

**Communication Behavior with Internet Use in
a Wired Religious Community among APNTS
Residential Students**

A Thesis

Presented to the Faculty of
Asia-Pacific Nazarene Theological Seminary

In Partial Fulfillment of the Degree of
Master of Arts
in Christian Communication

by
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Taytay – Rizal
Philippines
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**Communication Behavior with Internet Use
In a Wired Religious Community among
APNTS Residential Students**

For the Degree

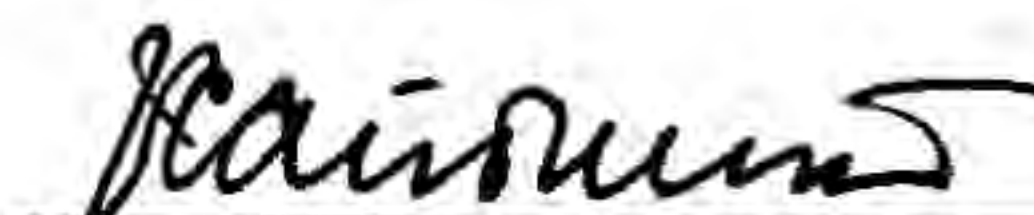
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To those who want to

“Be a HISTORY MAKER in HIS Story”

*And let steadfastness have its full effect,
that you may be perfect and complete, lacking in nothing.*

James 1:4 (ESV)

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YOU can be a **HISTORY MAKER** in **HIS** story!

ABSTRACT

As one of the modern communication tools, the Internet has changed our society and communication rapidly. The significant growth of the Internet use is more than the population growth, which means that there is a possibility that everyone will get connected to the Internet. APNTS as an educational institution provides an Internet connection inside the campus side. This is an opportunity to conduct research upon how the Internet use predicts communication behavior patterns among the resident students of the APNTS community. This study will help us to find out the phenomenon and communication behavior resulting from the Internet use among the resident students in the APNTS community.

Questionnaires were distributed to all the residential students through help of resident assistants. There were 42 (forty two) respondents out of the 44 (forty four) respondents who returned the questionnaires. The questions were asked based on the Combined Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB) as the theoretical framework.

The variables used as a model of measuring this research cover the following areas: Background of the respondent (Demographic Data); Background of the Internet Use; Perceived Usefulness (PU) about using the Internet; Perceived Ease Of Use (PEOU) about using the Internet; Subjective Norm (SN) include: Social Influence and Facilitating Condition about using the Internet; Self-Efficacy (Perceived Behavior Control) about using the Internet; Attitude Toward Behavior about using the Internet; How To Make Full Use (Behavioral Intention) about using the Internet; Actual Behavior (AB) about using the Internet; and an

Open Ended question which allowed respondents to write anything that relates to Internet use.

This research applied the Pearson Correlation Co-efficient tests for the statistical treatment of the data. The Cronbach' alpha test was applied to reliability and may be used to describe the reliability. Bivariate Correlation Test to determine Pearson Correlation Co-efficient (r). The new variables were made in a group in each section of the questions. A standardized beta (β) co-efficient, R-square (r^2) and adjusted R-square are found by running multiple variable of linear regression. The result is used to test the null hypothesis.

This research gives these conclusions: The main hypothesis is rejected because there is moderate correlation between the Internet users' background and actual use; then there is low correlation between actual use and future self-predict of Internet use. With sub null hypothesis tested: The first sub null – hypothesis is rejected. The second sub – null hypothesis number four is partially accepted. It is because there are still very small correlations but it does not show any linear relationship in between. The third sub null – hypothesis is rejected. And the fourth sub null – hypothesis is rejected. There are 3 (three) main issues for the open ended question in this research: 1) The Internet is a very useful tool, 2) The warning about the Internet use and 3) The Internet connection and facilities in APNTS.

Generally, the users' background of Internet use will have positive correlation with the actual use of Internet. And the actual use of the Internet will have positive correlation with the future self-prediction behavior. This is also true even in the religious community.

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CHAPTER ONE

THE PROBLEM AND ITS BACKGROUND

Introduction

The invention of new technology has brought significant change to human life. After the first public demonstration of television in 1927, the development of the first computer with a vacuum tube, called (Electronic Numerical Integrator and Computer) ENIAC was completed in 1946. Following that, IBM developed the first digital electronic in 1950.¹

After the invention of computer, human beings started to think how to connect with each other. In 1960, J.C.R. Licklider began with the ideas in his paper, entitled *Man-Computer Symbiosis*, and stated:

The picture readily enlarges itself into a network of such centers, connected to one another by wide-band communication lines and to individual users by leased-wire services. In such a system, the speed of the computers would be balanced, and the cost of the gigantic memories and the sophisticated programs would be divided by the number of users.²

Robert Taylor, a head of information processing in Advanced Research Projects Agency (ARPA), intended to realize Licklider's ideas of an interconnected networking system. APRANET became the technical core of Internet development until now.³ In 1990, Berners-Lee had built all the tools

¹ Lynne Schafer Gross, *Telecommunications: An Introduction to Electronic Media*. (Madison: Brown & Benchmark Publisher, 1995), 176.

² *In Memoriam: J. C. R. Licklider 1915-1990*, (article on-line); available from <http://memex.org/licklider.pdf>; Internet: accessed 08 August 2007.

³ *APRANET – The First Internet*, (article on-line); available from http://www.livinginternet.com/i/ii_arpanet.htm; Internet: accessed 08 August 2007.

necessary for a working Web: the first web browser, World Wide Web, (which was also a web editor), the first Web server (info.cern.ch), and the first web pages, which were the project post of itself.⁴

As one of the modern communication tools, the Internet has changed our society and communication rapidly. According to the Internet World Stats, the Internet users in June 2007 were 1,173,109,925 out of the 6,574,666,417 world population, and 37% of users are in Asia.⁵ The significant growth of the Internet use is more than the population growth, which means that there is a possibility that everyone will get connected to the Internet.

The Oxford Internet Survey (OxIS) reports the impact of the Internet as:

- 1) Changing information habits and Internet practices: the use of Internet for seeking information is established and it is often the first port of call for most types of information sought;
- 2) Internet and social interaction: plays an important role in maintaining social interaction and supplementing other form of sociability;
- 3) Use of time: the Internet is seen to be beneficial to time-pressured lives;
- 4) Centrality of the Internet: over seven in ten users of the Internet (72%) said that the Internet has made their life better;
- 5) Negative experiences and concerns: over half (55%) of all users said they have had at least one bad experience in the previous year and 26% have had more than one;
- 6) Privacy: there is a sense that personal privacy can be compromised by going online (54% agree), and many feel the Internet allows access to personal information without explicit permission (45%);
- 7) Freedom of expression and norms of use: it is

⁴ Ben Segal, *A Short History of Internet Protocols at CERN*, (article on-line); available from <http://wwwpdp.web.cern.ch/wwwpdp/ns/ben/TCPHIST.html>; Internet: accessed 08 August 2007.

⁵ *Internet World Stats Data* (on-line) available from: <http://www.internetworldstats.com/stats.htm>; Internet: accessed 08 August 2007.

generally accepted that the Internet is a space that allows free expression.⁶ From this data, researcher can predict that there will be significant communication behavior toward Internet use in human life.

The researcher intended to conduct the research among a religious community. Religious groups such as Catholic and Christian are also into the Internet World. Pope John Paul II has declared that the Internet can be used for the evangelism.⁷ So, even in the religious community, the Internet has emerged and created new phenomena. This challenges us since people know that the Church must not ignore the effects of social fragmentation and information overload. It challenges us in the ways and methods of communicating the Gospel message.⁸

As an educational institution among the Wesleyan holiness tradition, Asia-Pacific Nazarene Theological Seminary (APNTS) has provided Internet connection through each room in the dormitories and apartments inside the campus site since 2006. Before that, the school had an Internet connection only for the office and public use in the library and student centre. So, if students needed to use an Internet connection, they had to go to these places and had a limited use amount of time on the unit. The connection provided aside from “public” Internet stations such as the library and student centre gives more opportunity to students for the Internet use. The Internet connection has been provided in order to help students in their study and to improve their lives.

⁶ The Oxford Internet Survey (OxIS) Report 2005: *The Internet in Britain*. Oxford Internet Institute, University of Oxford, 6 - 7.

⁷ Flaviano Villanueva, svd, An Image of the Filipino Youth in *E-generation: The Communication of Young People in Asia – A Concern of the Church*, ed. Franz-Josef Eilers, svd. (Manila: Logos Publications, Inc., 2003), 40.

⁸ Shamsher S. Bahadur, Communicative Theology in Faith and Practice in *Case Study in Christian Communication in an Asian Context*, ed. Ross W. James. (Manila: OMF Literature Inc., 1989: reprint 1996), 21.

The behavior of students with the Internet use can be predicted. It is shown that not every student previously had been through the Internet connected experience since the students come from different countries and the Internet use backgrounds. The Internet use will predict some communication behavior patterns in APNTS society and community.

APNTS is a small community with approximately 100 (hundred) students entering into the digital era. This is an opportunity to conduct research upon how the Internet use predicts communication behavior patterns among the resident students of the APNTS community. This study will also help us to find out the phenomenon and communication behavior resulting from the Internet use among the resident students in the APNTS community.

Theoretical Framework

Changing of technology can change people's attitudes and behaviors. It is related to individual users' beliefs, attitudes, and behavioral intentions toward Internet use.⁹ Media technology shapes how we, as human beings in a society, think, feel, act, and how societies operate as we move from one technological age to another (Tribal – Literate – Print – Electronic).¹⁰

In this study, the researcher uses Combined Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB) theory as the theoretical framework. The Combined TAM and TPB was first introduced by Taylor & Todd

⁹ Heshan Sun and Ping Zhang, "A Methodological Analysis of User Technology Acceptance," in *Proceedings of the 37th Hawaii International Conference on System Sciences-2004*, 1.

¹⁰ Em Griffin, *A First Look at Communication Theory*, 5th ed. (Boston: McGraw Hill Higher Education, 2003), 342.

in 1995.¹¹ The Technology Acceptance Model (TAM) was first introduced by Davis in 1986 and continues to be the most widely accepted theoretical model in the Information System field. It proposes that applications usage and adoption can be predicted based upon the factors of Perceived Ease Of Use (PEOU) and Perceived Usefulness (PU). The TAM is based on Fishbein and Ajzen's Theory of Reasoned Action (TRA).¹²

The Theory of Planned Behavior (TPB) is proposed as an extension of the Theory of Reasoned Action (which was related to voluntary behavior), because of the limitations of the Theory of Reasoned Action (TRA) in dealing with behaviors over which people have incomplete volitional control. The TPB introduced a third independent determinant of intention, Perceived Behavior Control (PBC). This was introduced by Ajzen in 1985.¹³

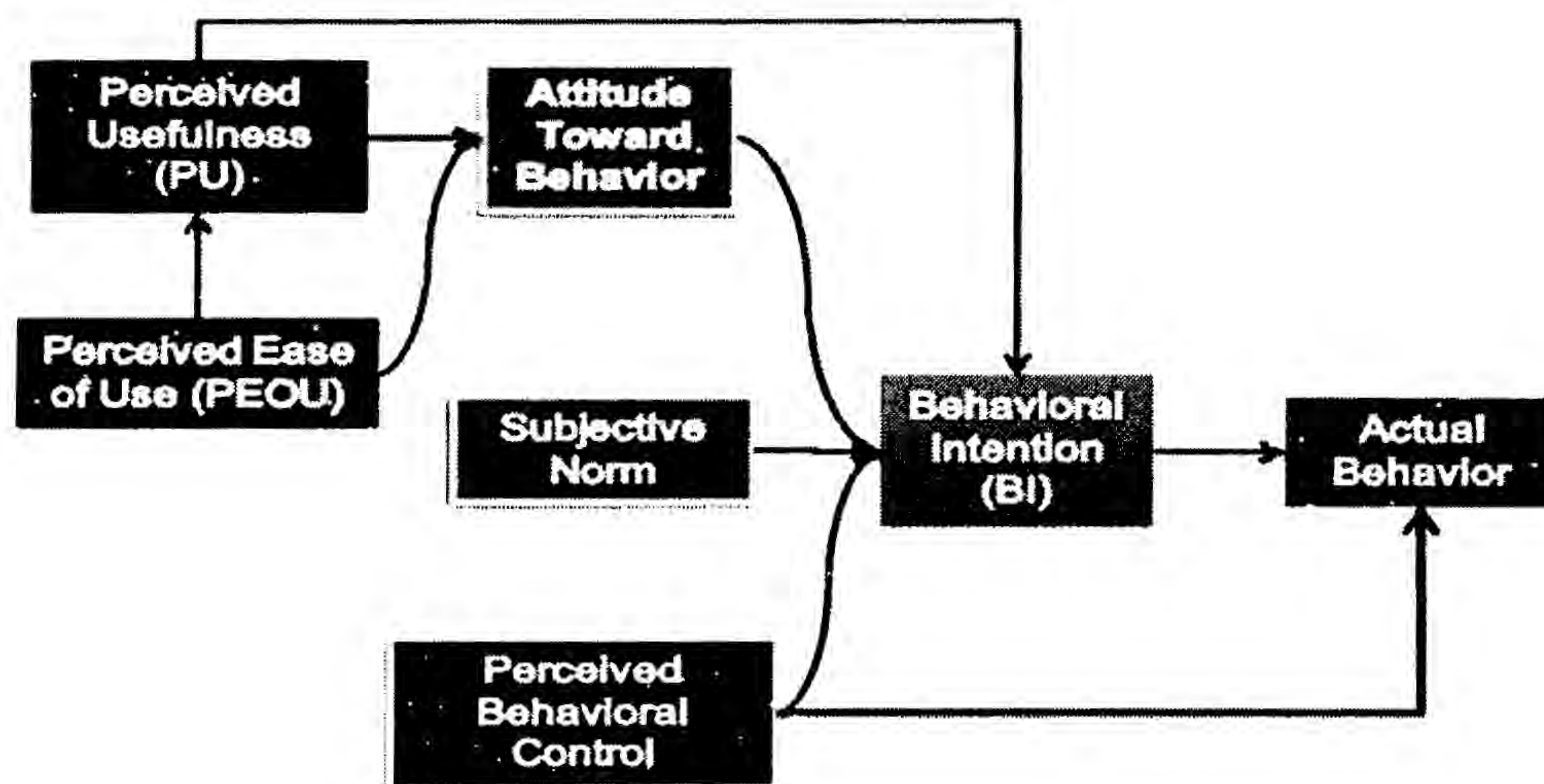


Figure 1.1 Augmented TAM (C-TAM-TPB) adapted from Taylor & Todd.¹⁴

¹¹ Napaporn Kripanont, "Examining A Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools" (Ph.D. diss., Victoria University, 2007), 57.

¹² Paul Vin-Cent Chang, "The Validity of an Extended Technology Acceptance Model (TAM) for Predicting Intranet/Portal Usage" (Master' thesis, University of North Carolina at Chapel Hill, 2004), 6.

¹³ Kripanont, "Examining A Technology", 50.

¹⁴ Kripanont, "Examining A Technology", 57.

The theory mentions how attitudes predict planned, deliberative behavior. According to this theory the best predictors of these behaviors are the person's specific attitudes, his or her subjective norms, and the perceived control over a behavior.¹⁵

Taylor and Todd suggested that augmented TAM provides an adequate model of IT usage for both experienced and inexperienced users, accounting for a proportion of the variance in intention and behavior. For both groups, all direct determinants of intention, except attitude, were significant. Therefore, the augmented TAM can be used to predict subsequent usage behavior prior to users having any experience with a system (technology). This suggests that this model can be used to predict usage for people who have never used the technology before as well as the capacity to predict usage for people who have used the technology or for people who are familiar with the technology. So, IT usage models may be employed diagnostically prior to implementation or after implementation both with inexperienced and experienced users.¹⁶

This research conducts a survey within a group of resident students based on Combined Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB) theory. It was conducted by gathering questionnaire data from the resident students as participants about their background of knowledge, attitude that resulting behavior toward Internet use, and future intention of Internet use.

¹⁵ Aronson, Wilson and Akert, *Social Psychology*, (presentation on-line); available from http://wps.prenhall.com/hss_aronson_socpsych_5/0,8855,1223905-,00.html; Internet: accessed 02 May 2007, np.

¹⁶ Kripanont, "Examining A Technology", 57-8.

Conceptual Framework

This study was conducted toward Internet use and behavior change in a community. In terms of behavior measuring, technology acceptance can be measured by actual technology use (usage behavior) as well as by intention to use (behavior intention).¹⁷ In this study, the researcher has included individual reactions using the Internet, the actual use of the Internet, and the intentions to use the Internet in the future.

The conceptual framework of this research follows Kripanont's basic concept, which was adapted from Venkatesh's user acceptance model. The concept suggests that individual reactions to use the Internet may influence actual usage of the Internet, and consequently, actual usage of the Internet might influence intentions to use the technology. It is expected that a research model, based on this concept after some tests and modifications (if necessary), could have power in explaining usage behavior and could predict future usage based on a user's intention to use the Internet.



Figure 1.2 Conceptual Framework adapted from Venkatesh.¹⁸

¹⁷ Kripanont, "Examining A Technology", 80.

¹⁸ Kripanont, "Examining A Technology", 83.

Problem Statement

The researcher's problem statement for this research is:

What are the communications behaviors in correlation between the Internet users' background and the actual use and future self-predict use of the Internet among the residential students in the APNTS community?

