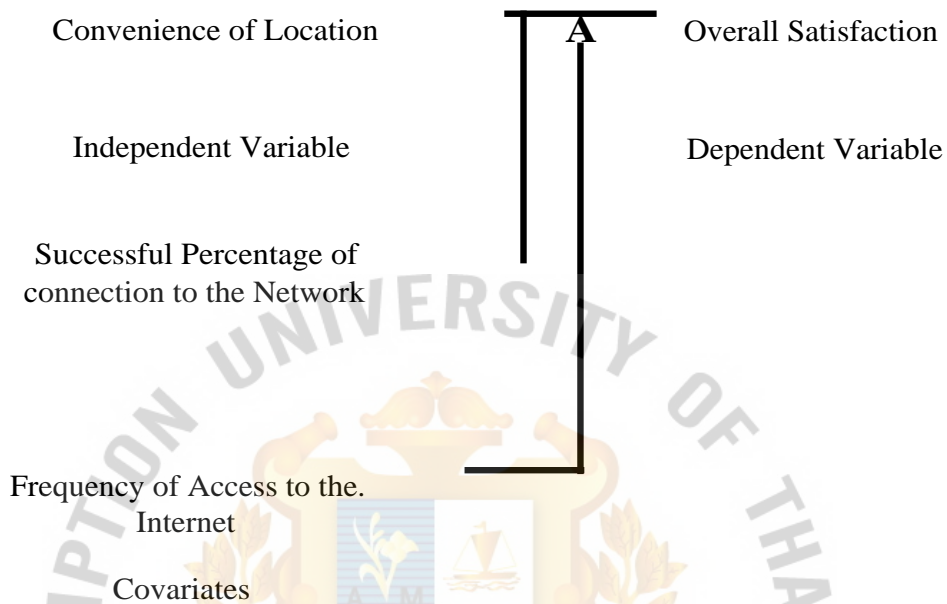


Figure 3.4. Conceptual Framework Convenience/Location Variable with Socio Economic & Demographic Factors as Covariates.

(a) Hypotheses CL1.1 with Successful Percentage of Connection to the Network Covariates

CL1.1: Among those Internet Users reporting Successful Percentage of Connection to the Network of " Less Than 50%", "50% to 79%", "80%-99%", or "100%". There is a positive relationship between the stated level of satisfaction with the Convenience/Location and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers.

(b) Hypotheses CL1.2 with Frequency of Access to the Network

Covariates

CL1.2: Among those Internet users reporting Frequency of Access to the Network "under 5 hours a week", "5-10 hours a week", "11-15 hours a week", "16-20 hours a week" and "More than 20 hours". There is a positive relationship between the stated level of satisfaction with the Convenience/Location and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers.

Hypotheses for the Service/Product Quality Variable with Covariates

Finally, this study looked at three socio-economic and demographic factors as covariates of the Service/Product Quality attribute of the product/service transaction (independent variable) and the dependent variable, overall customer satisfaction. Satisfaction with the Service/Product Quality attribute of the product/service transaction may be influenced, to some extent, by ability level, frequency of product/service utilization and experience with similar product/service transactions. Therefore, Speed of Connection, Frequency of Access to the Internet and Period of having ISP's membership were chosen as covariate variables of the Service/Product Quality attribute of the product/service transaction. See Figure 3.5.

(a) Hypotheses SPQ1.1 with Speed of Internet Connection

SPQ1.1 : Among those Internet users reporting a Speed of Internet Connection " 14.4 Kbps.", "28.8 Kbps", " 33.6 Kbps", and "More than 33.6 Kbps.". There is a positive relationship

between the stated level of satisfaction with the Condition of Internet Service Providers Membership and the Overall Level of Customer Satisfaction of Internet Service Providers.

- (b) Hypotheses SPQ1.2 with Period of Having ISP's Membership Covariates

SPQ1.2 : Among those Internet users reporting Period of having ISP's Membership of "Under 3 months", "4-6 months" , "6-9 months", "10-12 months" and "over 12 months". There is a positive relationship between the stated level of satisfaction with the Condition of Internet Service Providers Membership and the Overall Level of Customer Satisfaction of Internet Service Providers.

- (c) Hypotheses SPQ1.3 with Frequency of Access Covariates

SPQ1.3 : Among those Internet users reporting Frequency of Access of " under 5 hours a week", "5-10 hours a week", "11-b hours a week", "16-20 hours a week" and "More than 20 hours".

There is a positive relationship between the stated level of satisfaction with the Condition of Internet Service Providers Membership and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers.

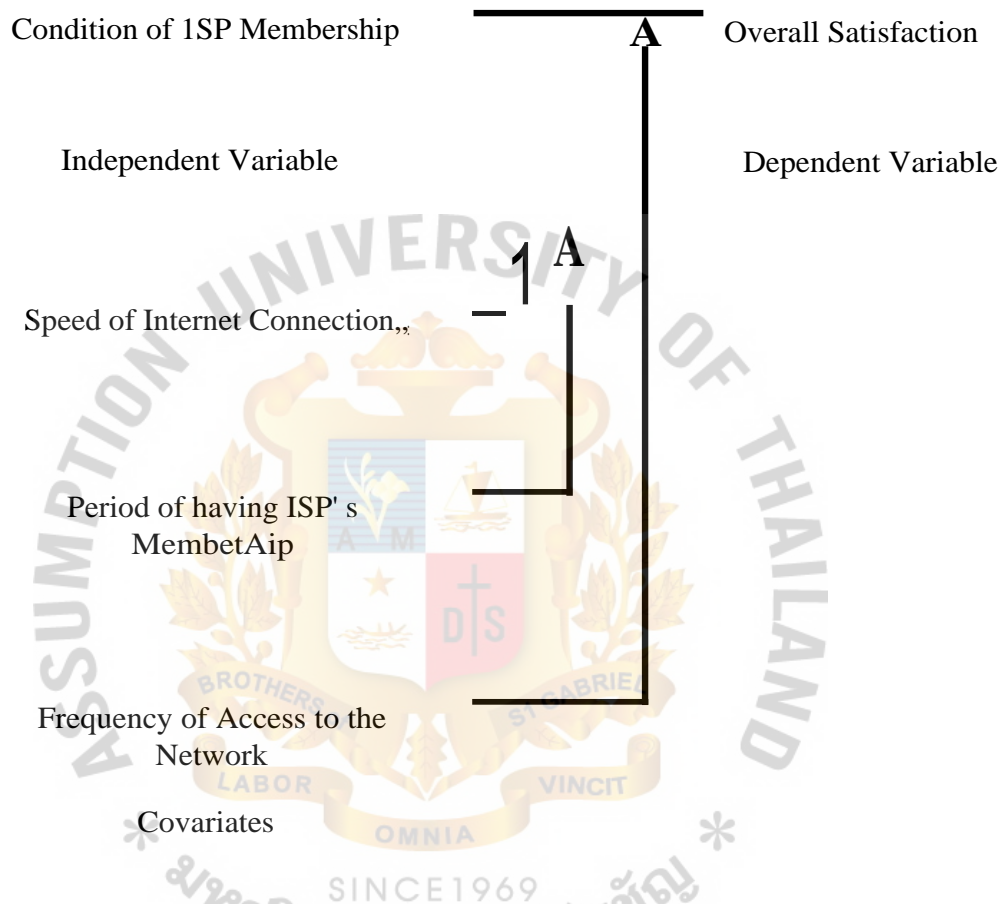


Figure 3.5. Conceptual Framework Service/Product Quality Variable with Socio-Economic & Demographic Factors as Covariates.

IV. RESEARCH METHODOLOGY

This chapter presents the research design. It also presents information on the nature of the survey instrument, the study setting, and the unit of analysis. The statistical analysis methodology is presented along with the level of significance for the test data, and the approach used for combining the data to test and analyze the hypotheses.

4.1 Research Design

A research design is a plan for conducting research in such a way that the theory and hypotheses can be tested. For this study, a survey method was used because it allowed the researcher to collect original data for describing a population too large to observe directly. The characteristics of a sampling group, then, can be taken to reflect those of the larger population. Use of the survey method is the most practical way to learn many types of information from a selected group of people.

Therefore, a survey was developed with carefully selected questions that were relevant to the research question regarding to people's socio-economic and demographic characteristics, their priorities as Internet consumers, their consumer satisfaction levels, and about the quality of the product and service they received on the date they last assessed with their ISPs. (See Appendix A for a sample of the survey instrument.)

Westbrook and Oliver (1991) tell us that satisfaction measures vary in their ability to represent the effect, i.e., emotional, content of consumption experiences. And, Crosby (1993) tells us that measuring customer satisfaction is no longer an option but an essential part of an organization's management systems—perhaps on a par with strategic planning or even accounting. This is especially true for companies operating in competitive markets where customers have numerous options should they become

dissatisfied. Some of the general methodologies of measuring customer satisfaction are reviewed briefly below.

The survey is certainly the mainstay of Customer Satisfaction Measurement (CSM) today. Although known for its flexibility and the wide variety of uses to which it can be applied, surveys are not without their limitations. Mainly there are difficulties in inferring causality based on correlational data, the lack of perfect correspondence between customer attitudes and behavior, and the need to control a variety of sampling and nonsampling errors that could render the survey invalid.

To collect the primary data, a five-paged survey instrument of 33 questions was done by directly surveying from personal interview during September 26 to October 2, 1999. Accompanying the survey was a cover letter stating the purpose of the research and instruction on how to complete the survey.

4.2 Character of the Survey Instrument

The first section of the survey contained 14 questions that collected demographic information age, gender, employment status, level of education, income, a criteria for subscription with ISP, period of being ISP's membership, successful percentage of connection, usual time to access the network, usual program of play, speed of modem, frequency of play on the Internet, and opinion about their ISP's speed and response time.

The second section asked the respondents to give a priority ranking of the cost of the Internet connection fees, speed of connection, ease of network connection, variety of billing payment, quality of customer support service, and overall rating according to what they considered most important to least important to them as Internet consumers. The categories were described as 6 = Most Important to 1 = Least Important, respectively.

The third section of the survey used a 7-point Likert scale to survey the respondent's consumer satisfaction level with the independent variables of cost of Internet connection fees, quality of customer support service, ease of network connection, condition of ISP's membership, and overall satisfaction level, the dependent variable in this study. In addition other factors of interest, namely speed of data transfer and variety of billing payment, were surveyed. Seven levels described the level of satisfaction. The categories were defined as 7 = Strongly Satisfied, 6 = Satisfied, 5 = Slightly Satisfied, 4 = Neutral, 3 = Slightly Dissatisfied, 2 = Dissatisfied, and 1 = Strongly Dissatisfied.

Also, a 7-point Likert scale was employed in a fourth section to record the respondent's opinion of the product/service quality rating for the cost of Internet connection fees, condition for the ISP's member, quality of customer support service, speed of data transfer, ease of network connection, and variety of billing payment. The rating levels have seven categories. The categories were defined as 7 = Excellent, 6 = Very Good, 5 = Good, 4 = Average, 3 = Fair, 2 = Poor, and 1 = Very poor.

4.3 Unit of Analysis

This research focuses on the members of the ISPs in Thailand, especially in Bangkok area and 'examines the overall level of customer satisfaction of these Internet users and the factors that significantly correlate with their level of satisfaction. Therefore, the unit of analysis in each individual user is the ISPs in Thailand, who responded to the questionnaire. None of the variables was controlled, and no artificial setting was created for the study.

4.4 Statistical Analysis Methodology

Statistical analysis is a process of transforming data into meaningful information that reveals patterns of relationships among data. To that end, SPSS, (the Statistical

Package for Social Sciences) version 7.52, was used to analyze the data. Mean, medians, standard deviations, correlations and frequency distributions were used on all items from the survey to get a feel for a data.