The researcher will have several *sub-problems*:

1. What is the demographic information of the residential students in the APNTS community?
 - 1.1. Age
 - 1.2. Gender
 - 1.3. Educational Background
 - 1.4. Year of study in APNTS
2. What are the backgrounds of the Internet use of the residential students in the APNTS community?
 - 2.1 Year of the Internet use
 - 2.2 Self-assessment of the Internet use
 - 2.3 The Intention of the Internet use
 - 2.4 Service used for the Internet use
 - 2.5 Place for the Internet access before coming to APNTS
3. What are the correlations between perceived the usefulness, ease of use toward the Internet use and users' attitude toward behavior among the residential students in the APNTS community?
4. What are the correlations between subjective norms such as: social influence and facilitating condition, self-efficacy toward the Internet usage,

perceived of the Internet use and attitude toward behavior about using the Internet among the residential students in the APNTS community?

5. What are the correlations between making full use of the Internet (Behavioral Intention) in the work and actual behavior among the residential students in the APNTS community?
6. What are the correlations between the actual behaviors and future self-prediction of the Internet use among the residential students in the APNTS community?

Null Hypothesis (H₀)

There is no positive correlation of the communications behaviors between Internet users' background and the actual use and future self-predictive use of the Internet among the residential students in the APNTS community.

With sub-Null Hypothesis:

1. There is no positive correlation between perceived usefulness, ease of use toward the Internet use, and the users' attitude toward behavior among the residential students in the APNTS community.
2. There is no positive correlation between the subjective norms such as: social influence and facilitating condition, self-efficacy toward the Internet usage, perceived of usefulness and behavior intension among the residential students in the APNTS community.

3. There is no positive correlation between making full use of the Internet (Behavioral Intention) in the work and actual behavior among the residential students in the APNTS community.
4. There is no positive correlation between the actual behaviors and future self-prediction of the Internet use among the residential students in the APNTS community.

Significance of the Study

Since the Internet use brings human beings to the changed of communication behavior, the researcher believes that this study has explored that the Internet use among the residential students in the APNTS community and how students prepare themselves into the technology era and the new digital system. This study also gives an understanding about how individual as user belief having the attitudes and the behavioral intention toward Internet use. It examines how the Internet impacts students' life and predicts their future intentions of their behavior concerning usage of the Internet.

The communication attitudes of resident students help us to understand how seminarians use the Internet. This has brought out the acceptance of technology, how human interact with technology, and a general picture of a religious group community being changed by the Internet use.

Assumptions

The researcher assumes that the Internet use is becoming a future trend in communication among religious groups. The Internet use will be the most

demanding use of technology. The development and infrastructure for Internet connection lead to the tendency that the APNTS student will use Internet as part of their study. APNTS started the online courses in 2007-2008 academic year; as part of the educational system development. This draws the students to use the Internet. It also means that sooner or later, they will experience Internet use.

Definition of Terms

Asia-Pacific Nazarene Theological Seminary (APNTS) – A graduate level institution of the Church of the Nazarene, exists to prepare men and women for excellence in the task of the Christian ministries in Asia and the Pacific.¹⁹

Communication behaviors – A predicted outcome from attitudes in resulting of the using internet as Fishbein and Ajzen stated in their theory.²⁰

Intention to use the Internet – Users' self-prediction about using the Internet in the future as continuation of their past and actual use of the Internet.

Seminarian – A student who studies in the seminary.

Religious Community – A group of people who has same religion or belief and develops an agreement with each other in value, norm and belief.

Scope, Delimitations and Limitations of the Study

The study focused on finding out the attitudes of residential students who could strongly predict their behavior patterns in the APNTS community for the 2007 – 2008 academic year. The use of the Internet among the residential students and how it changes their attitudes contrast to the length of stay. The

¹⁹ APNTS Catalogue 2003-2007, Mission Statement, 3.

²⁰ Aronson, Wilson and Akert, *Social Psychology*, np.

researcher has included social and facilitating factors which affect communication attitudes and provide recommendations to the APNTS community related to the findings. As the study is limited to the Internet use of the residential students, the researcher did not include the non-residential students as well as resident faculty members.

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND STUDIES

The Internet is the fastest of diffusing Information and Communication Technology (ICT).²¹ In its rapid diffusion, the Internet is repeating in a different and somewhat compressed form a process witnessed in other communication technologies like telephones, radio, and television. At first, access to the new technology is restricted to an elite (defined either by wealth, institutional location, or both), and the great distinction is between haves and have-nots. Gradually, penetration increases, reducing the gap in access between rich and poor, urban and rural dwellers, old and young, the well educated and the unschooled. As access diffuses to parts of the public who were initially excluded, dimensions related to *quality of use* become important bases upon what benefits of the technology are stratified.²² Wilson, a researcher from Internet Policy Institute, stated:

The expansion of the term “the digital divide” to “the global digital divide” points to differences in Internet access and use between countries, as well as within countries. Such inequalities have led to “a substantial asymmetry in the distribution and effective use of information and communication resources between two or more populations”.²³

²¹ Nikhilesh Dholakia and others, eds., *Internet Diffusion*, (paper on-line) available from: http://ritim.cba.uri.edu/wp2003/pdf_format/Wiley-Encycl-Internet-Diffusion-v12.pdf, Internet accessed; 9 October 2007, 5.

²² Paul DiMaggio and Eszter Hargittai, *From the 'Digital Divide' to 'Digital Inequality': Studying Internet Use As Penetration Increases*, (Sociology Dept., Princeton University, 2001) available from: http://www.webuse.umd.edu/webshop/resources/Dimaggio_Digital_Divide.pdf, Internet accessed; 20 September 2007, 4.

²³ Wenhong Chen, Jeffrey Boase, and Barry Wellman, *The Global Villagers: Comparing Internet Users and Uses around the World*, (Dept. of Sociology, University of Toronto), available from: <http://www.chass.utoronto.ca/~wellman/publications/villagers/gdd13-final.PDF>, Internet accessed; 20 September 2007, 5.

The Internet, as it has penetrated to our society, has changed from “digital divide” to “global digital divide” or “digital inequality”. There is no “wall” that separates people from being connected through the Internet. It is possible that someday all people will be connected to the Internet in the global digital world.

In the Internet world, there is no certain statistic data that shows how long lasting are Internet relationships. Walter explained how one study shows that people are more apt to participate actively in those on-line groups when they perceive them to be long-lasting.²⁴ A study has been done in the Philippines about the Cyberlove – Internet Initiated Relationship by Teresa DeLuna.²⁵ The objectives of the study are to describe participants who have an on-line romantic relationship and how they perceive upon developing their relationship.

There are some interesting findings from this research: there are some couples that started their relationship online who said that the Internet as communication setting that can support, maintain and sustain romantic relationship; the duration of the engagement relatively faster than traditional face to face romance. After they were engaged, online communication gradually lessened switching to more offline; most of the “online” couples started their romance with several similarities such as: social demographic, physical proximity, physical attractiveness, similar attitudes, competence and self-disclosure. The last more interesting phenomena that she found about the Filipinos are they are

²⁴ Barry Wellman and Milena Gulla, *Net Surfers Don't Ride Alone: Virtual Communities as Communities*. (paper online), available from <http://www.chass.utoronto.ca/~wellman/publications/netsurfers/netsurfers.pdf#search=%22cyberspace%20community%20in%20pdf%22>; Internet: accessed 02 October 2006, 11.

²⁵ Teresa Paula Sangil-DeLuna, “Cyberlove: A study on the Development of Internet – Initiated Relationship toward ‘Real Time’ Romances” (Master’ thesis, University of the Philippines, 2001), 122-32.

still doubtful about the effectiveness of online communication in maintaining and sustaining romantic relationships.

Another study that supports DeLuna' findings was done by Billedo. She found that it is possible to start romantic relationships through cyberspace and end in the "real" world.²⁶ This study supports that there is an online community just like our real community in which people can have "real" activity. Billedo concluded that the physical aspect of an interaction was found to be more important in online romantic relationship than in online friendship. Intimacy, the essential component of friendship, could be established online.

The Internet has brought a new phenomenon to human life. As we open our lives to the Internet world and get connected to other parts of the world, we will find a "new" thing. This "real" experience will totally changes our lives as we continue to be more involved in it.

Internet Usage

Internet usage has become an interesting phenomena that we have in our society. This is not a surprise anymore because as the Internet connection grows, so users grow. In the research about the global Internet users done by Chen et al., they examined that the nature of Internet users and uses is related to a variety of social and individual characteristics, including gender, age, language spoken at home, education, marital status, household size, employment status,

²⁶ Cherrie Joy F. Billedo, "The Formation of Interpersonal Attraction and Romantic Relationships on Internet Relay Chat: An Exploratory Study" (Master' thesis, University of the Philippines, 2004), 174-92.

use of more conventional media (e.g. newspapers/ magazines, and television), and the place of the Internet access.²⁷

There is much research done in the area of the Internet users. Users have their own reasons to use the Internet. A survey conducted by the Oxford Internet Institute in 2005 presents the uses of the Internet.²⁸ The findings include: 1) Most of the uses of the Internet (75% and over) are communications related (principally email), but also for the collection of information in specific areas, such as information or news; 2) The second quartile (50 – 75%) focuses more on uses associated with particular interests or geographical proximity (such as sport or news); just over half the sample say they also use instant messaging; 3) The next quartile (25 – 50%) is used for more specialist information (such as financial transactions or look for jobs), as well as downloading music and other activities. Chat rooms fall within this quartile; 4) The least frequently mentioned uses (in bottom quartile, 0 – 25%) are particular interests such as visiting sex sites, gambling and visiting religious sites but also specialist activities such as researching the family tree.

The use of the Internet is not only a trend in the urban areas, but also in the rural areas. Kavita Karan, a researcher from Nanyang Technology University, conducted research in the use of the Internet in seven Asian countries shows the growth of cyber communities in rural Asia. She found that the rural segments in Asia have taken tentative steps to transform themselves into cyber-communities.²⁹ She mentioned that in this context, the understanding of the countries becomes significant in the terms of the impact of information

²⁷ Chen et al., *The Global Villagers*, 14.

²⁸ *The Oxford Internet Survey (OxIS) Report 2005*, 5.

²⁹ Kavita Karan, ed., *Cyber Communities in Rural Asia: A Study in Seven Asian Countries*. (Singapore: Marshall Cavendish Academic, 2004), 3.

technology; the information technology is having an impact in building epistemic societies, particularly the rural sectors where the adaptation and use of new technologies are not without breaks, as experienced in Asian countries that have diverse multi-cultural profiles.

An attitude of Internet users is also reflected in the personality of the user. Lomax et al. conducted a research on the Personality and Internet usage and found that personality may explain how and why individuals use the web.³⁰ In their research, using Myers-Briggs Type Indicator (MBTI), they show that different type of personality perceive the Internet in different ways, and behave differently using it.

Gender differences also bring an interesting phenomenon through Internet use. In the research that has been conducted, men dominate the use of the Internet compared to women. Research conducted by Robert Kraut et al. found that females were heavier email users than males, even though they were lighter users of the Web.³¹ Kraut's research also shows a strong preference for interpersonal communication to information and entertainment in people's first year of using the Internet at home. While Chen stated describes the National Geographic survey respondents on the Internet shows them to be predominantly male (54 percent), over 30 (mean=37 years), speak English at home (75 percent), and usually access the Internet from home (63 percent).³²

³⁰ Wendy Lomax and others, eds., *Personality and Internet Usage: Too Shy to Surf?*, (paper on-line) available on-line from: <http://www.kingston.ac.uk/~ku03468/docs/Personality%20and%20Internet%20Usage%20Too%20Shy%20to%20Surf.pdf>. Internet: accessed 20 September 2007, 2.

³¹ Robert Kraut and others, eds., "Information and Communication: Alternative Uses of the Internet in Households," *Information System Research* 10, no. 4 (December 1999): 299.

³² Chen et al., *The Global Villagers*, 15.

Lindlof and Taylor, in exploring computer mediated communication through the Internet, suggested some forms that have been developed, such as *E-mail*. In e-mail, users send messages to each other for reading, storing and printing. Another is *Bulletin Board System (BBS)*: Users of BBS connect to computers serving as hubs for particular, special interest conferencing or “newsgroups”. Users then post messages to a single address, and read and respond to messages posted by others. Exchanges are asynchronous. Another is *Internet Relay Chat (IRC)*: Chat users employ special software to access dedicated servers that allow multiple, synchronous, text-based conversations to be conducted in select, thematically organized channels or room. IRC is considered to be more synchronous than e-mail. Another, *Multiple User Domains (MUDs)*, allows users to create and perform characters, interact with other character and objects, and negotiate programmed plots by executing complex keyboard commands. Finally, the *World Wide Web (Web Pages)* is a portion of the Internet devoted to posting, navigating, and interacting with multimedia texts known as *Web pages*.³³

How do people get Internet access? This question is related to the observation about why people choose to have Internet access. EPIC or Experiences of People the Internet and their Community, has done some research about it.³⁴ The research found that most of the people connect to Internet from their home. This was based on whether the home had Internet access and whether a household member periodically used the Internet outside

³³ Thomas R. Lindlof and Bryan C. Taylor, *Qualitative Communication Research Methods*, 2nd ed. (Thousand Oaks: Sage Publications, 2002), 250-52.

³⁴ Daniel Dunlap and others, eds., *Delving Deeper into Access: Marginal Internet Usage in a Local Community*, (Center for Human-Computer Interaction, Virginia Tech) available on-line from: <http://cscl.ist.psu.edu/public/users/wschafer/Homepage/Docs/DelvingDeeperIntoAccess.pdf>. Internet: accessed 20 September 2007, 3.

of the home, such as at work, school, or the library. The term "super user" was adopted for the households that used the Internet in both locations. These homes had a computer connected to the Internet, and at least one person used the Internet somewhere else. "Household user" refers to the households that only used the Internet in their home. Similarly, "non-household user" corresponds to the households that did not have an Internet connection, but accessed the Internet other places.

Dunlap, in his group research, classified marginal Internet users (household user and non-household users) into several groups based on their different set of beliefs and attitudes about the Internet and different practices related to accessing information and communicating through the Internet.³⁵

The groups include: *Proxy Use*: The friends and family of the user went online and performed a task for them, such as Internet searching, emailing, shopping, or even posting on the Web. These are tasks the user would not otherwise have done. *Second-Hand Use*: Second-hand exchange is generally initiated by the user who receives an email or gets information from the Web and then distributes it. Examples are: the church's missionaries in Africa through second-hand use. The church prints out each email they receive and distributes it to the congregation. *Spectator*: They watched as friends and family showed them things on the Internet, and they listened to and looked after children playing games and navigating websites. *Net Dropouts*: Those who had access at some point and then lost or got rid of it typically because of the loss of a computer due to change in residence, change in job, or economic reasons. *InterNots*: computer

³⁵ Dunlap et al., *Delving Deeper into Access*, 10-2.

users who do not have Internet access. *WebNots*: those who use computers and email but do not access the Web (use Web browsers).

The usage of the Internet has widely impacted our lives. Internet usage goes from the “unwired” community to the “wired” community. In the progression of time, people will tend to find how to get connect to the internet. As they can find the way, the number of Internet users will grow rapidly and significantly worldwide.

Internet Use in Religious Communities

As a community, the church also uses the Internet. Technology brings people into online communities and causes new communities in virtual world. A survey among the church members experience on the web, conducted by Pew Internet and American Life, has shown that 83% of those responding to our survey say that their use of the Internet has helped congregational life – 25% say it has helped a great deal. Eighty three percent say the use of email by ministers, staff, and congregation members has helped the spiritual life of the congregation to some extent – 35% say it has helped a great deal. Ninety one percent say email has helped congregation members and members of the staff stay more in touch with each other – 51% say it has helped a great deal. Sixty three percent say an e-mail has helped the congregation connect at least a bit more to the surrounding community – 17% say it has helped a lot.³⁶

A study about the Youth Culture in Korea, conducted by the Bishops Conference, stated that even in the Church, a new cyberspace culture is

³⁶ Pew Internet and American Life Project, *Wired Churches, Wires Temples: Taking Congregations and Missions into Cyberspace*, (Washington: Pew Internet and America Life Project, 2000), 2.

developing.³⁷ The new cyberspace culture includes e-commerce shopping malls, online games, PC rooms, cyber stock trading, Internet broadcasting, cyber communities, and free Internet phones and has brought a landmark change in daily life and leisure activities. The young people from YCS East Asian were asked about what they were going to tell their bishop; one finding mentioned that they had at least three concerns about Information Technology (IT): 1) IT is a very useful tool for help in our studies, 2) IT is also very useful in communicating with our friends far and near, and 3) Because of the power of IT to influence people through its persuasive advertisements, attractive entertainment programmes and efficient means of communication, many people are taken up with the materialistic values shown so vividly on IT.³⁸

In response to the need of *E-Generations* and the Church's concern for reaching out this generation, the Final Statement of Bishops' Institute for Social Communication (BISCOM IV) has offered this recommendation:

Church leaders must acquire skills in communication, be acquainted with electronic media including Internet and go through awareness programs so that they can journey with young people.³⁹

This means that as a minister, pastors or church leaders cannot just close their eyes to the changes in technology. They have to get in touch with the Internet so they can reach out to the *E-Generations*. Technology can be used as a tool to reach out and fill the needs of people who are involved in. It is important for them to be trained, equipped and become sensitive to the needs of *E-Generations*.

³⁷ Min-Soo, Kim, *Young People Communicating: Experience of a Parish Priest in E-generation*, 99.

³⁸ Manoj Matthew, 'Young People's Expectation and Demands on the Communication of Bishops' in *E-generation*, 120-1.

³⁹ Franz-Josef Eilers, svd. ed., *E-generation: The Communication of Young People in Asia – A Concern of the Church*, (Manila: Logos Publication, Inc., 2003), 161.