Additionally, since the data under consideration are Likert-type or interval levels (i.e. the responses were chosen from a scale of 1 to 7, with 1 being "Strongly Dissatisfied" and 7 being "Strongly Satisfied"), an analysis of variance (ANOVA) procedure was applicable for testing the hypothesis that the dependent variable was influenced by an independent variable. The ANOVA procedure also allowed the researcher to include continuous explanatory variables, termed covariates, as part of the hypothesis testing. In other words, the researcher looked at the means of the dependent and independent variables. If there were a significant difference in their means, one could say that the independent variable (e.g., Cost of Internet Connection Fees) influenced or affected the dependent variable (Overall Level of Customer Satisfaction). And, by using an additional factor or covariate (e.g., Income), the researcher was able to look at the specific sub-categories (e.g., among the people reporting income of under 30,000 Bahts per month) of an additional socio-economic and demographic variable to report more specially on the factors correlating to the dependent variable, which in this study was the overall level of customer satisfaction of ISP. Note, by default, ANOVA assesses the covariate before it assesses the factor's main effects.

4.5 Level of Significance

A test condition 0.05 was used in all cases to establish significant differences between the categories. This means that any p value of less than 0.05 was considered significant, and any p value above 0.05 was considered not significant. One, therefore, could conclude that any significance found would indicate that there was a real

difference, on average, between the two items in question as influenced by the covariate factor.

4.6 Approach to Data Analysis

The initial analysis of the data was concerned with categorizing all the 100 respondents by their answers to a question regarding their overall customer satisfaction. Then, for purposes of testing the formal hypotheses, these respondents were combined into two categories: those Fully Satisfied and those Not Fully Satisfied. The first group was termed Fully Satisfied because they reported their overall level of satisfaction as either "strongly satisfied" or "satisfied". The second group was termed Not Fully Satisfied because they reported their overall level of satisfaction as either "slightly satisfied", "neutral", "slightly dissatisfied", or "strongly dissatisfied". From a total of 100 respondents, there were 41 classified as Fully Satisfied and 59 classified as Not Fully Satisfied. Of those classified as Not Fully Satisfied, there were none who reported being "strongly dissatisfied", 4 who were "dissatisfied", 15 "slightly dissatisfied", 40 "neutral", and 32 "slightly satisfied". Of those Fully Satisfied, 9 were "satisfied" and none who reported strongly satisfied.

Then, after the sample had been combined into two satisfaction levels, the demographic categories were combined into more meaningful groups. Finally, one way analysis of variance with covariates was used to test the differences in means among the demographic groups, thus allowing acceptance or rejection of the hypotheses. Simply put, this technique allows the researcher to determine if the means of two or more groups are significantly different or not.

V. RESULTS AND ANALYSIS

In this chapter, the results regarding certain hypotheses of interest in the study are presented. The sample characteristics and the skewness of the data are discussed. Then the particular types of procedures used to produce the data are discussed. Next, the level of significance is indicated. Finally, the results of the data are presented.

5.1 Sample Design

The sample size of this survey is 100 respondents that are used as a systematic method of random sampling. The needed and essential information from this survey will be obtained from the Internet users who are members of the Internet Service Provider. A total of 100 questionnaires were done by directly surveying from personal interviews during September 26 to October 2, 1999. A random system began by selecting the business and educational areas which are crowded with office buildings and educational institutions. Following is, choosing the person who shows the sign that he/she is interested in the survey and expresses willingness to give the answers to the surveys. After finishing the interview, the questionnaire must be checked to find the errors and incomplete data. If the data is inadequate, the researcher asked those respondents to complete it again. Finally, 100 questionnaires were completed and analyzed.

In a statistical analysis that attempts to create a picture of sample characteristics from numerical descriptive measures, two tendencies are important to note, central tendency and dispersion. Central tendency, as measured, for example, by mean, mode, and median, locates the center of the distribution of measurements and is an important descriptive characteristic of statistical data. (Ott and Mendenhall 1990) However, although two sets of data may have similar averages, or central tendencies, they may vary greatly with respect to the spread from the central tendency or dispersion of the

individual observations. (Hamburg, 1970) That is why measures of dispersion are also important in a statistical study.

5.2 The Skewness of the Data

Two sets of data may have similar averages, or central tendencies, but they may vary greatly with respect to the spread from the central tendency or dispersion of the individual observations in the direction of the extremes. In fact, because of this spread or skewed distribution, none of the averages may be typical (Hamburg, 1970). Therefore, the skewness of the data to the right or the left may be an important consideration in some studies. Although measures of skewness exist, and in fact were calculated for this study, the reality of a Likert-type study is that skewness is built in with many distributions displaying a concentration of frequencies at relatively high values, with a small number of extremely low values causing a tail extending to the right. Be that as it may, in this study, data distributions refer to the measurements reporting much larger observations or weights than expected.

In a statistical analysis, which attempts to create a mental picture of sample characteristics from numerical descriptive measures, one of the important tendencies to note is that of central tendency. Central tendency, as measured, for example, by the mean or average, is an important descriptive characteristic of statistical data. However, note that the mean can be influenced by extreme measurements.

5.3 Research Finding and Analysis of the Demographic Characteristics

Background characteristics in terms of demographic variables of the total of respondents are summarized in the following tables.

(1) Total Number of Respondents Classified by Sex

In this research, there are totally 100 respondents, mostly 52% of the total respondents are male and 48% are female.

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Table 5.1. Table of Respondents Classified by Sex.

Sex	Frequency	%A
Male	52	52.00
Female	48	48.00
Total	100	100.00

(2) Total Number of Respondents Classified by Age

From this research, the group of age between 21-25 years is the majority with 37% of the total sample populations, while age between 26-30 years is ranked second with 26%. Next, 25% followed by 15-20 years, 9% of over 30 years and 5% of under 15 years, respectively.

Table 5.2. Table of Respondents Classified by Age.

Age	Frequency	%A
Under 15	5	5.00
15-20	23	23.00
21-25	37	37.00
26-30	26	26.00
Over 30	9	9.00
Total	100	100.00

(3) Total Number of Respondents Classified by Employment Status

The employment status is the largest group of the respondents, which are 51%, and followed by 40% of the respondents who are students. The unemployment status is the lowest group with only 8%.

Table 5.3. Table of Respondents Classified by Employment Status.