The Behavior of Internet Users

The Internet has dramatically changed the world in which we live. The Internet has also created an entire new world, a global community, in which anyone who logs on can pose as anyone or do just about anything they desire.⁴⁰ According to a report by i-SAFE America, the Internet has changed the lives of the children. Parents provide their children with a computer and Internet access. Many have the perception that the computer is a tool that helps make their kids smarter, helps them keep in touch with their friends, and keeps them off the streets and out of trouble. While there is no disputing the advantages this technology affords, the misconception that nothing harmful can happen from using the Internet is still prevalent despite recent cases of child abduction, online identity theft, and lawsuits from downloading of music, movies, and other types of intellectual property.⁴¹

As children get connected to the Internet, their behavior changes. They are facing variety potential dangers while online.⁴² These dangers include, but are not limited to: 1) *Cyber-bullying* as a rapidly growing phenomenon: Kids and teens are using chat rooms, message boards, blogs (personal online journals), and other forms of online communication to create and spread rumors or hurtful information about their peers; 2) *Exposure to inappropriate material online*: Inappropriate material as defined here is adult or child pornographic images, online alcohol and cigarette sales, online hate sites, or other material deemed to

⁴⁰ Carolyn Walpole, Randy Jacobs, and Erik Jorgensen, *Internet Generation Gap: An Analysis of Student Assessments and Parent Surveys from an Active Learning Internet Safety Environment*, i-SAFE America, April 2004, available from: http://www.ipsosinsight.com/act_dsp_view_pdf.aspx?name=mr070705-1.pdf&id=3556, Internet: accessed 20 September 2007, 2.

⁴¹ Walpole et al., *Internet Generation Gap*, 2.

⁴² Walpole et al., *Internet Generation Gap*, 3.

be unfit for viewing by young people; 3) *Identity theft*, America's fastest-growing financial crime: Individuals can have their credit rating destroyed, amass unknown debts, or have criminal records created by identity thieves; 4) *Intellectual property violations*, e.g., free downloading, copying, and distribution of music, movies, and other types of media, while very popular, are nonetheless illegal; 5) *Plagiarism*, or someone using someone else's work as his or her own, is not a new phenomenon. However, the wealth of information available on the World Wide Web, along with the copy and paste ease of use that the Internet affords, has taken plagiarism to an entirely new level in the information era; and 6) *Victimization* by child predators as a result of online communications—chat rooms, message boards, and Instant Messaging.

A study about the Internet culture among young people, done by Wheeler, shows how the Internet has changed the lives of young Kuwaiti.⁴³ She found that the Internet use by youths is creating new forms of communication across gender lines, interrupting traditional social rituals, and giving young people new autonomy in how they run their lives. She stated:

Clearly, the Internet means different things to young Kuwaiti women than it does to their male counterparts. Women are not afforded the same freedoms to talk across gender lines in public, because of the need to preserve their reputations. Thus the Internet is seen as a useful tool, even among women from liberal, cosmopolitan backgrounds. Secondly, while many Kuwaitis are concerned about the potential misuses of the technology, and are vocal about exactly what these misuses constitute; these concerns have not stopped them or their peers from being Internet active. Thirdly, pre-existing value systems help to shape long-term use. Even if experimentation occurs, in the end, many Kuwaitis adjust their Internet usage to be compatible with their upbringing, and the norms and values of their society.⁴⁴

⁴³ Deborah L. Wheeler, "The Internet and Youth Subculture in Kuwait" *Journal Computer Mediated Communication* 8 (2) January 2003 (Journal on-line); available from <http://jcmc.indiana.edu/vol8/issue2/wheeler.html>; Internet; accessed 03 May 2007.

⁴⁴ Wheeler, "The Internet", np.

In many aspects, the Internet has led people into a new way of behaving their live. A study conducted by UCLA Centre for Communication Policy in 2003 reports about how experienced users compared to new users spent their time on the Internet.⁴⁵ It found that very experienced Internet users spent the largest percentage of their time dealing with e-mail, browsing, professional work, news, and schoolwork at levels that have remained relatively constant during all three years of the survey. However, new users also spent the largest percentage of their time with e-mail and browsing, followed by searching for medical information, entertainment information, and professional work.

A study about the Internet use and impact in China gives very interesting phenomena. In China, more internet users (47%) than non-users (31%) believe the Internet will make the world a better place.⁴⁶ In contrast to the UCLA report, people in China “often” or “always” use the Internet to read the news (65.9%), followed by play online games (62%); download music (56.7%) and download entertainment information (53.5%).⁴⁷ As people find the Internet useful, they also change their behavior toward Internet use. Internet users in China spent more time on the Internet (2.73 hours per day) in 2005 than they did two years ago (1.9 hours per day).⁴⁸

In Indonesia, the growth of Internet users increased as the growth of the Internet Kiosks (Warnet) increased. The growth of Warnet erases the exclusive nature of the Internet, which everyone, including those who do not have telephone or computer, can enjoy. The development has made the Internet a

⁴⁵ The UCLA Internet Report, *Surveying the Digital Future* (Los Angeles: UCLA Center for Communication Policy, January 2003), 19.

⁴⁶ Research Center for Social Development, *Surveying Internet Usage and Impact in Five Chinese Cities*, (Beijing: Chinese Academy of Social Science, October 2005), IV.

⁴⁷ Research Center for Social Development, *Surveying*, VI.

⁴⁸ Research Center for Social Development, *Surveying*, V.

lifestyle in Indonesia, creating hope as well as challenges within government and business.⁴⁹ The majority of the users has a PC at home (63.5%) and spend USD \$100 to \$200 (Rp.1 to 2 million) for regular monthly expense.⁵⁰ This may further reflect the time of Internet use, where the vast majority accesses the Internet in office or school hours between 08.00 - 17.00. The next favorable time of Internet use is after-hours between 19.00 - 24.00.

The majority of respondents use the Internet about 2-3 times a week and nearly half (47%) access it for 1-2 hours per visit. The survey also revealed that Internet users are willing to spend USD \$0.5 to \$4 (Rp. 5.000 to Rp. 20.000) per visit.

Distance learning becomes the best format due to the large youth population in Indonesia. Universitas Terbuka (UT) (www.ut.ac.id), established in 1984, has evolved into one of the largest open universities in the world with over 350,000 students.⁵¹ UT is working with Indonesian Internet Kiosk Association to use their facilities for providing Internet-delivered education applications.⁵²

The University of Indonesia, the oldest university in Indonesia, estimates that by 2005, around 30% of its 38,000 students will be involved in some form of distance learning.⁵³ And as they launched the project with World Bank to provide distance learning for public and private sector officials, there will be a call for the central distance-learning at the university campus in Jakarta as well as sub-

⁴⁹ Indonesia Internet Business Community, *Study on "Indonesia Cyber Industry and Market"* (on-line paper), available on-line from: <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN003225.pdf>. Internet: accessed 19 September 2007, 1.

⁵⁰ Indonesia Internet Business Community, *Study on*, 2-3.

⁵¹ Michael Mingos, *Kretek Internet: Indonesia Case Study*, ed. Vanessa Gray (Geneva: International Telecommunication Union, March 2002), 18.

⁵² Mingos, *Kretek Internet*, 18.

⁵³ Mingos, *Kretek Internet*, 18.

centre's at two regional universities. This main centre will feature two classrooms containing 30 computers each and a link to the Internet via VSAT.⁵⁴

According to International Telecommunication Union (ITU) report, over half the Internet users in the Philippines are in Manila, even though the capital only accounts for 13 percent of the total population. Another study that is stated in the ITU report is the estimate that there are 20 million potential Internet users are in the country but less than two million were actually using it.⁵⁵

There is some research that has been conducted by the University of the Philippines based on the Internet Usage and users' behavior. An evaluation of the effectiveness of Internet use conducted by Nuyda found that 1) the Internet use was not only limited as a research tool, but also it was used for communication purpose, 2) the minimum length of the Internet use of the respondent was two years, 3) the overall precision rate of the Internet is 67.76%, 4) the overall satisfaction rate of the respondents to the Internet is 85.52%, and lastly Internet is 77.03% effective in the respondents' perception.⁵⁶

Another study that has been conducted in an educational institution, by Eugenio, also gives a positive response to the Internet use. Eugenio found that students' awareness of the existence of the Internet section in their library was derived from friends, by coincident, by running through it unintentionally, and through freshmen orientation.⁵⁷ He also found that almost all the students use the

⁵⁴ Minges, *Krettek Internet*, 18.

⁵⁵ Michael Minges and others, eds., *Pinoy Internet: Philippines Case Study (Geneva: International Telecommunication Union, March 2002)*, 27.

⁵⁶ Anya Alexandra G. Nuyda, "Evaluation of the Effectiveness of the Internet as an Information Source as Perceived by Research Professional of Andersen Consulting" (Undergraduate' thesis, University of the Philippines, 2000), 26-46.

⁵⁷ Bryan Cruz Eugenio, "Perception of the De La Salle Zobel High School Students on the Effectiveness of the Internet Research" (Undergraduate' thesis, University of the Philippines, 2000), 27-51.

Internet for their research with the minimum frequency of use being once a week each month.

As the Internet and Information and Communication Technology (ICT) grows in the Philippines, the Philippines government believes that to foster lifelong learning skills in learners, educational development with a principal focus on quality and access should form the core of its ICT program.⁵⁸

Eric Thomson, a scholar from National University of Singapore, conducted a study about Internet-mediated networking among the academicians in Southeast Asian countries. He found that the effects of Internet access and communications also highlight the question of whether the Internet promotes broader participation in scholarship or entrenches the relationship of academic dependency.⁵⁹ In his research, Thomson found that there is a hierarchical relationship among scholars in social sciences and humanities working in the region of Southeast Asia at a national level and secondarily at an institutional level.⁶⁰

It is changing the lives of people, as more and more individuals regardless of where they reside – in the developed or developing countries, in rural or urban communities as they log on to World Wide Web – they step into the exciting world of information, education, entertainment, and commercial opportunities enabled by ICTs.⁶¹

Again, the Internet use brings a lot of changes in human life. It brings a new culture, social network, open – access, technology and knowledge transfer,

⁵⁸ Tian Belawati, *Philippines: ICT Use in Education* (UNESCO Meta-survey on the Use of Technologies in Education), available online from: http://www.unescobkk.org/fileadmin/user_upload/ict/Metasurvey/philippines.pdf. Internet: accessed 19 September 2007, 1.

⁵⁹ Eric C. Thomson, "Internet-Mediated Networking and Academic Dependency in Indonesia, Malaysia, Singapore, and the United States" *Current Sociology* vol. 54(1) (January 2006), 41.

⁶⁰ Thomson, "Internet-Mediated", 55.

⁶¹ Karan, ed., *Cyber Communities*, 2.

strengthen of relationships and even among the Church communities it can be a new way to reach out to the young people. In the mean time we can see that the Internet has far-reaching effects which are being felt all over the world.

Most of the previous studies show how Internet use has made significance changes in people's lives. As the Internet keeps growing, people will keep in changing in their behavior toward Internet use, not only in the "secular" community, but also in the religious community. The growth of technology, the availability of infrastructure and the need of life improvement make the Internet accessible. Internet users have different purposes for using the Internet. Some will use the Internet for their communication tools, some will use it for romance, some will use it for gathering information, and others for improving their life. Today's young generation "addiction" to the Internet is not a new phenomenon.

What are the best and positive ways of using the Internet? Is there any good intention for using the Internet? These questions might come to religious people when they use the Internet. How does the religious group utilize the Internet? In this study, the researcher chooses a particular religious community and finds out how they use the Internet. The study describes how the users' background of Internet use and the actual use can predict the users' future of Internet use.

CHAPTER THREE

RESEARCH DESIGN AND PROCEDURE

Method of Study

The study is descriptive and quantitative. A questionnaire was used to gather the information, which was encoded and statistically analyzed. The interpretation of the data tested the null hypothesis. Recommendations and suggestions have been given in relation to the findings.

Sample

The sample of this study is the entire residential students' population that currently enrolled in 2007 – 2008 academic year at APNTS. The study focused on the current residential students, which can provide the equality of Internet connection provided by the school. Recently, most residential students have come from Asian countries like Philippines, South Korea, Myanmar, Japan, and the United States of America.

Data Gathering Instrument

This research used a questionnaire as the main instrument. The questionnaire was designed to test the hypothesis based on the theoretical and conceptual framework. The main concept and content of the questionnaire was adapted from Kripanont, Chang, Fishbein and Ajzen model. Researcher used 5

points - Likert scales: 1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

The researcher did a pre-test of the questionnaire to 5 residential students. The result shows that most of the respondents can understand and answer the questionnaire except the question on section D2 which is close to D1; the researcher did a revision on the question before the final distribution.

Variables

The variables used as a model of measuring the research are the following areas:

- *Background of the respondent (Demographic Data)*
- *Background of the Internet Use*
- *Perceived Usefulness (PU) about using the Internet*
- *Perceived Ease Of Use (PEOU) about using the Internet*
- *Subjective Norm (SN) include: Social Influence and Facilitating Condition about using the Internet*
- *Self-Efficacy (Perceived Behavior Control) about using the Internet*
- *Attitude Toward Behavior about using the Internet*
- *How To Make Full Use (Behavioral Intention) about using the Internet*
- *Actual Behavior (AB) about using the Internet*
- *An Open Ended question which allowed respondents to write anything that relates to Internet use.*

Research Gathering Procedure

In doing this research, the researcher had some procedures that have been followed. There were; conducted pre-test of questionnaires upon a small group (3-5 students) on October 13, 2007; distributed the final format of questionnaires through the resident assistants on January 7, 2008; data collected from the returning questionnaires are completed on January 14, 2008. Statistical treatment is used to test the null hypothesis. Data interpretations, findings, and conclusions are given based the statistical analysis.

Statistical Treatment of Data

The data analysis is based on statistical method using Pearson Correlation Co-efficient (r) to test the correlation between the variable using SPSS 13.0 programs. The reliability of the data is tested by Cronbach's Alpha investigation before statistical analysis for Pearson correlation co-efficient. Multiple variables of linear regression are run to examine the standardized beta co-efficient (β). The final conclusion is made based on Pearson correlation co-efficient, the standardized beta co-efficient and linear relationship between the variables.

CHAPTER FOUR

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

The researcher distributed the questionnaires to the 44 residential students of APNTS on January 2008, in the second semester of 2007-2008' academic year. The researcher asked the resident assistants to help in distributing the questionnaires. There were 42 (95.45%) respondents who returned the questionnaires to the resident assistants who gave them back to the researcher.

The residential students are enrolled in APNTS within various programs. As an educational institution, APNTS offers four Master's Program: Master of Divinity (M.Div.), Master of Arts in Religious Education (MA RE), Master of Arts in Christian Communication (MA CC), and Master of Science in Theology (MST). Most of the residential students of APNTS come from the Asia-Pacific region: Philippines, Myanmar, South Korea, Japan and the United States of America.

Demographic Information

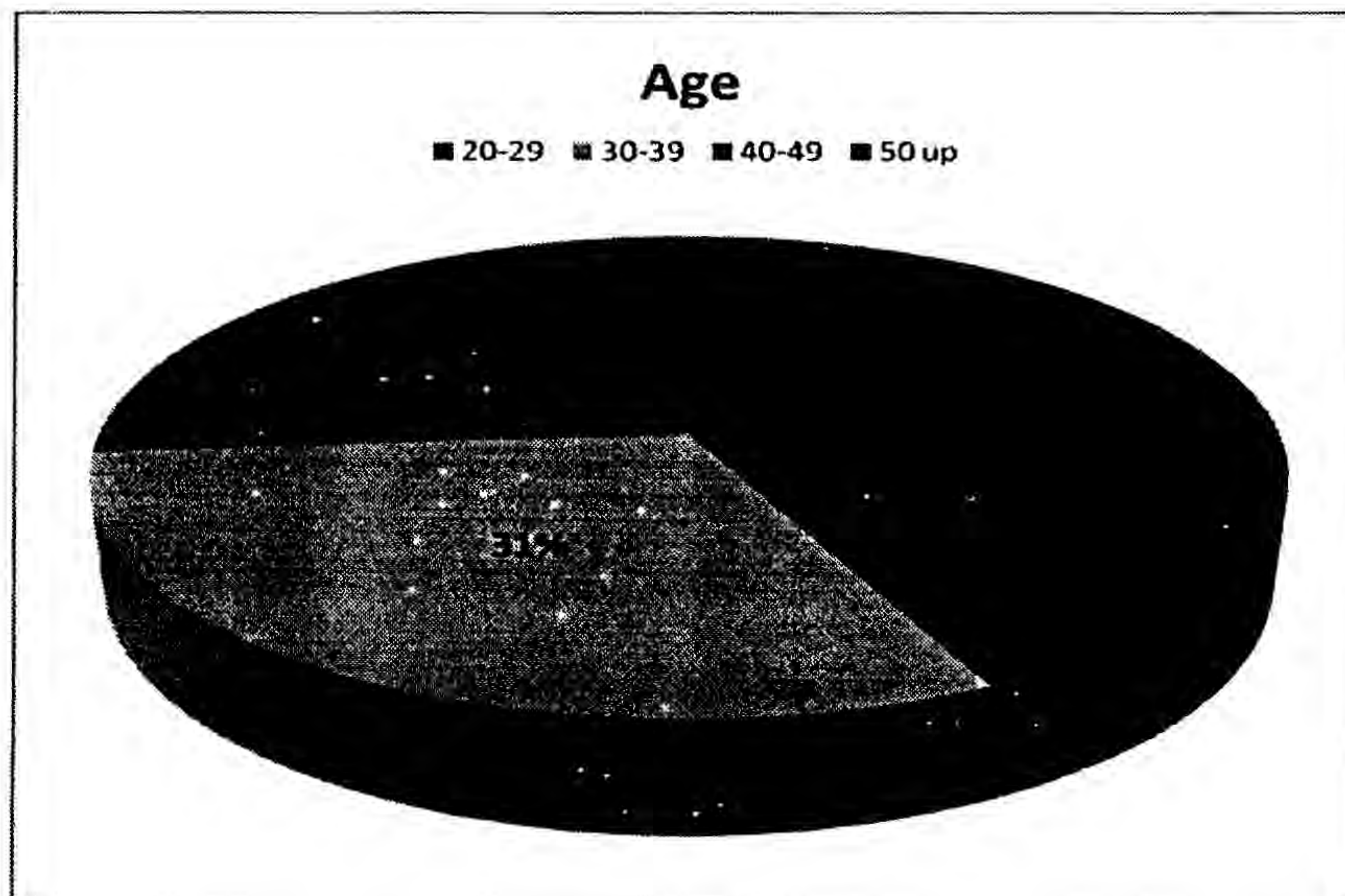


Figure 4.1 Age

The age compositions consist of 18 (43%) who are 20 – 29 years old; 13 (31%) who are 30 – 39 years old; 10 (24%) who are 40 – 49 years old and 1 (2%) is 50 years and up. The majority age group is 20 – 29 years old which shows that most of the users are potential Internet users in the future.

The data above is supported by the demographic data from Napapron's research (20 – 39 years old) and Chang's research (mean at 31 years old). The Internet has penetrated all ages. The UCLA Internet report also spoke of Internet users being across all ages and gender. In the educational institution with the availability of the connection, the Internet became one of the students' needs.

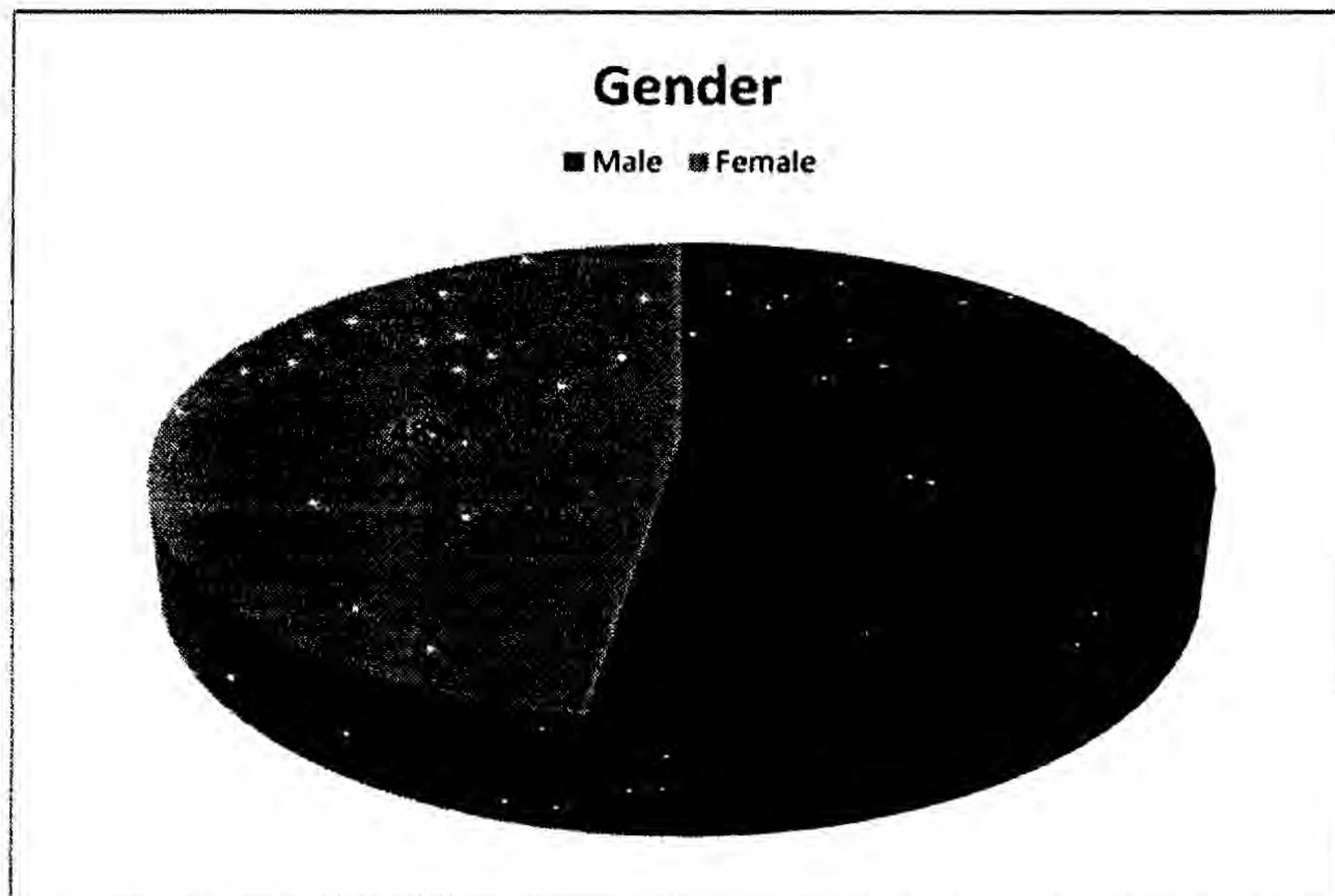


Figure 4.2 Gender

The gender information shows that there are 22 (52%) males and 20 (48%) females. Some of previous researchers found that men dominate Internet use compared to women. According to the gender composition given above, the gap between men and women is a very small percentage and almost equal.

Even though men dominate the Internet use, somehow they can “hide” their gender when they are in a virtual world. But somehow, the gender difference can show how the user uses the Internet, what services they use while connecting to the internet, and how much times they spend using the Internet. So in this research, there is not much gap between the number of males and females among the APNTS residential students.

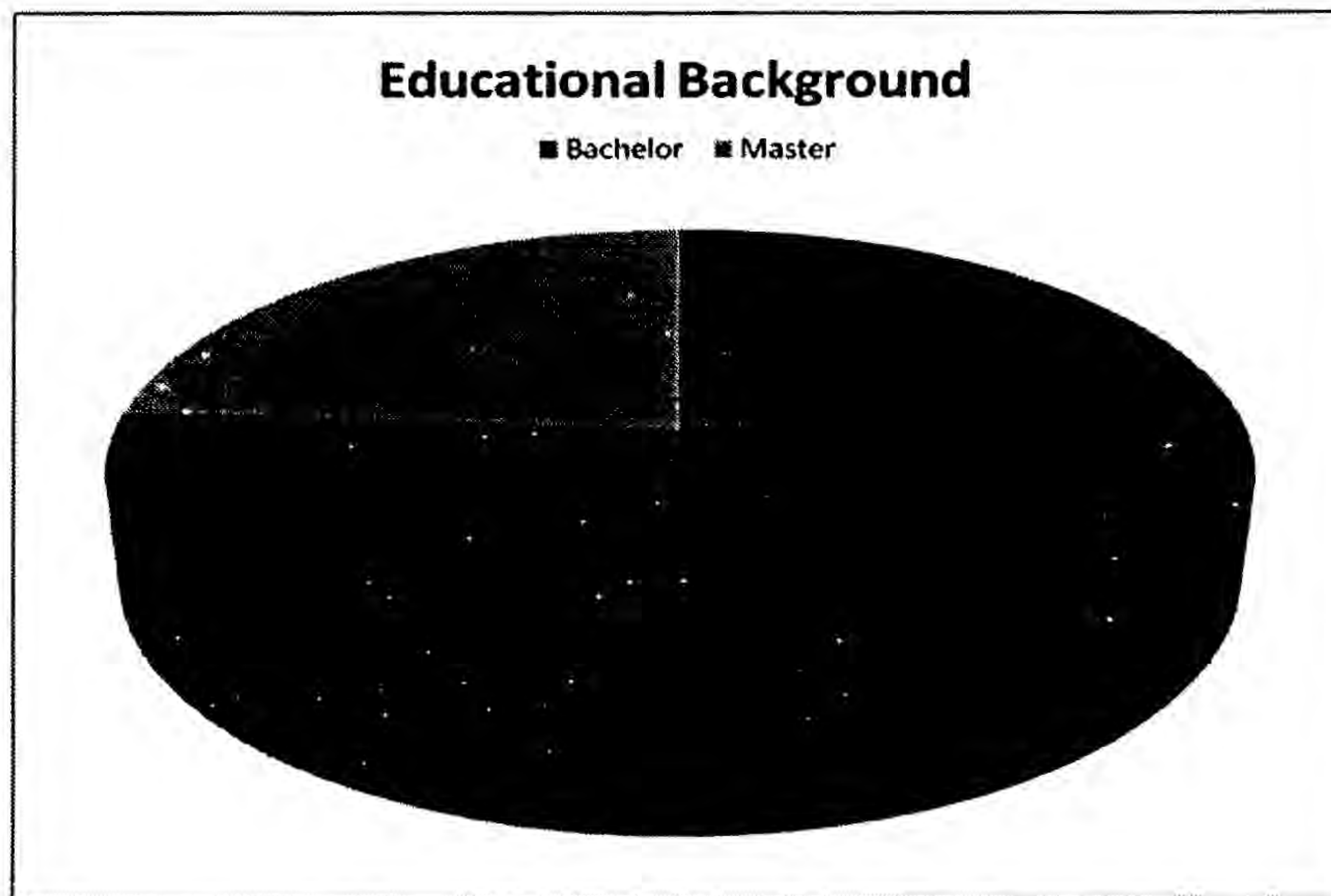


Figure 4.3 Educational Background

The last educational level completed consists of 32 (76%) Bachelor Degree and 10 (24%) Master' Degree students. The Internet can be used as one of the sources for the research or as a place to publish educational matters. There are many online articles or journals even in religious studies that can be accessed through the Internet.

As a graduate institution, APNTS only admits students who have completed their bachelor degree. But, there are some students who have a Master' degree and pursue another Master' degree at APNTS. The educational background can show various experiences and purposes for Internet use. Somehow, users with a Bachelor degree might have different needs and purposes for Internet use compared to students with a Master' degree background.

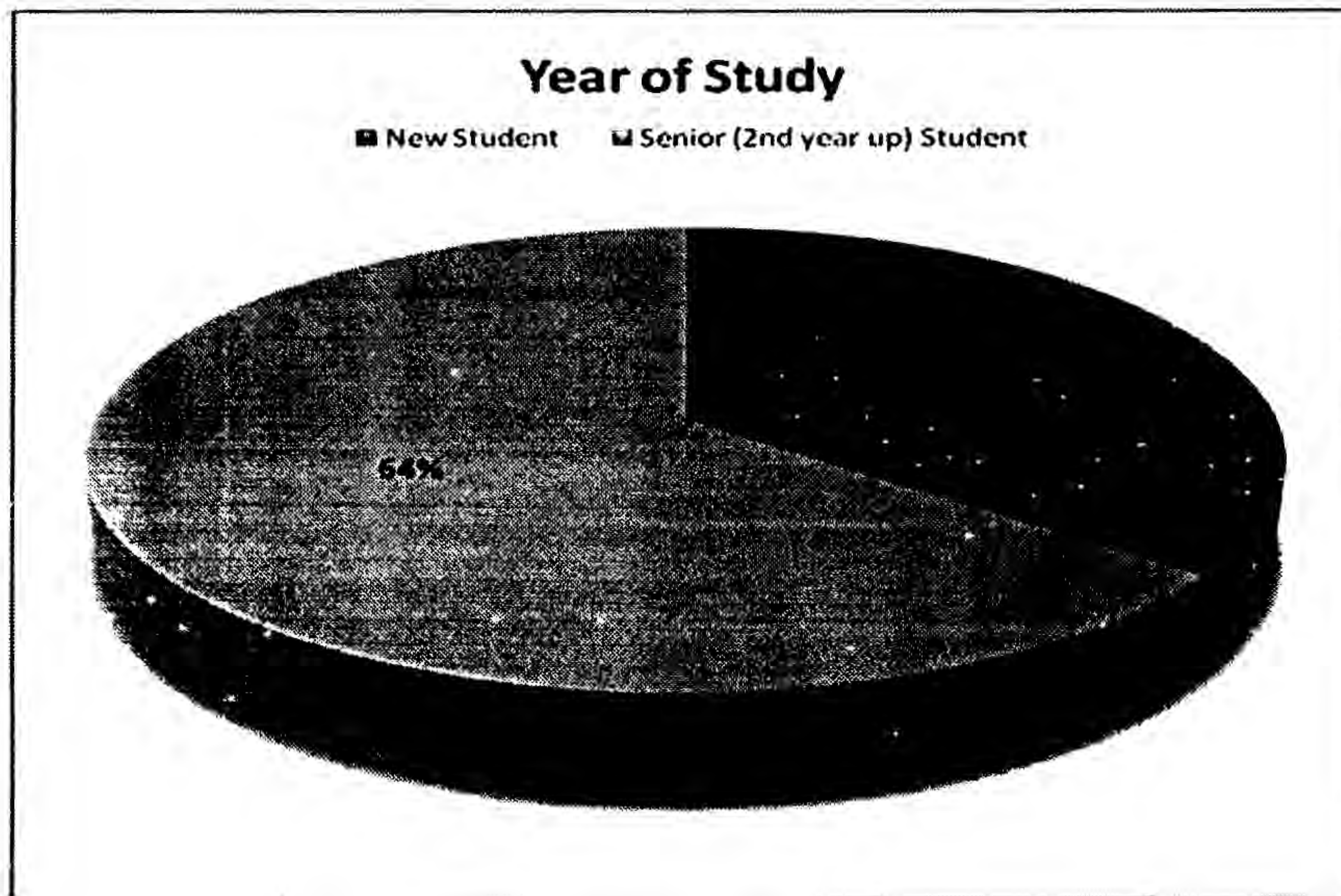


Figure 4.4 Year of Study

Among the 42 respondents, there are 27 (64%) senior (2nd and 3rd year) students and 15 (36%) new students. The data showed that most of the residential students are senior students. The Internet connection was provided within the student's residence since 2006. This means that most of the users have at least one year experience ahead compared to the new students.

The senior students might have different perceptions and intentions for Internet use compared to the new students. The background of their Internet use can affect their behavior toward Internet use. The behavior of a senior student concerning Internet use can be closed to a new student who uses the Internet a lot before coming to APNTS. So, this data shows that the year of study can make a difference in the needs of using the Internet and the users' background and experience.

Table 4.1. Demographic Information

		New Student		Senior (2nd year up)		Total
		Bachelor Degree	Master Degree	Bachelor Degree	Master Degree	
Male	20 - 29 years old	2		6	1	9
	30 - 39 years old	3		3	2	8
	40 - 49 years old	1		2	1	4
	50 up years old				1	1
Female	20 - 29 years old	4	1	3	1	9
	30 - 39 years old	2		1	2	5
	40 - 49 years old	2		3	1	6
	50 up years old					
Total		14	1	18	9	42

Background of Internet Use

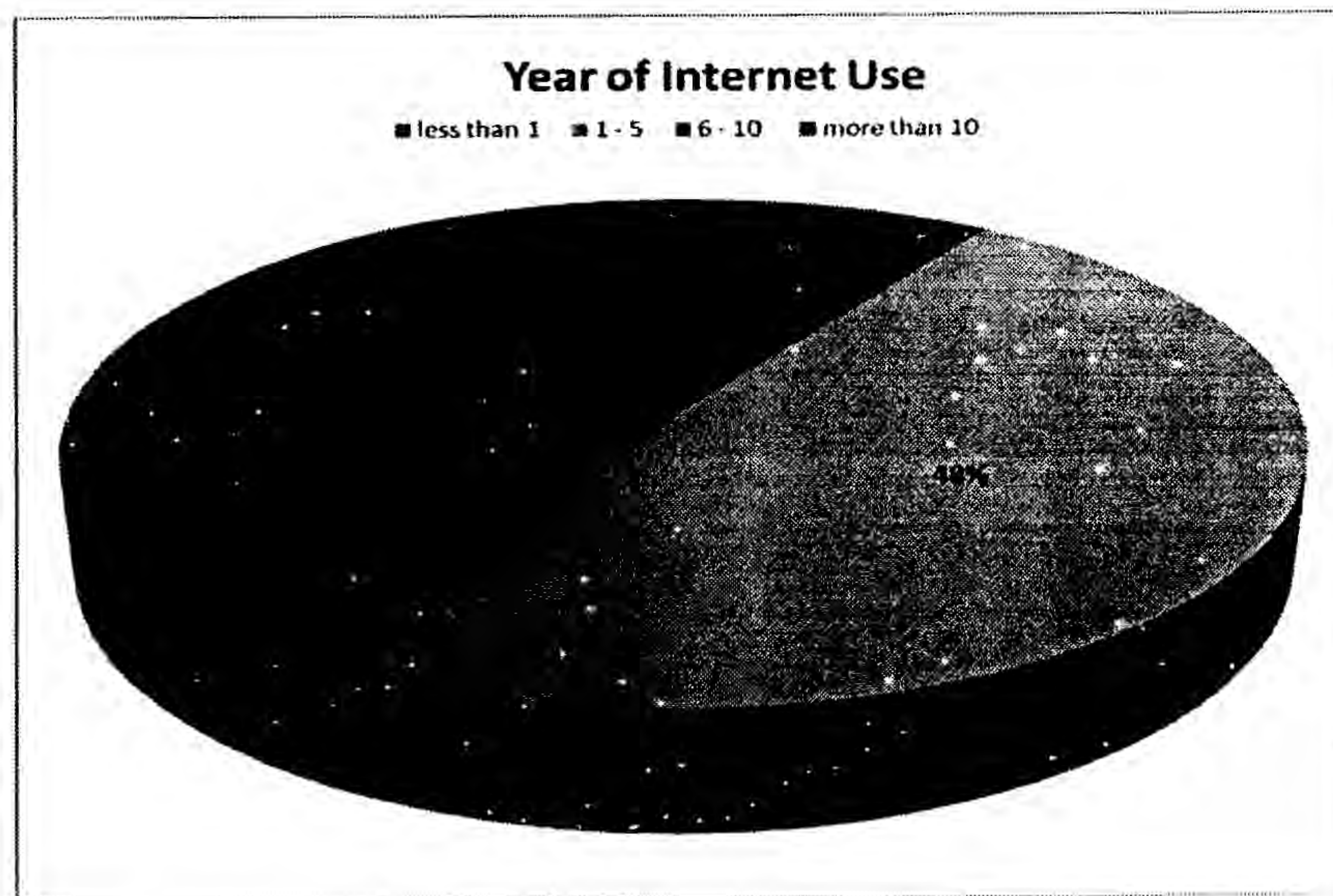


Figure 4.5 Year of Internet Use

Most of the respondents are new users. The data shows that 24 (57%) use the Internet between 0 - 5 years and only 5 (12%) have used the Internet for more than 10 years. From the data above, the Internet use among the residential students of APNTS communities still in the “beginner” stage (up to 5 years).