Employment Status	Frequency	
Student	40	40.00
Employment	51	51.00
Unemployment	9	9.00
Total	100	100.00

(4) Total Number of Respondents Classified by Education Level

Analyzing the question of the level of education category, it is found that 58% of the total of respondents have Bachelor's Degree, 18% followed by Master's Degree, 12% at High school level, Vocational Degree is 11% and only 1% is over Master's Degree, respectively.

Table 5.4. Table of Respondents Classified by Education.

Education	Frequency	
High School	12	12.00
Vocational Degree	11	11.00
Bachelor's Degree	58	58.00
Master's Degree	18	18.00

Table 5.4. Table of Respondents Classified by Education. (Continued)

Education	Frequency	OA
Over Master's Degree	1	1.00
Total	100	100.00

(5) Total Number of Respondents Classified by Monthly Income

The 49 percent of respondents who have a monthly income less than 10,000 Bahts shows the highest, while 10,001-30,000 Bahts shows the second, followed by 30,001-50,000 Bahts and over 50,000 Bahts shows the lowest percent.

Table 5.5. Table of Respondents Classified by Monthly Income.

Income	Frequency	
Less than 10,000 Bahts	49	49.00
10,001-30,000 Bahts	41	41.00
30,001-50,000 Bahts	8	8.00
50,000 Bahts Up	2	2.00
Total	100	100.00

(6) Total Number of Respondents Classified by Years of Internet Playing Experience.

The percentage of respondents who have an experience with using Internet for 1-2 years shows the highest, while those using for more than 3

years shows the second, followed by 2.1-3 years and less than 1 year shows the lowest percentage.

Table 5.6. Table of Respondents Classified by Years of Internet Playing Experience.

Year	Frequency	
Less than 1 year	18	18.00
1-2 years	41	41.00
2.1-3 years	19	19.00
More than 3 years	20	20.0
Total	100	100.0

(7) Total Number of Respondents Classified by Frequency to Access the Network

The result shows that most of the total respondents spent their time online the network for 5-10 hours a week, followed by under 5 hours a week, 11-15 hours a week. In the lowest, 16-20 hours and more than 20 hours are the same percentage.

Table 5.7. Table of Respondents Classified by Frequency to Access the Network.

Hours per Week	Frequency	
Under 5 hours	22	22.00
5-10 hours	35	35.00
11-15 hours	15	15.00
16-20 hours	14	14.00

Table 5.7. Table of Respondents Classified by Frequency to Access the Network.
(Continued)

Hours per Week	Frequency	
More than 20 hours	14	14.00
Total	100	100.00

(8) Total Number of Respondents Classified by Period of Having the ISP's Membership

Mostly 38% of the total of respondents are subscribed with their current Internet Service Provider's membership about 4-6 months, under 3 months with 28% is ranked second. There are 15% and 10% of respondents that are being the ISP's member for about 7-9 months and 10-12 months respectively. The least group with 9% is more than 12 months of having a membership with ISP.

Table 5.8. Table of Respondents Classified by Period of Having the ISP's Membership.

Period of Time	Frequency	
Under 3 months	28	28.00
4-6 months	38	38.00
7-9 months	15	15.00
10-12 months	10	10.00
More than 12 months	9	9.00
Total	100	100.00

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(9) Total Number of Respondents Classified by Most Time to Access

The highest percentage of most time to access the Internet is shown for 18_00-24.00. Next, followed by 12.00-18.00, 24.00-6.00 and 6.00-12.00 respectively.

Table 5.9. Table of Respondents Classified by Most Time to Access.

Time	Frequency	%
6.00 to 12.00	10	10.00
12.00 to 18.00	31	31.00
18.00 to 24.00	42	42.00
24.00-6.00	17	17.00
Total	100	100.00

(10) Total Number of Respondents Classified by Modem Speed Can Connect with Their ISP' s System

Speed modem at 33.6 Kbps is the highest speed that most users can connect and more than 33.6 Kbps speed is the second rank. Next, followed by 28.8 Kbps. Speed, 14.4 Kbps. and under 14.4 Kbps. is shown as the lowest percentage.

Table 5.10. Table of Respondents Classified by Modem Speed Can Connect.

Speed of Modem	Frequency	
Under 14.4 Kpbs.	2	2.00
14.4 Kbps.	8	8.00

Table 5.10. Table of Respondents Classified by Modem Speed Can Connect.
(Continued)

Speed of Modem	Frequency	
28.8 Kbps.	17	17.00
33.6 Kbps	39	39.00
More than 33.6 Kbps	34	34.00
Total	100	100.00

(11) Total Number of Respondents Classified by Successful Percentage of Connection to the Network

Most of the respondents have 80 to 90 successful percentage of connection to the network, followed by 50% to 79%. Next, followed by less than 50%, while 100% successful connection shows at the least.

Table 5.11. Table of Respondents Classified by Successful Percentage of Connection.

Successful percentage	Frequency	
Less than 50.0	15	15.00
50.0 to 79.0	30	30.00
80.0 to 99.0	45	45.00
100.0	10	10.00
Total	100	100.00

(12) Total Number of Respondents Classified by Opinion about ISP's Speed and Response Time

The result shows that most of the total respondents think that their ISP's speed and response time are slow, and those fast are shown second. Next, at the lowest, very fast and very poor are shown in the same percentage.

Table 5.12. Table of Respondents Classified by Opinion about ISP's Speed and Response Time.

Speed and Response Time	Frequency	
Very fast	8	8.00
Fast	38	38.00
Slow	46	46.00
Very poor	8	8.00
Total	100	100.00

(13) Total Number of Respondents Classified by Criteria for Selecting an ISP

From 100 total respondents who are the members of ISP in Thailand, the highest percentage is influenced because the ISP provides reasonable Internet Connection rates. The second highest percentage is influenced, because of the suggestion from others and followed by good sales promotion. Next is the reputation of the company and the last criterion is excellent service from customer service.

Table 5.13. Table of Respondents Classified by Criteria for Selecting an ISP.