This situation refers to the history of Internet in the Philippines.

International Telecommunication Union’ (ITU) research about the Internet in the Philippines reported that the Internet was opened for public in 1994 and started penetrating in 1998, which is only 10 (ten) years ago.⁶²

⁶² Minges et al., *Pinoy Internet*, 22.

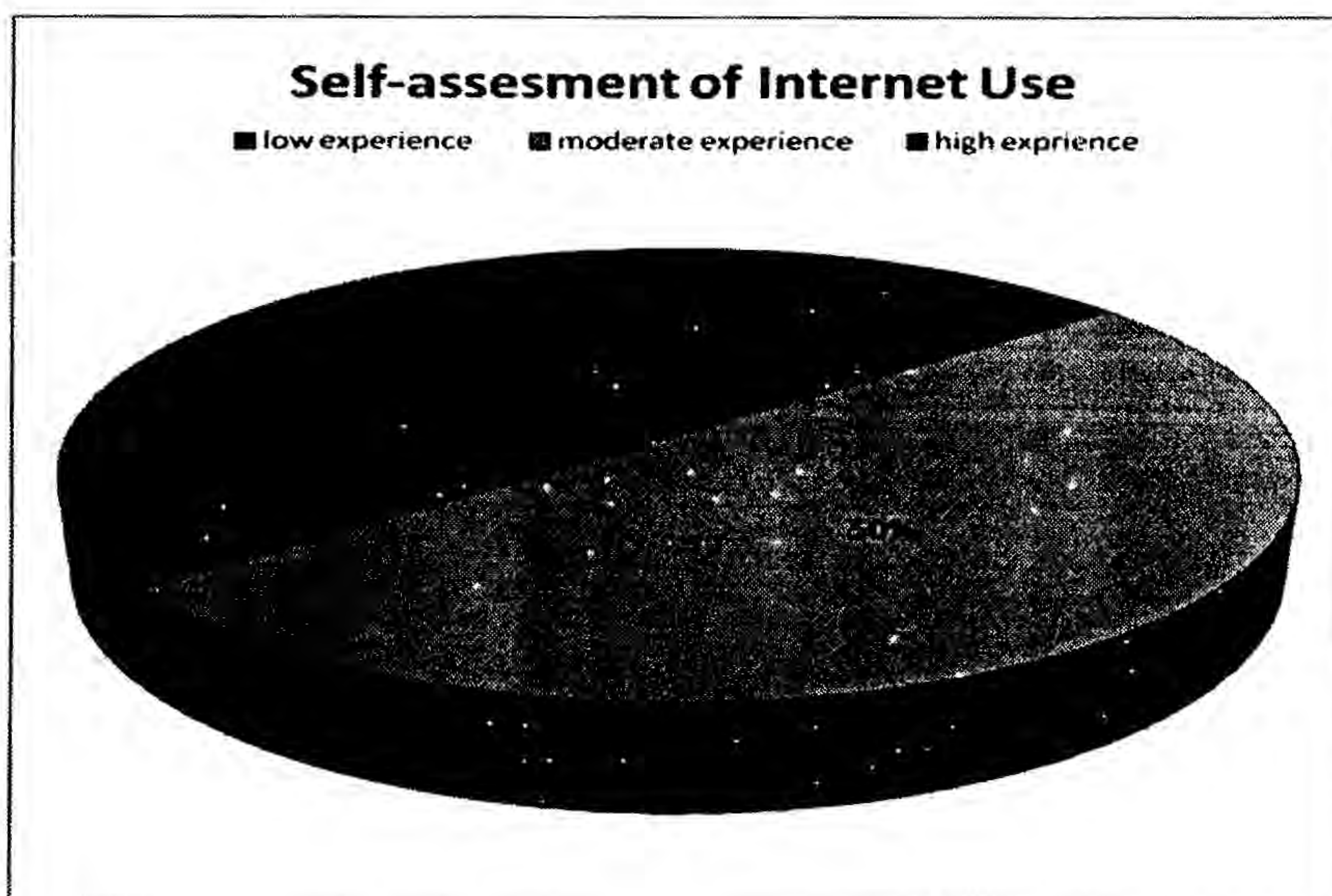


Figure 4.6 Self-assessment of Internet Use

The data shows that the users' self-assessment of Internet use is 6 (14%) as low experience, 21 (50%) as moderate experience, and only 15 (36%) as high experience. Most of the users say that they have moderate experience in Internet use. This can be affected by many factors. One of the major factors is language use. The resident students find that it is easy to use the Internet since they can understand English, which is the largest language used on the Internet.⁶³ Even though they are new to the Internet and considered as "beginning" users, yet more than half of them (86%) said that they have moderate experience.

⁶³ *Internet World Stats Data* (www.internetworldstats.com).

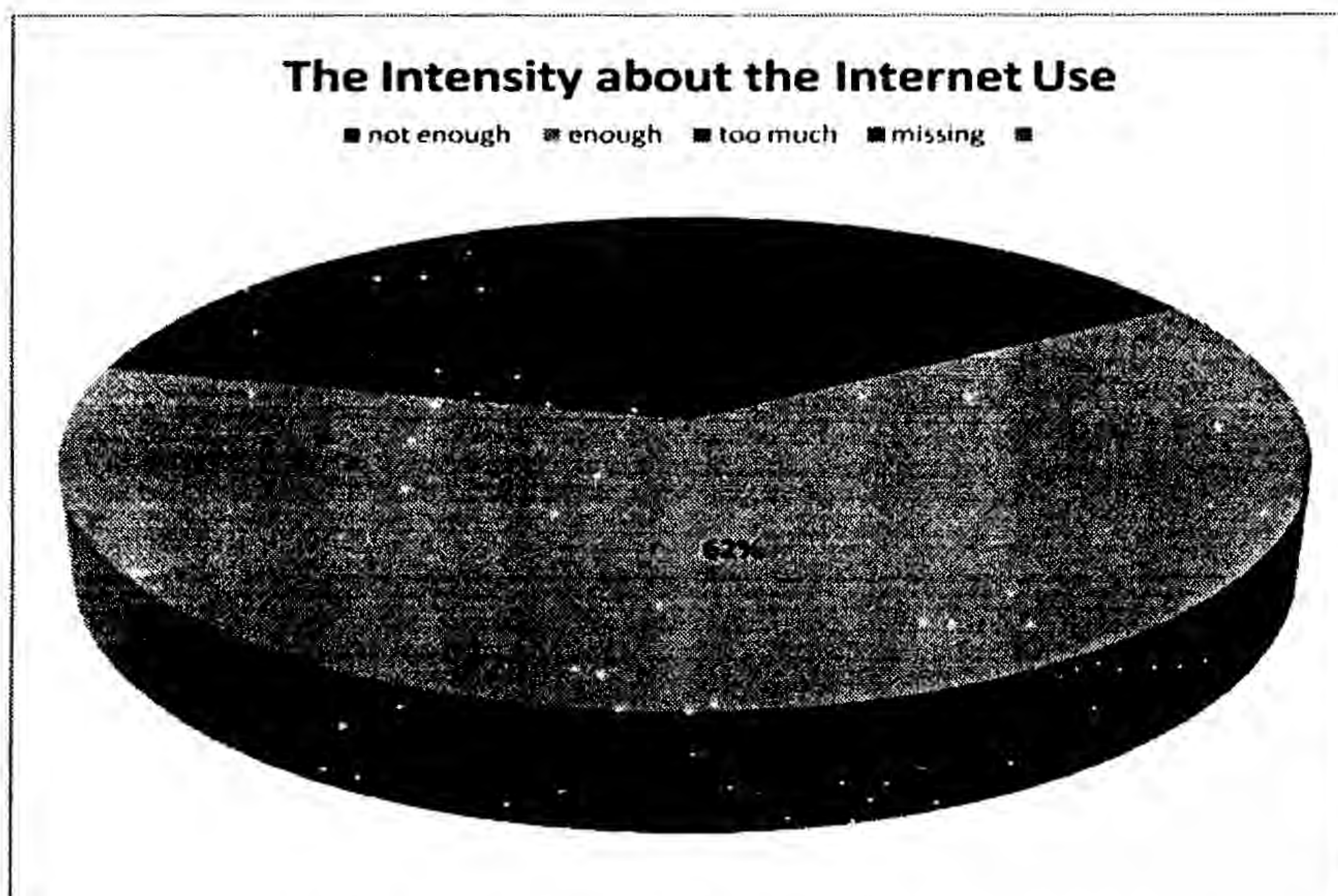


Figure 4.7 The Intensity about the Internet Use

Finding about the intensity of the Internet use among users shows that 7 (17%) say that it is not enough; 26 (62%) respondents say that they have enough in using the Internet; 8 (19%) say too much and only 1 (2%) did not answer the question.

The data shows that most of the users said that they have enough intensity for Internet use. This refers to their self-assessment of Internet use, as they are in the moderate level and “beginner” level of users; it reflects that they only utilize the Internet according to their level of experience. The more they use the Internet, the more they learn how to maximize the Internet features and the more they feel that it is not enough.

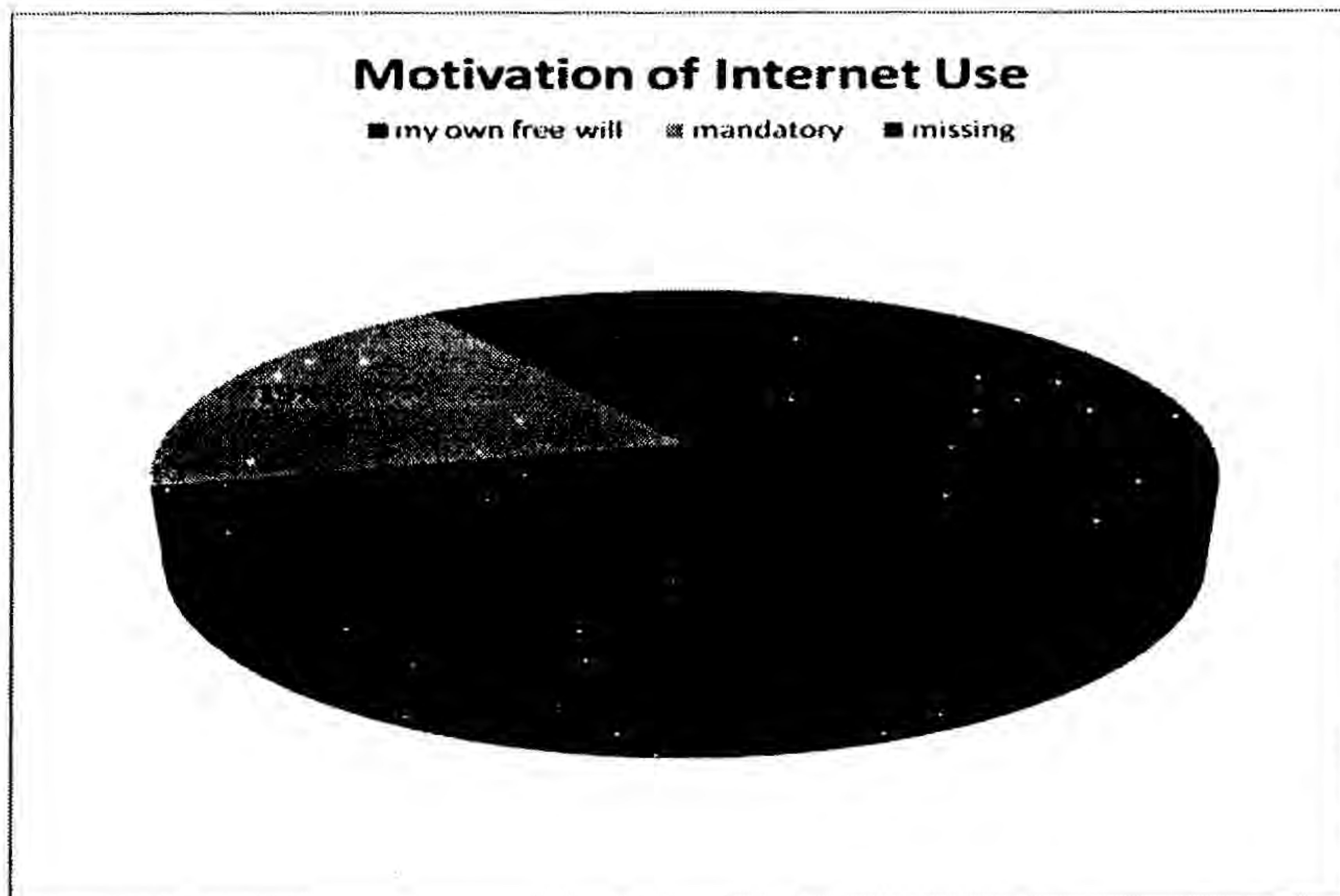


Figure 4.8 Motivation of Internet Use

The motivation of using the Internet shows that 30 (71%) respondents say that they use the Internet by their own free will, 8 (19%) respondents say because it is required, and 4 (10%) were not sure or did not answer. The demographic data above shows that most of the users are in the age range of 20 – 29 year olds. Users in this stage area like to try new things, including the Internet. Young people within that age range are an energetic generation; they like to try new experiences and their behaviors can be changed in a short period of time. They will try to use an Internet without someone requiring them to.

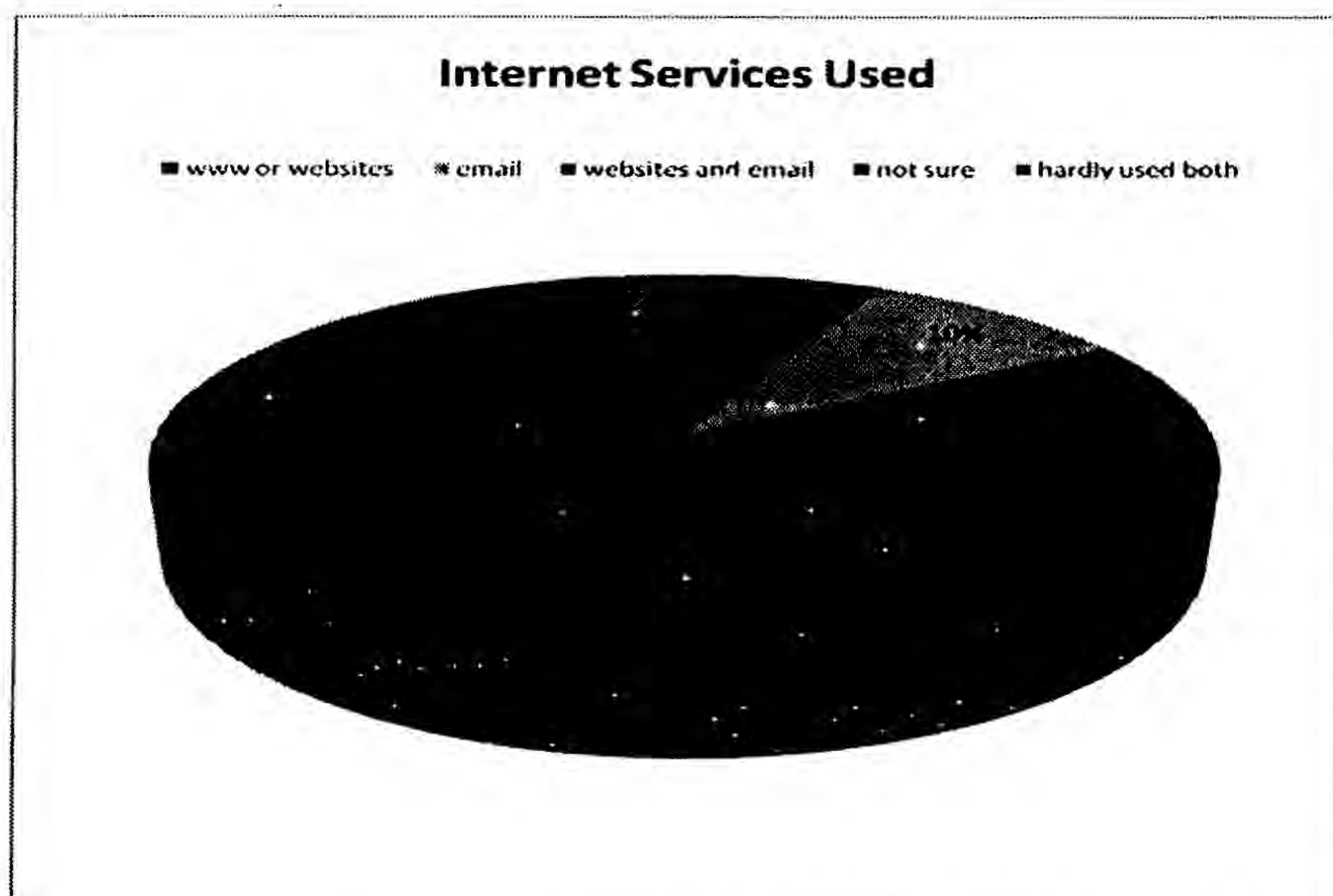


Figure 4.9 Internet Service Used

The services that the respondents use when they use the Internet are 3 (7%) who use www or websites; 4 (10%) who use email only; 33 (79%) who use both websites and e-mail; 1 (2%) who is not sure and another 1 (2%) hardly used both. This data refers to most of the Internet users who use e-mail as their main communication tool and websites (www) to find information or news.

This combination of features used in the use of the Internet shows that the users can enhance their need and purpose about using the Internet. This happens because the websites technology allows the user to have multiple uses including: e-mails, chats, downloading, finding news, etc.

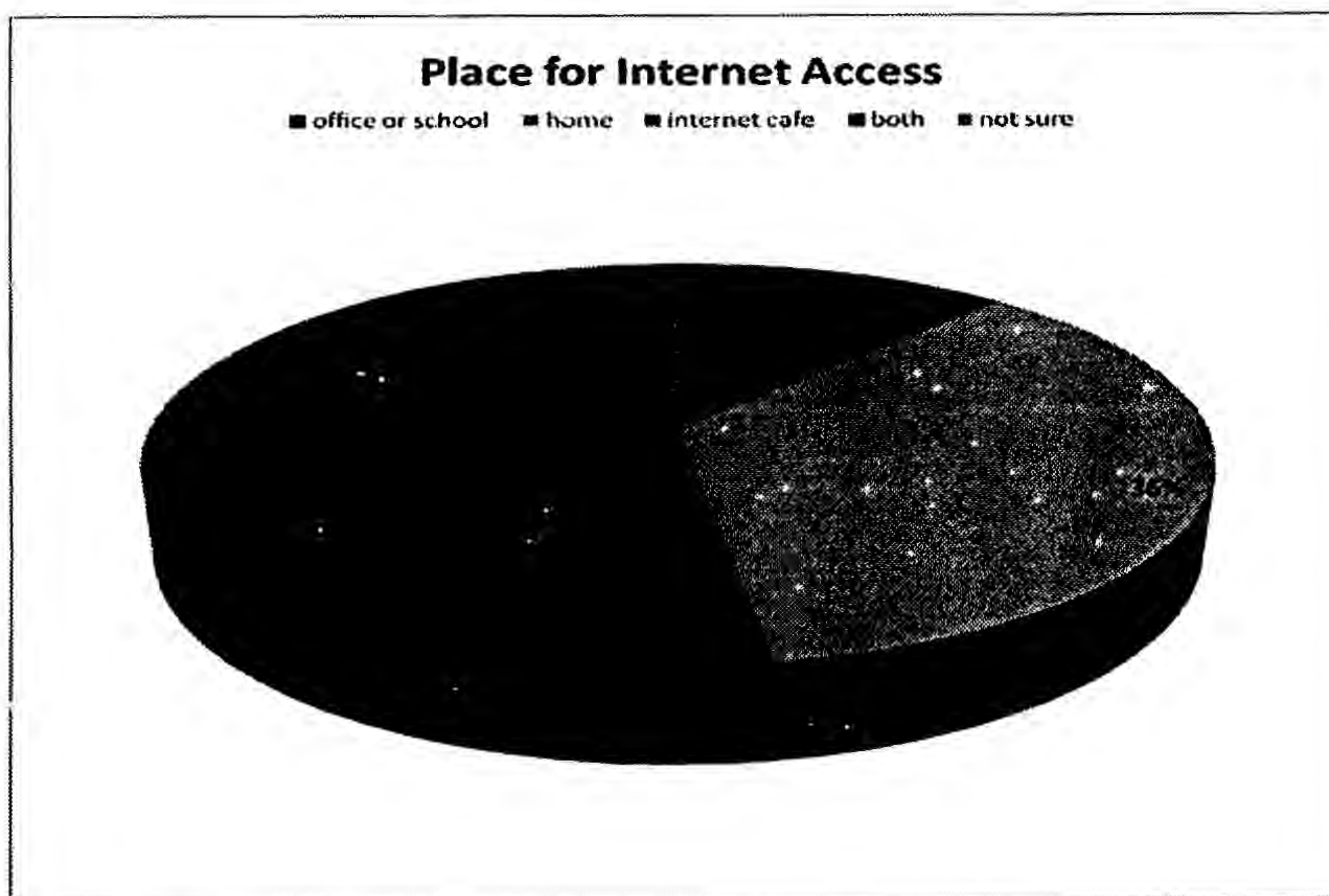


Figure 4.10 Place for Internet Access

In their experience before coming to APNTS, respondents accessed the Internet most at their home 15 (36%), in Internet Cafe 15 (36%), at the office or school 5 (12%), both at office and school 4 (9%), and not sure 3 (7%).

The Philippines is the only country in South East Asia where the local phone call is free.⁶⁴ Thus, dial-up Internet subscribers only pay for the Internet Service Provider (ISP) charge. This is reflected in the respondents who say that they get connected to the Internet from their home (probably using dial-up) and from Internet Cafés.

⁶⁴ Minges et.al, *Pinoy Internet*, 24.

Data Presentation

Table 4.2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PU	42	2.25	5.00	3.6607	.70672
EOU	42	1.75	5.00	3.7202	.83045
ATTTOB	42	2.50	5.00	4.1726	.67284
SUBNORM	42	2.38	5.00	3.6369	.54995
PERBC	42	2.25	5.00	3.8393	.60943
FULLUSE	42	2.25	5.00	3.7143	.70402
ACTUAL	42	3.00	6.00	4.7143	.92488
SELPREDICT	42	2.00	5.00	3.8175	.71170

As mentioned above, this research uses the Pearson Correlation coefficient (r) for testing the correlation between the variables. The researcher created a new variable based on the section mentioned in the theoretical framework.

Before doing the statistical analysis, the data should be checked for its reliability by testing the alpha. The alpha test used in this research is Cronbach's Alpha, which is an index of reliability associated with the variation accounted for by the true score of the "underlying construct." Construct is the hypothetical variable that is being measured.⁶⁵

Alpha co-efficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. Nunnally has indicated 0.7 to be an acceptable reliability co-

⁶⁵ J. Reynaldo A. Santos, "Cronbach's Alpha: A Tool for Assessing the Reliability of Scales" *Journal of Extension* vol. 37 (2) April 1999 (Journal on-line); available from <http://www.joe.org/joe/1999april/tt3.html>; Internet; accessed 28 January 2008.

efficient, but lower thresholds are sometimes used in the literature.⁶⁶ In this research the Cronbach's alpha is 0.782 which shows that the data collection is reliable (see App. B for the details).

The researcher used the bivariate correlation for each variable to determine the Pearson correlation co-efficient (r). The result of these correlations will be used to test the hypothesis (see App. B for the details).

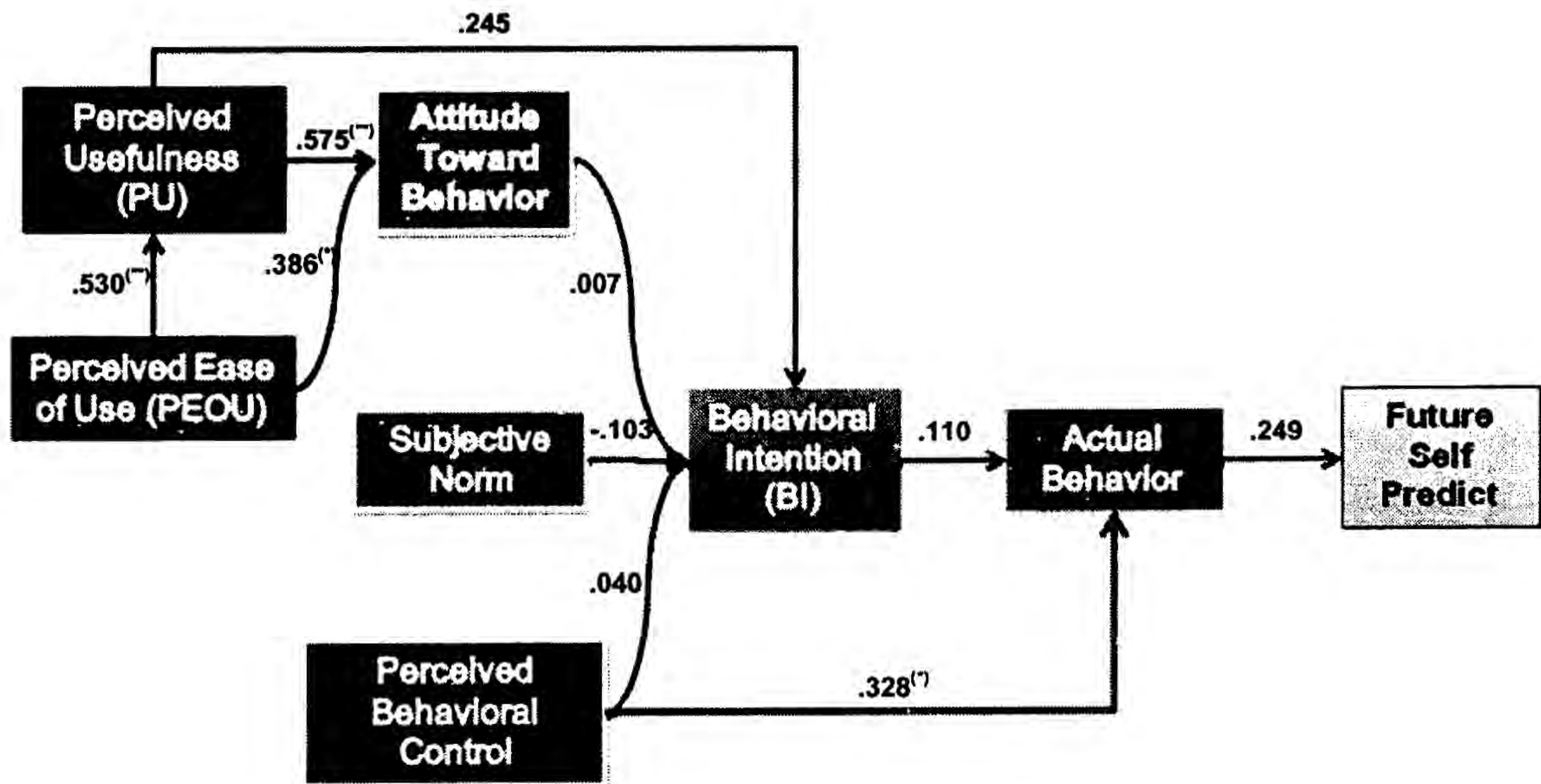
Table 4.3 Pearson' Coefficient of Bivariate Correlation

	PU	PEOU	ATTTOB	SUBNORM	PERBC	FULLUSE	ACTUAL	SELPREDICT
PU	1							
PEOU	.530 ^(**)	1						
ATTTOB	.575 ^(**)	.386 ^(*)	1					
SUBNORM	.456 ^(**)	.193	.450 ^(**)	1				
PERBC	.461 ^(**)	.436 ^(**)	.527 ^(**)	.388 ^(*)	1			
FULLUSE	.245	-.007	.007	-.103	.040	1		
ACTUAL	.426 ^(**)	.469 ^(**)	.228	.576 ^(**)	.328 ^(**)	.110	1	
SELPREDICT	.652 ^(**)	.288	.464 ^(**)	.317 ^(*)	.221	-.028	.249	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

⁶⁶ Santos, "Cronbach's Alpha", np.



** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Figure 4.11 Augmented TAM with Pearson' Coefficient of Bivariate Correlation

The Pearson correlation coefficient (r) is an index of the linear relationship between two variables.⁶⁷ For this reason, the researcher ran regression analysis based on the relationship between one dependent with two or more independent variables (see App. B for the details). From the linear regression, the researcher will have the standardized beta (β) or regression coefficient for the accuracy of prediction.⁶⁸

⁶⁷ Dennis E. Hinkle, William Wiersma, and Stephen G. Juns., *Applied Statistics for the Behavioral Sciences 2nd Ed.* (Boston: Houghton Mifflin Company, 1988), 112.

⁶⁸ Hinkle et al., *Applied Statistics*, 138.

Table 4.4 Linear Regression

Dependent variable: ATTOB

R	R Square	Adjusted R Square	Std. Error of the Estimate
.583(a)	.340	.306	.56057

Predictors: (Constant), PEOU, PU

Dependent variable: FULLUSE (Behavior Intention)

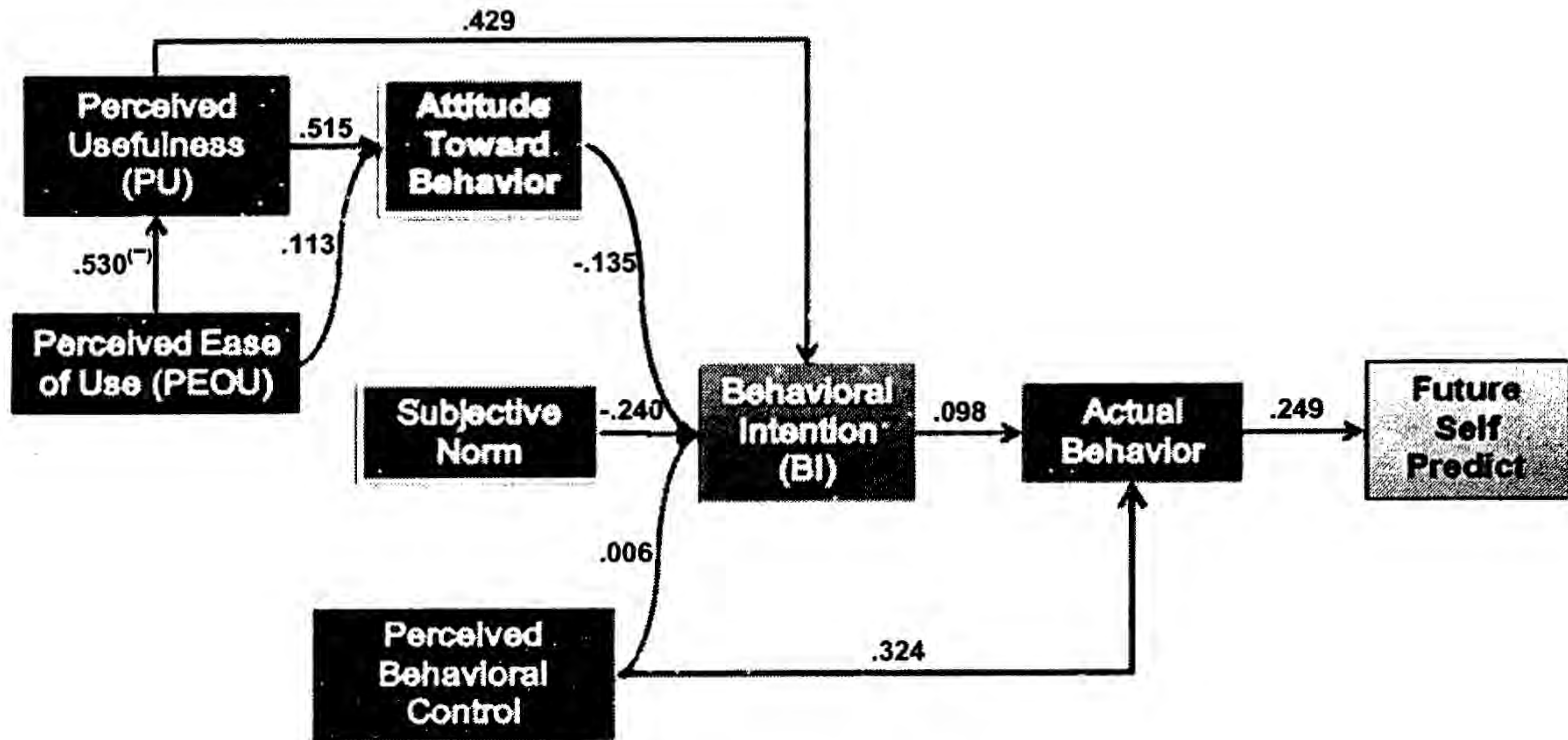
R	R Square	Adjusted R Square	Std. Error of the Estimate
.359(a)	.129	.035	.69161

Predictors: (Constant), PERBC, SUBNORM, PU, ATTOB

Dependent variable: ACTUAL

R	R Square	Adjusted R Square	Std. Error of the Estimate
.342(a)	.117	.072	.89118

Predictors: (Constant), PERBC, FULLUSE



** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Figure 4.12 Augmented TAM with Standardized Beta (β) Coefficient

Data Interpretation

The interpretation of the data is based on the Pearson coefficient and supported by the standardized beta (β) coefficient for the linear relationship. The researcher follows the rule of thumb for interpreting the size of a Correlation Coefficient; this is showed on the table below.