Reasons	Frequency	%
Good sales promotion	21	21.00
Excellent service of the customer service	5	5.00
Suggestion from Others	29	29.00
The reputation of the company	15	15.00
Internet connection rates are reasonable	30	30.00
Total	100	100.00

(14) Total Number of Respondents Classified by Usual Internet Program in Use

Based on usual Internet program in use, 47% of respondents always use World Wide Web (WWW) and shows the highest, while 27% using Email shows second, followed by 25% using Chat program, 1% use FTP and none of them have used Newsgroup.

Table 5.14. Table of Respondents Classified by Usual Internet Program in Use.

Program	Frequency	
E-mail	27	27.00
World Wide Web	47	47.00
Chat/IRC	25	25.00
Newsgroup	0	0.00
FTP	1	1.00
Total	100	100.00

(b) Item of Importance to Internet Consumers

Table 5.15 below shows the results if the rank ordering is by means of various items of importance to Internet consumers. Not surprisingly, the cost of Internet Connection Fees and the ease of network connection were the most important priority, on an average of these respondents. No one wants to use the Internet at an expensive price and hardly connected to the network. Also, not too surprising, is the fact that the speed of data transfer ranked second, on an average, in priority for those Internet users. If the users can not get the fast speed of data transfer, they do not enjoy while downloading some web site or some data on the Internet. The quality of customer support was coming in a third range and ISP membership was of more than average importance. At last, coming in at below average importance to the Internet consumer was the variety of billing payment.

Table 5.15. Rank Order of Internet Consumer Priorities by Mean.

Item of Importance to Internet Consumers	Ranking	Mean
Cost of Internet Connection Fees	1	4.81
Ease of network connection	1	4.81
Speed of the data transfer	2	4.36
Quality of customer support	3	2.78
ISP membership condition	4	2.63
Variety of billing payment	5	1.60

(c) Rank Order of Consumer Satisfaction Levels

Table 5.16 gives the rank order of consumer satisfaction levels by mean. The item ranking highest, on an average, in consumer satisfaction was the convenience of the ISP. This is a little surprising since the ISP membership condition ranked the fourth in priority to these same Internet users and ranked higher than the cost of Internet Connection Fees and the ease of network connection. Accessibility to the ISP in Thailand must have ISP membership condition for most of these Internet users. In general, one can say that the Internet members are very satisfied with these independent customer satisfaction variables, with the lowest level of satisfaction being given to the quality of customer support and the speed of data transfer.

Table 5.16. Rank Order of Consumer Satisfaction Levels by Mean.

Consumer Satisfaction Variables	Ranking	Mean
ISP membership condition	1	4.61
Variety of billing payment	2	4.57
Ease of network connection	3	4.42
Overall satisfaction with ISP	4	4.27
Cost of Internet Connection Fees	5	4.22
Speed of the data transfer	6	3.93
Quality of customer support	7	3.82

(d) Rank Order of Product/Service Quality Variables

Table 5.17 displays the rank order of product/service quality variables.

Note that, there was an attempt made in the survey instrument to differentiate between the levels of feelings of satisfaction, (e.g., so questions elicited responses such as strongly satisfied, slightly satisfied or dissatisfied, etc.) toward some independent variables which were suggested as determinants of customer satisfaction and the product/service quality ratings (e.g., so questions elicited responses such as excellent, good, very poor, etc) of what were essentially the same variables. If the respondents appreciated this subtle difference or even noticed it, the result of table 4.16 track closely with the result of table 4.17. There was some reordering of the variables at the rankings, but on an average, the cost of Internet connection fees, speed of data transfer and quality of customer support tended to be near the bottom of both charts.

Table 5.17. Rank Order of Product/Service Quality Variables.

Product/Service Quality Variables	Ranking	Mean
ISP membership condition	1	4.50
Overall satisfaction with ISP	2	4.15
Ease of network connection	3	4.12
Cost of Internet Connection Fees	4	4.03
Speed of the data transfer	5	3.83
Quality of customer support	6	3.77

5.4 Results

From the theoretical framework previously discussed and from the suggestions of the literature study, various hypotheses were developed regarding correlations with the stated Overall Level of Customer Satisfaction with Internet Service Providers in Thailand. The hypotheses are discussed below with their reported results.

(1) Hypothesis CP1.0—The Cost/Price Variable

From the three general hypotheses that were culled from the literature, the first hypothesis suggests:

CP1: There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Cost/Price variable.

In this study the Cost/Price variable is measured by the Cost of Internet Connection Fees of ISPs in Thailand. Since the p value of 0.00 was less than the test condition of 0.05, hypothesis CP1.0 was substantiated. (See Table 4.18 below). It means, therefore, that there is a positive relationship between the stated Overall Level of Customer Satisfaction and the Cost of Internet Connection Fees. This confirms the first of the findings of the current literature. It can conclude that Cost/Price, in this case represented by the Cost of Internet Connection Fees variable, does have a strong correlation with Overall Level of Customer Satisfaction.

Table 5.18. ANQVA - Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Cost of Internet Connection Fees of ISPs.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Eitece	29.281	5	5.856	8.818	.000
Model	29.281	5	5.856	8.818	.000
Residual	62.429	94	.664		
Total	91.710	99	.926		

(2) Hypothesis CL1—The Convenience/Location Variable

The second general hypothesis from the literature suggests:

CL1: There is a positive relationship between the stated Overall Level of customer satisfaction and the convenience /location variable.

In this study the convenience/location variable is measured by the Convenience/Location of Ease of access to the network. Since the p value of 0.00 was less than the test condition of 0.05, hypothesis CL1.0 was substantiated. (See Table 5.19 below). It means, therefore, that there is a positive relationship between the stated Overall Level of Customer Satisfaction and the Convenience /Location of Ease of access to the network. This confirms the second of the findings of the current literature. It can conclude that Convenience/Location, in this case represented by the Convenience/Location variable, does have a strong correlation with Overall Level of Customer Satisfaction.

Table5.19. ANOVA-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Convenience of Access to the Netw6rk.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	45.906	6	7.651	15.535	.000
Model	45.906	6	7.651	15.535	.000
Residual	45.804	93	.493		
Total	91.710	99	.926		

(³) Hypothesis SPQ1—The service/Product Quality Variable

The third general hypothesis from the literature suggests:

SPQ1: There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Service/Product Quality variable.

In this study the Service/Product Quality variable is measured by the Speed of Connection. Since the p value of 0.00 was less than the test condition of 0.05, hypothesis SPQ1 was substantiated (See table below). It means, therefore, that there is a positive relationship between the stated overall level of Customer Satisfaction and the Speed of Connection. This confirms the third finding of the current literature. It can conclude that Service/Product Quality, in this case represented by the Speed of connection variable, does have a strong correlation with Overall Level of Customer Satisfaction.

Table 5.20. ANOVA-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Membership Condition.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	42.363	5	8.473	16.139	.000
Model	42.363	5	8.473	16.139	.000
Residual	49.347	94	.525		
Total	91.710	99	.926		

(4) Covariate Hypotheses

Hypotheses Based on Cost/Price Variable Covariates

The remaining hypotheses of interest add various covariates based on selected socio-economic and demographic factors to the three general hypotheses suggested by the literature studies mentioned previously.

Hypothesis CP, which is based on the independent variable of Cost/Price and the dependent variable of Overall Level of Customer Satisfaction, has 3 general classes of socio-economic and demographic variables of interest applied to it. The variables of interest with the first general hypothesis suggested from the literature studies are Income, Education and Job Status.

The researcher grouped each of these demographic variables of interest into more or less equal size samples. Based on the survey data, the socio-economic variable of monthly income was distributed by the researcher into covariate variables of "less than 10,000 Bahts", "10,001 to 30,000 Bahts", "30,001 to 50,000 Bahts" and "over 50,000 Bahts". Education was segmented into covariates by categories of "High school", "Vocational Degree", "Bachelor's Degree", "Master's Degree" and "over Master's

Degree" And, the demographic variable of Job Status was further grouped into the three classifications of "Student", "Employment" and "Unemployment".

Table 5.21. ANOVA-Overall. Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Cost of Internet Connection with Monthly Income as Covariate.

ANOVA

Source	Sum ot Squares	df	Mean Square	F	Sig.
Main Ellects	29.378	5	5.876	8.994	.000
Model	30.953	6	5.159	7.896	.000
Residual	60.757	93	.653		
Total	91.710	99	.926		

Table 5.22. ANOVA-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Cost of Internet Connection with Education as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Ellects	25.091	5	5.018	7.652	.000
Model	30.718	6	5.120	7.806	.000
Residual	60.992	93	.656		
Total	91.710	99	.926		

Table 5.23. ANOVA-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Cost of Internet Connection with Job Status as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	21.055	5	4.211	6.514	.000
Model	31.589	6	5.265	8.144	.000
Residual	60.121	93	.646		
Total	91.710	99	.926		

Hypothesis CP1-CP3 with "Monthly Income", "Education", and "Job Status" as Covariate

CP1-CP3: Among those Internet users reporting combined monthly incomes, education, and job status, there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees and the Overall Level of Customer Satisfaction with ISP.

Since the p value of 0.00 for hypothesis CP1-CP3 was less than the test condition of 0.05, this hypothesis was substantiated. Therefore, it means that there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees with ISP in Thailand and the Overall Level of Customer Satisfaction among those Internet users reporting combined monthly incomes, education, and job status.

Hypotheses Based on Convenience/Location Variable Covariates

Hypothesis CL, which is based on the independent variable of Convenience/Location and the dependent variable of Overall Level of Customer Satisfaction, has 2 general variables of socio-economic and demographic covariates applied to it. The variables of interest with the second general

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hypothesis suggested from the literature studies are Successful percentage of connection and Frequency of access to the Internet. Data from each of these demographic variables of interest was distributed by the researcher into more or less equal size samples. Based on the survey data, the demographic variable of successful percentage of connection was recoded into covariate variables of "less than 50%", "50% to 79%", "80% to 99%" and "100%". Moreover, the demographic variable of frequency of access to the Internet Connection was segmented into covariates of "under 5 hours a week", "6-10 hours a week", "11-15 hours a week and "more than 15 hours a week "

Table 5.24. ANOVA with Covariate-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Convenience/ Location of ISP in Thailand with Frequency of Access to the Internet Connection as Covariate.

ANOVA					
Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	33.625	5	6.725	15.404	.000
Model	51.108	6	8.518	19.511	.000
Residual	40.602	93	.437		
Total	91.710	99	.926		

Table 5.25. ANOVA with Covariate-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Convenience/ Location of ISP in Thailand with Successful Percentage of Connection as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	12.216	6	2.036	4.382	.001
Model	48.966	7	6.995	15.056	.000
Residual	42.744	92	.465		
Total	91.710	99	.926		

Hypothesis CL1-CL2 with "Successful percentage of connection" and "Frequency of access to the Internet" as Covariate

CL1-CL2: Among those Internet users reporting combined with successful percentage of connection and frequency of access to the Internet", there is a positive relationship between the stated level of satisfaction with the Convenience/Location of ISP in Thailand and the Overall Level of Customer Satisfaction with ISP.

Since the p value of 0.00 for hypothesis CL1-CL2 was less than the test condition of 0.05, this hypothesis was substantiated. Therefore, it means that there is a positive relationship between the stated level of satisfaction with the Convenience/Location of ISP in Thailand and the Overall Level of Customer Satisfaction among those Internet users reporting combined successful percentage of connection and frequency of access to the Internet connection.

Hypotheses Based on the Service/Product Quality Variable with Covariates.

Hypothesis SPQ1, which is based on the independent variable of Service/Product Quality and the dependent variable of Overall Level of Customer Satisfaction, has 3 general variables of socio-economic and demographic

covariates applied to it. The variables of interest with the third general hypothesis suggested from the literature studies are Speed of connection, Period of having the membership with ISP and Frequency of access to the Internet connection. Each of these demographic variable of interest was recoded by the researcher into more or less equal size samples. Based on the survey data, the variable of speed of connection was divided by the researcher into covariate variables of "less than 14.4 Kbps."; "14.4 Kbps.", "28.8 Kbps.", "336.6 Kbps." and "more than 33.6 Kbps.". Period of having the membership with ISP was distributed into covariates of "under 3 months", "4-6 months", "7-9 months", "10-12 months" and "more than 12 months" And, the demographic variable of frequency of access to the Internet Connection was further grouped into covariates of "under 5 hours a week", "6-10 hours a week", "11-15 hours a week and "more than 15 hours a week ".