Table 4.5 Rule of Thumb for Interpreting the Size of a Correlation Coefficient⁶⁹

Size of Correlation	Interpretation
.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to - .90)	High positive (negative) correlation
.50 to .70 (-.50 to - .70)	Moderate positive (negative) correlation
.30 to .50 (-.30 to - .50)	Low positive (negative) correlation
.00 to .30 (-.00 to - .30)	Little if any correlation

1. The first correlation will test the first sub – null hypothesis. This will answer question number 3 (three): *what are the correlations perceived the usefulness, ease of use toward Internet use and users' attitude toward behavior among the residential students in the APNTS community?* The results show that the Pearson correlation co-efficient (r) of the Perceived the Usefulness (PU) and Perceived Ease of Use (PEOU) toward the Internet use is .530. This means that the two variables have moderately positive correlation. Pearson co-efficient of Perceived of Usefulness and Attitude toward Behavior is .575 with $\beta = .515$. The Pearson co-efficient of Perceived Ease of Use and Attitude toward Behavior is .386 with $\beta = .113$. The linear regression of two variables (PU & PEOU) with the Attitude toward Behavior gives R-square (r^2) = .340 with adjusted R-square = .306. From the two variables (PU & PEOU) as

⁶⁹ Hinkle et al., *Applied Statistics*, 118.

predictors for the Attitude toward Behavior, the researcher concludes that they have 30.6% of the attitude behavior is associated with PU & PEOU. **Then, the sub-null hypothesis number 1 (one) is rejected.**

2. This correlation will test the second sub – null hypothesis. This will answer question number 4 (four): *what are the correlations between subjective norms such as: social influence and facilitating condition, self-efficacy toward internet usage, perceived of Internet use and attitude toward behavior about using Internet among the residential students in the APNTS community?* Pearson correlation co-efficient between perceived usefulness and Behavioral Intention (BI) is .245 and $\beta = .429$. This means that there is low positive correlation; it also shows that these two variables are linear. Pearson correlation co-efficient between attitude toward behavior and behavioral intention is .007 with $\beta = -.135$. This means that there is no positive correlation and the two variables are not linear. Pearson correlation co-efficient between subjective norms and BI is -.103 with $\beta = -.240$. This means that there is no positive correlation and they are far away from linear relationship. Another Pearson correlation co-efficient between Perceived of Behavioral Control (PBC) and behavioral intention is .040 with $\beta = .006$. This means that there is almost no correlation; and it is not a linear relationship. The researcher ran the multiple variables regression with BI as the dependent variables; PU, PBC, attitude toward behavior and subjective norms are predictors or independent variables. The results showed R-square (r^2) = .129 with adjusted R-square = .035. This means that only 3.5% of the behavioral intention is associated with perceived usefulness, attitude toward behavior, and perceived behavioral control. **The**

researcher concludes that the sub – null hypothesis number 2 (two) is partially accepted. It is because there are still very small correlations which can predict the behavioral intention, and it does not show any linear relationship in between.

3. This correlation will test the third sub – null hypothesis. This will answer question number 5 (five): *what are the correlations between make full use of the internet (Behavioral Intention) in the work and actual behavior among the residential students in the APNTS community?* Pearson correlation coefficient between behavioral intention and Actual Behavior (AB) is .110 with $\beta = .098$. It means that there is little positive correlation. The result of Pearson correlation coefficient between perceived behavioral control and actual behavior is .328 with $\beta = .324$. This also refer that there is a low positive correlation. The researcher ran the multiple regressions with actual behavior as a dependent variable: behavioral intention and perceived of behavioral control as independent variables (predictors). From the analysis, the researcher got R-square (r^2) = .117 with adjusted R-square = .072. This shows that there is a very small (7.2%) part of actual behavior which is associated with behavioral intention and perceived of behavioral control.
Finally, the researcher concludes that sub – null hypothesis number 3 (three) is rejected.

4. This correlation will test the fourth sub – null hypothesis. This will answer question number 6 (six): *what are the correlations between the actual behaviors and self-predict of future Internet use among the residential*

students in the APNTS community? Pearson correlation co-efficient between actual behavior and self-predict of future Internet use is .249. From the Pearson co-efficient, R-square (r^2) will be .06. This means that there is little positive correlation between actual behavior and self-prediction of future Internet use. **The researcher concludes that the sub – null hypothesis number 4 (four) is rejected.**

5. Overall, this research will answer the main problem statement; *what are the communications behaviors in correlation between Internet use background; actual use and future self-predict use of the Internet among the residential students in the APNTS community?* The analysis results of the data shows the correlation between variables and how it can be used as a prediction. Even at the same point like attitude toward behavior; subjective norms do not show a positive correlation. But, overall the statistical data analysis shows that there is a positive correlation. It can predict the future Internet use of the respondent. **As the final result, the researcher concludes that the null hypothesis is rejected.**

6. Along with the questionnaire, the researcher also has an open ended question which allows the respondents to express some of their concerns not included in the other sections. 16 (sixteen) respondents out of 42 (forty two) commented in this space. The researcher classifies the responses into three main issues. The main comments from the respondents were:
 - a. **The Internet is a very useful tool.** There are 4 (four) respondents who responded this way. Some of the comments were:

“for me, internet is so important especially for communication”

“I realize that Internet usage is useful not only for younger generation but older generation too. So, it is a challenge for us. I am interested to learn more in order to appreciate and make use of technology.”

“easy to find things we search like historical or bibliographical writing. But, it takes a lot of time for doing that sometimes.”

“Internet is essential but it should not replace the actual person to person communication”

- b. **The warning about Internet use.** Some of the comments related to the danger of pornography and children are use of the internet. There are 4 (four) respondents who responded this way. Some of the comments were:

“children should be monitored by the parents or adults in using the Internet”

“very useful tool but could be dangerous to corrupt one’s mind because of easy access especially to attractive feature such as ‘pornography’”

“We need to be careful on the information we get from the web, they might not be true”

- c. **The Internet connection and facilities in APNTS.** Interestingly, there were more respondents who commented for it. There are 8 (eight) respondents who commented on this issue. Most of them “complain” about Internet connection within the dormitory or their apartment. They were saying that inconsistency of Internet connection give a lot of frustration for them. These were some of the comments:

“there are too much troubles and can not to connect Internet sometimes”

“Internet use is not consistently available in APNTS’ dorms. This sometimes causes negative effects for internet research & communication.”

“especially in the Philippines using the Internet connection strongly depends on the level of its performance of PC. So simply if we have better one the use of Internet will be increased a lot in various way with necessary help to this purpose.”

“failing network equipment + issue with ISP reliability are the greatest hindrances for me at APNTS”

“connection is sometimes inconsistent, a faster connection could be more motivating”

All of the comments show that generally the users have an exciting experience through Internet use. The largest numbers of comments are about the facilities, especially the Internet connection. This is true for the newer user, as shown above, who have used the Internet for less than 5 (five) years before coming to APNTS. As new users, the Internet is a new experience for them, so they want to do more but the facilities do not support their desires.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This research was designed to find out the communication behavior resulting from the Internet use among the religious community (APNTS). The communication behaviors showed as the correlation co-efficient between their past Internet use experience, actual use, and future use. It also involves how the variables predict the Internet use behavior. Internet, as one of the modern communication technologies, has shaped the communication behavior among the residential students in APNTS.

The researcher distributed questionnaires through the Resident Assistants. The questionnaire was distributed in January 2008 of the second semester of 2007 – 2008 academic year. The questions were asked based on the Combined Technology Acceptance Model and Theory of Planned Behavior (C-TAM-TPB) as the theoretical framework.

The Technology Acceptance Model (TAM) is the most widely accepted theoretical model in the Information System field, proposes that applications usage and adoption can be predicted based upon the factors of Perceived Ease Of Use (PEOU) and Perceived Usefulness (PU). The Theory of Planned Behavior (TPB) is proposed as an extension of the Theory of Reasoned Action (which was related to voluntary behavior), because of the limitations of Theory of Reasoned Action (TRA) in dealing with behaviors over which people have incomplete

volitional control. The TPB introduced a third independent determinant of intention, Perceived Behavior Control (PBC).

Summary

The researcher distributed 44 (forty four) questionnaires among the total population of APNTS residential students. There were 42 (forty two) respondents out of the 44 (forty four) respondents who returned the questionnaires. All the residential students stay in the APNTS dormitories which have 24 (twenty four) hours of full Internet access. The Internet access was provided to the student's dormitory beginning in 2006.

The residential students came from the countries within Asia Pacific Region: Philippines, Myanmar, South Korea, Japan and the United States of America. The youngest age range is 20 – 29 years and the oldest is over 50. The highest educational level completed is Bachelor degree and Master' degree. There are 27 (twenty seven) senior (2nd and 3rd year) students and 15 (fifteen) new students. The full demographic information was given in the table below:

Table 5.1 Respondents' Demographic Information

		New Student		Senior (2nd year up)		Total
		Bachelor Degree	Master Degree	Bachelor Degree	Master Degree	
Male	20 - 29 years old	2		6	1	9
	30 - 39 years old	3		3	2	8
	40 - 49 years old	1		2	1	4
	50 up years old				1	1
Female	20 - 29 years old	4	1	3	1	9
	30 - 39 years old	2		1	2	5
	40 - 49 years old	2		3	1	6
	50 up years old					
	Total	14	1	18	9	42

The users' background of using the Internet showed that most of the users are new to the Internet. There are 57% of the respondents who said that they use the Internet for less than 5 (five) years. Half of the users (50%) said that they have moderate experience in using the Internet. More than half (62%) said that they have enough intensity in using the Internet. In the motivation of using the Internet, the respondents (71%) said that they use the Internet by free will. There are 79% who said that they use both web sites (www) and e-mails. The places that they had Internet access are both home and Internet Cafés with equal 36% of the responses. The complete use of the Internet by users' background is presented in the table below:

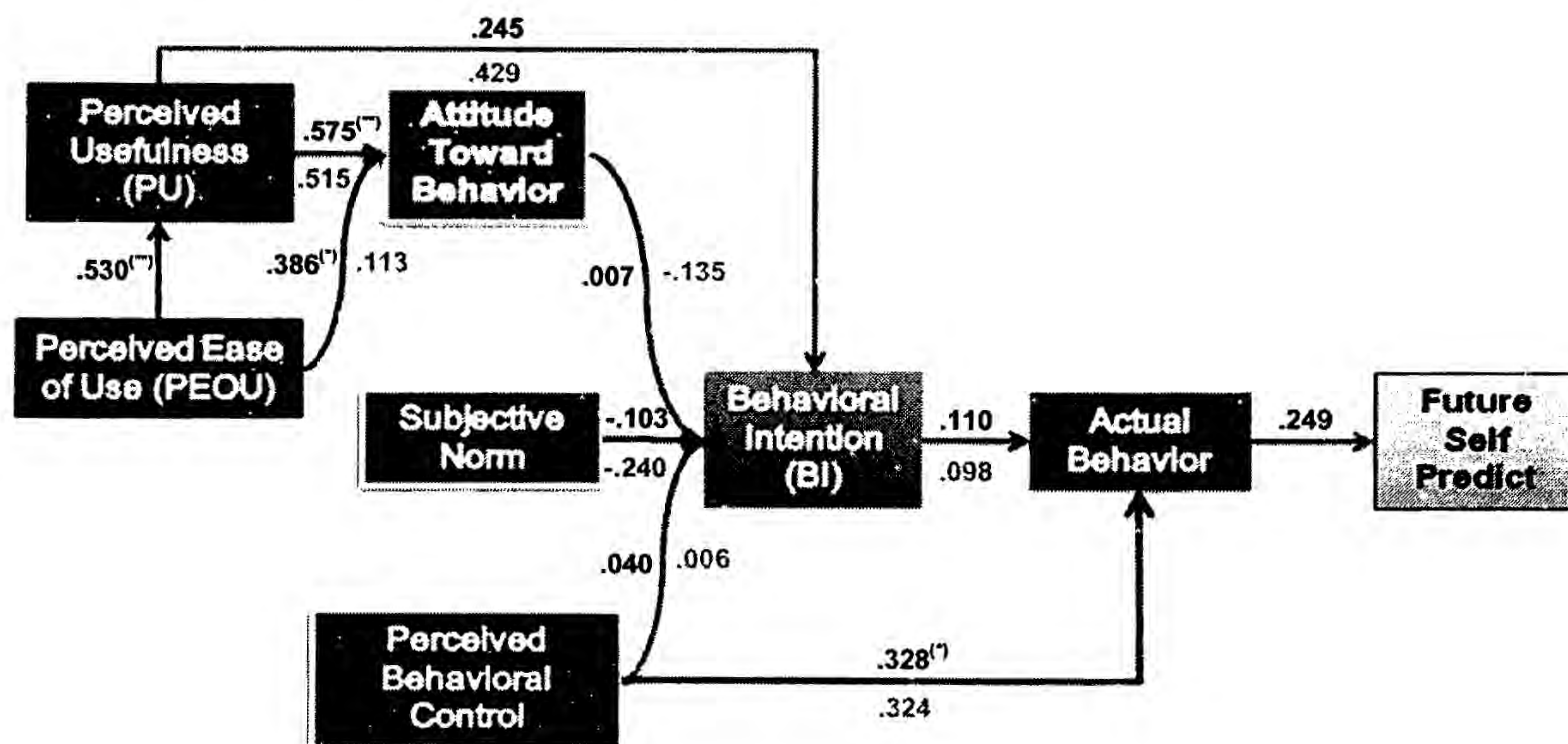
Table 5.2 Respondents' Internet Use Background

Users' Internet use background before coming to APNTS	Most	Least
Years of using Internet	1 – 5 years (48%)	Less than 1 year (9%)
Users' experience	Moderate (50%)	Low (14%)
Users' Intensity of using the Internet	Enough (62%)	Not enough (17%)
Users' Motivation of using the Internet	Free will (71%)	Required (19%)
Internet' service used	Both www & emails (79%)	Hardly used both (2%)
Place of using the Internet	Internet café (36%) & Home (36%)	Both (9%)

All the data are tested through statistical data treatment using SPSS 13.0 programs. The researcher applied the Pearson Correlation Co-efficient tests for the statistical treatment of the data. The Cronbach' alpha test was applied to

reliability and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). In this research the Cronbach's alpha is .782 which is shown that the data collection is reliable.

The researcher applied Bivariate Correlation Test to determine Pearson Correlation Co-efficient (r). The new variables were made in a group in each section of the questions. After the bivariate correlation test, the researcher ran the multiple variable of linear regression. This was used to see how the variables plot base on the relationship with each other. A standardized beta (β) co-efficient, R-square (r^2) and adjusted R-square are found by running this test.



** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

■ Bivariate Pearson' Correlation Coefficient

■ Standardized Beta (β) Coefficient

Figure 5.1 Augmented TAM with Bivariate Pearson Correlation Co-efficient and Standardized Beta (β) Co-efficient

From the data above, almost all of the Pearson correlation co-efficient is positive. Only one correlation between subjective norm and behavior intention is negative. The correlation indicates relationship or association between the two variables.⁷⁰ So, the greater number of the correlation co-efficient indicates the degree of relationship between the two variables. Even if the correlation co-efficient has a positive value; it does not mean that the two variables have causation relationship. It determines that one variance is associated with the other variance.

The multiple variable linear regression tests for the data gives the indicator about how linear is the variables related. This is because the size of the correlation co-efficient is affected by the homogeneity of the scores of the variables.⁷¹ If a relationship exists between two variables and that relationship is linear, then the more heterogeneous the scores and the greater range of measurement, the greater the absolute value of r .⁷² In multiple variable linear regression test, the results reflect the correlation co-efficient. The standardized beta (β) co-efficient shows how the independent variable (predictor) predict the dependent variable; the test also gives the R-square (r^2) and adjusted R-square (r^2).

⁷⁰ Hinkle et. al., *Applied Statistics*, 120.

⁷¹ Hinkle et. al., *Applied Statistics*, 121.

⁷² Hinkle et. al., *Applied Statistics*, 121.

Table 5.3 Multiple Variables Linear Regression

	1 st Linear Regression		2 nd Linear Regression		3 rd Linear Regression	
	Dependent Variable	Independent Variables	Dependent Variable	Independent Variables	Dependent Variable	Independent Variables
	ATTTOB	PEOU & PU	FULLUSE	PERBC, SUBNORM, PU, ATTTOB	ACTUAL	PERBC, FULLUSE
R		583(a)		.359(a)		.342(a)
R- Square (r^2)		.340		.129		.117
Adjusted R-square (r^2)		.306		.035		.072

In the last part of the questionnaire, the researcher provided the open ended question. There were 16 (sixteen) respondents on this question. The researcher classifies the responses 3 (three) main issues: 1) The Internet is a very useful tool, 2) The warning about the Internet use and 3) The Internet connection and facilities in APNTS.

In general, all the respondents said that the Internet has brought some changes in their communication behavior. For some students, the Internet is really a useful tool; for others they are aware of the “dangerous” of Internet use especially in pornography. But, most of them give “unsatisfaction” as the expression about the Internet facilities especially the network infrastructure. This might reflect about the “beginner user” level (less than 5 years) of their Internet use. Most of the “beginner user” will tend to spend more time on Internet use, so they will complain if they cannot find “satisfaction” facilities.

Conclusions

This research is designed to test the null hypothesis. It is done by distributing questionnaires among the APNTS students and by analyzing the data using the Pearson Correlation Co-efficient. This leads the researcher to these conclusions:

The main hypothesis is rejected because there is moderate correlation between the Internet users' background and actual use; then there is low correlation between actual use and future self-predict of Internet use.

With sub null hypothesis tested:

- *The first sub null – hypothesis is rejected.*
- *The second sub – null hypothesis number four is partially accepted. It is because there are still very small correlations but it does not show any linear relationship in between.*
- *The third sub null – hypothesis is rejected.*
- *The fourth sub null – hypothesis is rejected.*

Generally, the users' background of Internet use will have positive correlation with the actual use of Internet. And the actual use of the Internet will have positive correlation with the future self-prediction behavior. This is also true even in the religious community.

Recommendations

The researcher offers some recommendations from this research. One recommendation is that there could be a good and qualitative study conducted to describe the specific communication behavior of the Internet users. Then, future

study or research can relate the teaching and learning model between student and faculty at APNTS.

A future study or research could observe the students' attitude or behavior about using the Internet in public place (such as: library, student centre) compares to Internet use in the private room. This will provide the details of students' attitude in the both area of Internet connection. The study or research that observes the students' attitude or behavior about using the Internet while at APNTS compared to the Internet use in their field of ministry after their graduation. This will give a contribution to future self-prediction of Internet use.