Table 5.26. ANOVA with Covariate-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Service/Product Quality of ISP in Thailand with Speed of Connection as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Etfects	35.243	5	7.049	15.950	.000
Model	50.612	6	8.435	19.088	.000
Residual	41.098	93	.442		
Total	91.710	99	.926		

Table 5.27. ANOVA with Covariate-Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Service/Product Quality of ISP in Thailand with Period of Having the Membership with ISP as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	35.524	5	7.105	16.837	.000
Model	52.467	6	8.744	20.723	.000
Residual	39.243	93	.422		
Total	91.710	99	.926		

Table 5.28. ANOVA with Covariate- Overall Level of Customer Satisfaction with the Internet Service Providers by Level of Satisfaction with Service/Product Quality of Internet Service Providers in Thailand with Frequency of Access to the Internet Connection as Covariate.

ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Main Effects	33.625	5	6.725	15.404	.000
Model	51.108	6	8.518	19.511	.000
Residual	40.602	93	.437		
Total	91.710	99	.926		

Hypothesis CPQ1-CPQ3 with "Speed of connection", "Period of having the membership with ISP" and "Frequency of access to the Internet" as Covariate

CPQ1-CPQ3: Among those Internet users reporting combined with Speed of connection, Period of having the membership with ISP and frequency of access to the Internet", there is a positive relationship between the stated level of satisfaction with the Service/Product Quality of ISP in Thailand and the Overall Level of Customer Satisfaction with ISP.

Since the p value of 0.00 for hypothesis CPQ1-CPQ3 was less than the test condition of 0.05, this hypothesis was substantiated. Therefore, it means that there

is a positive relationship between the stated level of satisfaction with the Service/Product Quality of ISP in Thailand and the Overall Level of Customer Satisfaction among those Internet users reporting combined Speed of connection, Period of having the membership with ISP, and frequency of access to the Internet connection.



VI. CONCLUSIONS AND RECOMMENDATIONS

This last chapter summarized the research findings, the conclusion reached, lists, implications for further research and suggests some benefits for managers.

6.1 Summary of Research Findings

The results from the statistical analysis of the survey presented in Chapter IV are summarized as follows:

- (a) There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Cost/Price variable.
- (b) There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Convenience/Location variable.
- (c) There is a positive relationship between the stated Overall Level of Customer Satisfaction and the Service/Product Quality variable.
- (d) Among those Internet users reporting the Income covariates tested of "less than 10,000 Bahts", "10,001 to 30,000 Bahts", "30,001 to 50,000 Bahts" and "Over 5,000 Bahts", there is a positive relationship between the stated level of satisfaction with the Cost of Internet connection fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Provider.
- (e) Among those Internet users reporting Levels of Education of "High school", "Vocational Degree", Bachelor Degree", "Master's Degree or "Over Master's Degree" there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Providers.

- (1) Among those Internet users reporting Job Status of "Student", "Employment or "Unemployment", there is a positive relationship between the stated level of satisfaction with the Cost of Internet Connection Fees and the Overall Level of Customer Satisfaction with Thailand Internet Service Providers.
- (g) Among those Internet Users reporting Successful Percentage of Connection with the ISP's network of " Less Than 50%", "50% to 79%", "80% to 99%" or "100%", there is a positive relationship between the stated level of satisfaction with the Convenience/Location and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers?
- (h) Among those Internet users reporting Frequency of Access to the Network "under 5 hours a week", "5 -10 hours a week", "11-15 hours a week", "16-20 hours a week" and "More than 20 hours", there is a positive relationship between the stated level of satisfaction with the Convenience/Location and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers.
- (i) Among those Internet users reporting a Speed of Internet Connection "14.4 Kbps." "28.8 Kbps", " 33.6 Kbps", and "More than 33.6 Kbps.". There is a positive relationship between the stated level of satisfaction with the Condition of Internet Service Providers Membership and the Overall Level of Customer Satisfaction of Internet Service Providers.
- (j) Among those Internet users reporting Period of having the membership of ISP "Under 3 months", "4-6 months", "7-9 months", "10-12 months" or "Over 12 months". There is a positive relationship between the stated level of satisfaction with the Condition of Internet Service Providers Membership

and the Overall Level of Customer Satisfaction of Internet Service Providers.

(k) Among those Internet users reporting Frequency of Access of "under 5 hours a week", "5-10 hours a week", "11-15 hours a week", "16-20 hours a week and "More than 20 hours". There is a positive relationship between the stated level of satisfaction with the Condition of Internet Service Providers Membership and the Overall Level of Customer Satisfaction of Thailand Internet Service Providers.

6.2 Conclusions Reached

The results of this research are that there is a positive relationship between a customer's satisfaction with the product/service experience received and the three major variables of satisfaction suggested by the literature: cost/price, convenience/location, and product/service.

Also, there is a positive relationship between satisfaction with the cost/price variable and overall level of customer satisfaction at all levels of income, education and job status covariates studied.

Moreover, there is a positive relationship between satisfaction with the convenience/location variables and overall levels of customer satisfaction at all frequencies of access to the Network, and successful percentage of connection with the ISP's system.

In addition, there is a positive relationship between satisfaction with the service/product quality variable and overall level of customer satisfaction at all levels of speed of Internet connection, the period of having the membership of ISP, and frequencies of access to the Network covariates studied.

6.3 Limitations

The limitations of this research are; some respondents do not have an Internet account with the commercial Internet Service Providers in Thailand, or some have an Internet account with their educational institutions or their companies. Therefore, all of this group cannot do this research. Moreover, some respondents are not willing to answer the questionnaires, because they consider that it is a waste of their time or they are in a hurry.

6.4 Benefits to Managers

This research has demonstrated the correlational relationship between certain variables that influence customer evaluations in product/service encounters. Those variables include Cost/Price, Convenience/Location and Service/Product Quality. In addition, certain socio-economic variables, e.g. Income, Education, Job Status, have been shown to act as covariates of the three variables mentioned previously. Management can benefit from this study by focusing its attention on the controllable elements at the points of interaction between the company and its customers, and ultimately affect perceptions of product/service quality, repeat business behavior and, most importantly, customer satisfaction.

6.5 Implication for Further Research

It is recommended that further studies be done to examine the factors that influence the overall level of satisfaction of customers in other Internet environments. Also, further research on methods of measuring personal satisfaction are recommended. Although the independent variables chosen were expected to explain a significant portion of the dependent variable (overall customer satisfaction), it may be that there are other basic factors that consumers take into consideration when judging their level of satisfaction with an Internet experience.

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This study investigated 6 factors that influence overall customer satisfaction in an Internet context, but the actual number of factors and conceptual dimensions, which exist that influence overall customer satisfaction may be much greater. Further research should seek to identify those other factors and their influence on customer satisfaction. With further research, possibly more could be understood about what other factors cause variations in the overall level of customer satisfaction. Finally, this research study geographically was done only in Bangkok areas, because it is a big city where most Internet users are, but it is by no means a representative of the whole country. Then, further study about Customer Satisfaction for an ISP in Thailand should be done with ISP in other provinces, such as Chiang Mai, Chonburi, Rayong, Phuket, etc.





APPENDIX A
A SURVEY INSTRUMENT

Assumption University

I am a graduate student of Assumption University. Now I am conducting a marketing research on Customer Satisfaction Factors for an Internet Service Provider, which is in partial fulfillment of the requirements for the degree of Master of Science in Computer and Engineering Management.

I would like to ask for your kind cooperation in completing the questionnaires for a few minutes. Your responses to these questionnaires will be kept strictly confidential.

Thank you for your cooperation.



THAILAND INTERNET SERVICE PROVIDER

CUSTOMER SATISFACTION STUDY

Part I

About Yourself: Please check the one number that represents the most appropriate response for each of the following items. Remember that all your responses will remain confidential.

1. Gender

- Male
- Female

2. Age:

- Under 15
- 15-20
- 21-25
- 26-30
- Over 30

3. Employment Status:

- Student
- Employment
- Unemployment

Education:

- High School
- Vocational Degree
- Bachelor's Degree
- Master's Degree
- Over Master's Degree

St. Gabriel's Library

5. Income:

- Less than 10,000 Bahts
- 10,001-30,000 Bahts
- 30,001-50,000 Bahts
- Over 50,000 Bahts

6. Years of Internet playing experience:

- Less than 1 year
- 1-2 years
- 2.1-3 years
- More than 3 years

7. Frequency of your access to the Internet Connection:

- Under 5 hours a week
- 5-10 hours a week
- 11-15 hours a week
- 16-20 hours a week
- More than 20 hours a week

8. Period of being the member with your present ISP:

- Under 3 months
- 4-6 months
- 7-9 months
- 10-12 months
- More than 12 months

9. The most Time you access the Network:

- 6.00 to 12.00
- 12.00 to 18.00
- 18.00 to 24.00
- 24.00 to 6.00

10. Modem speed you can connect with your ISP:

- Under 14.4 Kpbs.
- 14.4 Kpbs.
- 28.8 Kpbs.
- 33.6 Kpbs.
- More than 33.6 Kpbs.

11. Percentage you are successful to connect to your ISP's system:

- Less than 50%
- 50% -79%
- 80%-99%
- 100%

12. Opinion about your ISP's speed and response time:

- Very fast
- Fast
- Slow
- Very Poor

13. Criteria for selecting an ISP

- Good sales promotion
- Excellent service of the Customer Service
- Suggestion from others
- The reputation of the company
- Internet Connection rates are reasonable

14. Usual Internet program in use:

- E-mail
- World Wide Web
- Chat/IRC
- Newsgroup
- FTP

Part II

About Your Priorities: Please rank the following items in importance to you as a Internet consumer. On the line next to each item, write the number 1,2,3,4,5, or 6. That is, a 6 is most important, a 5 is of next importance, and so on. Use each number only once.

- | | |
|--------------------------------------|--------------------------------|
| --- Cost of Internet Connection Fees | --- Variety of payment |
| --- Speed of Data transfer | --- Ease of network connection |
| --- Quality of Customer Support | --- ISP membership condition |

Part III

About Your Consumer Satisfaction Levels: Please indicate the level of your satisfaction with each of the items below. Circle the one number that best describes your feelings of satisfaction. 7 = Strongly Satisfied, 6 = Satisfied, 5 = Slightly Satisfied, 4 = Neutral, 3 = Slightly Dissatisfied, 2 = Dissatisfied, 1 = Strongly Dissatisfied.

	Strongly Dissatisfied			Neutral			Strongly Satisfied
1. Cost of Internet Connection fees	1	2	3	4	5	6	7
2. Ease of network connection	1	2	3	4	5	6	7
3. ISP membership condition	1	2	3	4	5	6	7
4.Speed of Data Transfer	1	2	3	4	5	6	7
5. Quality of Customer support	1	2	3	4	5	6	7
6. Variety of billing payment	1	2	3	4	5	6	7
7. Overall satisfaction with ISP	1	2	3	4	5	6	7

Part IV

About Your product/service Quality Ratings: How would you rate each of the items

below. Circle the one number that best describes your quality rating. 7 = Excellent, 6 =

Very Good, 5 = Good, 4 = Average, 3 = Fair, 2 = Poor, 1 = Very Poor.

	Very Poor			Average		Excellent	
1. Speed of Data Transfer	1	2	3	4	5	6	7
2. Ease of network connection	1	2	3	4	5	6	7
3. ISP's membership condition	1	2	3	4	5	6	7
4. Quality of customer support	1	2	3	4	5	6	7
5. Overall quality of ISP	1	2	3	4	5	6	7
	Very Expensive			Average		Very Inexpensive	
6. Cost of Internet Connection	1	2	3	4	5	6	7

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