As most of the respondents respond about the facilities improvement of the Internet connection, the researcher recommends this improvement in order to help the student make "full use" of the Internet.

Appendix A: Research Instrument

Questionnaire

GENERAL INSTRUCTION

It is a great opportunity to have you in this research. This questionnaire is part of my study entitled; "*Wired Religious Community: Internet Use & Communication Behavior among APNTS Residential Students*". The purpose of this study is to find out the communication behavior in resulting from Internet use among the APNTS residential students. Please follow the questionnaire' instructions below; **if it is possible, do not leave any blank answer and complete it at once sitting time.** All of the information given will be treat confidentially and use for the purpose of this study.

Thank you for your time and corporation. God Bless You.

If you have any inquiry regarding this questionnaire, please contact me at erkaburuan@gmail.com.

SECTION A: YOUR SELF BACKGROUND

Please answer [v] only one answer for the following questions.

1. Student Position (2007/2008 academic year)

- a. new student (1st year) b. senior student (2nd year and up)

2. Last Educational level completed

- a Bachelor Degree b Master Degree c Doctoral Level d Other (please specify).....

3. Gender

- a. Male b. Female

4. Age (years)

- a. 20-29 years b. 30-39 years c. 40-49 years d. 50 years and up

SECTION B: BACKGROUND OF YOUR INTERNET USE

Please answer [v] only one answer for the following questions.

1. How long have you been using the Internet (years)?

- a Less than 1 year b 1 - 5 years c 6 - 10 years d More than 10 years

2. What is your self-assessment about using the Internet?

- a Low experience b Moderate experience c High experience

3. Currently, how intense do you think that you use the Internet?

- a Not enough b Enough c Too much

4. What is/are the service/s of the Internet that you use most?

- a The World Wide Web (WWW) or Websites b Emails c Websites and Emails d Not sure e Hardly used both

5. Before coming to APNTS, where do you access the Internet?

- a At my office or school b At my home c Internet Cafe d Both e Not sure

6. Why do you use the Internet?

- a. I use the Internet by my own free will (Voluntary)
b. I use the Internet because it is required (Mandatory)

SECTION C: PERCEIVED USEFULNESS AND PERCEIVED EASE OF USE TOWARD INTERNET USAGE

*Please rate the extent to which you agree with each statement below.
(Please check v the most appropriate option for each statement below)*

1. PERCEIVED USEFULNESS about the Internet usage.

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Using the Internet enables me to accomplish tasks more quickly (e.g. communication). | 1 | 2 | 3 | 4 | 5 |
| 2. Using the Internet enhances the quality of my work or study. | 1 | 2 | 3 | 4 | 5 |
| 3. I find the Internet increases my daily productivity. | 1 | 2 | 3 | 4 | 5 |
| 4. Using the internet enables me to have more accurate information | 1 | 2 | 3 | 4 | 5 |

2. PERCEIVED EASES OF USE about using the Internet.

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

- | | | | | | |
|--|---|---|---|---|---|
| 1. Learning to use the Internet is easy for me. | 1 | 2 | 3 | 4 | 5 |
| 2. I find it easy to use the Internet to do what I want to do (e.g. communication) | 1 | 2 | 3 | 4 | 5 |
| 3. I find it easy for me to become skilful in using the Internet | 1 | 2 | 3 | 4 | 5 |
| 4. I find the Internet is easy to use. | 1 | 2 | 3 | 4 | 5 |

SECTION D: SUBJECTIVE NORM, FACILITATING CONDITIONS, SELF-EFFICACY TOWARD INTERNET USAGE, and ATTITUDE TOWARD BEHAVIOR about using Internet.

Please rate the extent to which you agree with each statement below.

(Please check v only one option for each statement below)

1. SOCIAL INFLUENCE about using the Internet.

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Peers think that I should use the Internet. | 1 | 2 | 3 | 4 | 5 |
| 2. Family and friends think that I should use the Internet. | 1 | 2 | 3 | 4 | 5 |
| 3. Students think that I should use the Internet. | 1 | 2 | 3 | 4 | 5 |
| 4. Management of my school (APNTS) thinks that I should use the Internet. | 1 | 2 | 3 | 4 | 5 |

2. FACILITATING CONDITIONS (FC) within APNTS about using the Internet.

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

- | | | | | | |
|--|---|---|---|---|---|
| 1. The resources necessary (e.g. computer hardware & software, communication network etc.) are available for me to use the Internet effectively. | 1 | 2 | 3 | 4 | 5 |
| 2. Guidance is available to me to use the Internet effectively. | 1 | 2 | 3 | 4 | 5 |
| 3. A specific person (or group) is available for assistance with the Internet difficulties. | 1 | 2 | 3 | 4 | 5 |
| 4. Overall, the use of internet is very supportive | 1 | 2 | 3 | 4 | 5 |

3. SELF-EFFICACY (PERCEIVED BEHAVIOR CONTROL) about using the Internet

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree

- | | | | | | |
|--|---|---|---|---|---|
| 1. I feel comfortable when I use the Internet on my own. | 1 | 2 | 3 | 4 | 5 |
| 2. I am able to use the Internet even if there is no one around to show me how to use it. | 1 | 2 | 3 | 4 | 5 |
| 3. I can complete my task by using the Internet if I can call someone for help if I get stuck. | 1 | 2 | 3 | 4 | 5 |
| 4. I can complete my task by using the Internet if I have a lot of time. | 1 | 2 | 3 | 4 | 5 |

4. ATTITUDE TOWARD BEHAVIOR about using Internet

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

- | | | | | | |
|---|---|---|---|---|---|
| 1. I think positively about using the internet | 1 | 2 | 3 | 4 | 5 |
| 2. The internet is a positive tool for the school (APNTS) | 1 | 2 | 3 | 4 | 5 |
| 3. Implementation of the internet is a wise idea | 1 | 2 | 3 | 4 | 5 |
| 4. Using the internet has been a pleasant experience | 1 | 2 | 3 | 4 | 5 |

SECTION E: ACTUAL BEHAVIOR about using Internet

1. How many times do you use the internet during a week?

(Please check v only one option)

___ not at all; ___ less than once/wk; ___ once/wk; ___ 2-3/wk;
___ several times/wk; ___ once/day; ___ several times/day

2. How frequently do you use the internal network provide by APNTS for your study?

___ infrequent–extremely; ___ quite; ___ slightly; ___ n/a;
___ extremely-frequently

SECTION F: HOW TO MAKE FULL USE OF THE INTERNET IN WORK

Please rate the extent to which you agree with each statement below.

(Please check v only one answer for each statement)

1 = Strongly Disagree, 2=Disagree somewhat, 3 = Neutral, 4 = Agree somewhat, 5 = Strongly Agree.

1. Overall, I think I still have not made full use of the Internet in my work so I intend to use the Internet more in all type of my work (e.g. ministry, ministry related-tasks, research, administrative tasks, etc.) in the future. 1 2 3 4 5

2. Motivations to make full use of the Internet in your study.

a. If technicians are available in helping me as a student when I have difficulties; would motivate me to make full use of the Internet in my study. 1 2 3 4 5

b. If updated Internet trainings are available when necessary for student; would motivate me to make full use of the Internet in my study, since Internet Technology was developed very quickly so I could not catch up without trainings. 1 2 3 4 5

c. If good facilities (e.g. good computer hardware and software, good communication network etc.) are available to support usage, would motivate me to make full use of the Internet in my study. 1 2 3 4 5

2.4 Other (Please specify) 1 2 3 4 5

.....

SECTION G: SELF-PREDICT FOR FUTURE INTERNET USAGE

Please rate the extent to which you intend to use the Internet in the future.

(Please check v only one answer)

1. Self-predict of future internet usage in: Ministry and ministry related tasks.

1= Do not use at all 2= Use about once a month

3= Use about once a week 4= Use about once a day

5= Use several times a day

2. I intend to use the Internet when I have my own ministry. 1 2 3 4 5

3. I intend to use the Internet in providing a Personal Web-Base for facilitating ministry (e.g. on-line church sites, sermon, noted, counseling, prayer request, and providing information of my ministry, etc.) 1 2 3 4 5

5. I intend to use the Internet for preparing my sermon materials. 1 2 3 4 5

6. I intend to use the Internet for enhancing my ministry knowledge. 1 2 3 4 5

7. I intend to use e-mail for congregation contact and giving my advice. 1 2 3 4 5

2. Overall, I intend to use the Internet in the future in all of my work. 1 2 3 4 5

If you have any additional comments you wish to make about Internet use, please add them here.

.....

.....

.....

.....

.....

Appendix B: Result of Statistical Data Treatment

Frequencies

Notes

Output Created	26-JAN-2008 00:36:37	
Comments		
Input	Data	C:\Documents and Settings\Emil Robert Kaburuan\Desktop\2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax	FREQUENCIES VARIABLES=studentposition educationlevel Gender Age useinternet selfassign intenseinter internetuse beforehereuse whyuse /STATISTICS=MEAN /PIECHART PERCENT /ORDER= ANALYSIS .	
Resources	Elapsed Time	0:00:02.14
	Total Values Allowed	149796

Statistics

	Student position	Education level	Gender	Age	Use internet	Self assign	Intense inter	internet use	Before here use	Why use
N Valid	42	42	42	42	42	42	41	42	42	38
Missing	0	0	0	0	0	0	1	0	0	4
Mean	1.6429	1.2381	1.4762	1.8571	2.4524	2.2143	2.0244	2.8333	2.6429	1.2105

Frequency Table

Student Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	New Student	15	35.7	35.7	35.7
	Senior (2nd year up) Student	27	64.3	64.3	100.0
	Total	42	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor	32	76.2	76.2	76.2
	Master	10	23.8	23.8	100.0
	Total	42	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	22	52.4	52.4	52.4
	Female	20	47.6	47.6	100.0
	Total	42	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29	18	42.9	42.9	42.9
	30-39	13	31.0	31.0	73.8
	40-49	10	23.8	23.8	97.6
	50 up	1	2.4	2.4	100.0
	Total	42	100.0	100.0	

Use Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1	4	9.5	9.5	9.5
	1-5	20	47.6	47.6	57.1
	6-10	13	31.0	31.0	88.1
	more than 10	5	11.9	11.9	100.0
	Total	42	100.0	100.0	

Self Assign

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	low experience	6	14.3	14.3	14.3
	moderate experience	21	50.0	50.0	64.3
	high experience	15	35.7	35.7	100.0
	Total	42	100.0	100.0	

Intense Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not enough	7	16.7	17.1	17.1
	enough	26	61.9	63.4	80.5
	too much	8	19.0	19.5	100.0
	Total	41	97.6	100.0	
Missing	.00	1	2.4		
Total		42	100.0		

Internet Use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	www or websites	3	7.1	7.1	7.1
	email	4	9.5	9.5	16.7
	websites and email	33	78.6	78.6	95.2
	not sure	1	2.4	2.4	97.6
	hardly used both	1	2.4	2.4	100.0
	Total	42	100.0	100.0	

Before here use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	office or school	5	11.9	11.9	11.9
	home	15	35.7	35.7	47.6
	internet cafe	15	35.7	35.7	83.3
	both	4	9.5	9.5	92.9
	not sure	3	7.1	7.1	100.0
	Total	42	100.0	100.0	

Why use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	my own free will	30	71.4	78.9	78.9
	mandatory	8	19.0	21.1	100.0
	Total	38	90.5	100.0	
Missing	.00	4	9.5		
Total		42	100.0		

Reliability

Notes

Output Created		26-JAN-2008 23:08:44
Comments		
Input	Data	C:\Documents and Settings\Emil Robert Kaburuan\Desktop\3.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		<p>RELIABILITY</p> <p> /VARIABLES=PU PEOU</p> <p>ATTTOB SUBNORM PERBC</p> <p>FULLUSE ACTUAL SELF PREDICT</p> <p> /FORMAT=NOLABELS</p> <p> </p> <p>/SCALE(ALPHA)=ALL/MODEL=ALPHA</p> <p> </p> <p>/STATISTICS=DESCRIPTIVE CORR</p> <p> /SUMMARY=TOTAL</p> <p>MEANS VARIANCE CORR .</p>
Resources	Elapsed Time	0:00:00.02
	Memory Available	524288 bytes
	Largest Contiguous Area	524288 bytes
	Workspace Required	1064 bytes

Warnings

The covariance matrix is calculated and used in the analysis.

Case Processing Summary

		N	%
Cases	Valid	42	100.0
	Excluded(a)	0	.0
	Total	42	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.788	8

Item Statistics

	Mean	Std. Deviation	N
PU	3.6607	.70672	42
PEOU	3.7202	.83045	42
ATTTOB	4.1726	.67284	42
SUBNORM	3.6369	.54995	42
PERBC	3.8393	.60943	42
FULLUSE	3.7143	.70402	42
ACTUAL	4.7143	.92488	42
SELPREDICT	3.8175	.71170	42

Inter-Item Correlation Matrix

	PU	PEOU	ATTTOB	SUBNORM	PERBC	FULLUSE	ACTUAL	SELPREDICT
PU	1.000	.530	.575	.456	.461	.245	.426	.652
PEOU	.530	1.000	.386	.193	.436	-.007	.469	.288
ATTTOB	.575	.386	1.000	.450	.527	.007	.228	.464
SUBNORM	.456	.193	.450	1.000	.388	-.103	.576	.317
PERBC	.461	.436	.527	.388	1.000	.040	.328	.221
FULLUSE	.245	-.007	.007	-.103	.040	1.000	.110	-.028
ACTUAL	.426	.469	.228	.576	.328	.110	1.000	.249
SELPREDICT	.652	.288	.464	.317	.221	-.028	.249	1.000

The covariance matrix is calculated and used in the analysis.

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.909	3.637	4.714	1.077	1.296	.134	8
Item Variances	.522	.302	.855	.553	2.828	.031	8
Inter-Item Correlations	.317	-.103	.652	.755	-6.315	.041	8

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PU	27.6151	9.329	.782	.706	.707
PEOU	27.5556	9.793	.524	.502	.752
ATTTOB	27.1032	10.276	.574	.494	.744
SUBNORM	27.6389	11.026	.514	.562	.757
PERBC	27.4365	10.709	.533	.388	.752
FULLUSE	27.5615	12.399	.063	.263	.821
ACTUAL	26.5615	9.361	.528	.528	.753
SELPREDICT	27.4583	10.518	.473	.499	.760

Correlations

Notes

Output Created	26-JAN-2008 22:52:53	
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax	CORRELATIONS /VARIABLES=PU PEOU ATTTOB SUBNORM PERBC FULLUSE ACTUAL SELFPREDICT /PRINT=TWOTAIL NOSIG /STATISTICS DESCRIPTIVES /MISSING=PAIRWISE .	
Resources	Elapsed Time	0:00:00.02

Descriptive Statistics

	Mean	Std. Deviation	N
PU	3.6607	.70672	42
PEOU	3.7202	.83045	42
ATTTOB	4.1726	.67284	42
SUBNORM	3.6369	.54995	42
PERBC	3.8393	.60943	42
FULLUSE	3.7143	.70402	42
ACTUAL	4.7143	.92488	42
SELPREDICT	3.8175	.71170	42

Correlations

		PU	PEOU	ATTTOB	SUBNORM	PERBC	FULLUSE	ACTUAL	SELPREDICT
PU	Pearson Correlation	1	.530(**)	.575(**)	.456(**)	.461(**)	.245	.426(**)	.652(**)
	Sig. (2-tailed)		.000	.000	.002	.002	.118	.005	.000
	N	42	42	42	42	42	42	42	42
PEOU	Pearson Correlation	.530(**)	1	.386(*)	.193	.436(**)	-.007	.469(**)	.288
	Sig. (2-tailed)	.000		.012	.221	.004	.965	.002	.064
	N	42	42	42	42	42	42	42	42
ATTTOB	Pearson Correlation	.575(**)	.386(*)	1	.450(**)	.527(**)	.007	.228	.464(**)
	Sig. (2-tailed)	.000	.012		.003	.000	.965	.146	.002
	N	42	42	42	42	42	42	42	42
SUBNORM	Pearson Correlation	.456(**)	.193	.450(**)	1	.388(*)	-.103	.576(**)	.317(*)
	Sig. (2-tailed)	.002	.221	.003		.011	.515	.000	.041
	N	42	42	42	42	42	42	42	42
PERBC	Pearson Correlation	.461(**)	.436(**)	.527(**)	.388(*)	1	.040	.328(*)	.221
	Sig. (2-tailed)	.002	.004	.000	.011		.803	.034	.159
	N	42	42	42	42	42	42	42	42
FULLUSE	Pearson Correlation	.245	-.007	.007	-.103	.040	1	.110	-.028
	Sig. (2-tailed)	.118	.965	.965	.515	.803		.487	.863
	N	42	42	42	42	42	42	42	42
ACTUAL	Pearson Correlation	.426(**)	.469(**)	.228	.576(**)	.328(*)	.110	1	.249
	Sig. (2-tailed)	.005	.002	.146	.000	.034	.487		.111
	N	42	42	42	42	42	42	42	42
SELPRE DICT	Pearson Correlation	.652(**)	.288	.464(**)	.317(*)	.221	-.028	.249	1
	Sig. (2-tailed)	.000	.064	.002	.041	.159	.863	.111	
	N	42	42	42	42	42	42	42	42

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

1st Regression

Notes

Output Created	26-JAN-2008 23:04:55	
Comments		
Input	Data	C:\Documents and Settings\Emil Robert Kaburuan\Desktop\3.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax	<pre>REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ATTOB /METHOD=ENTER PU PEOU .</pre>	
Resources	Elapsed Time	0:00:00.02
	Memory Required	2828 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PEOU, PU(a)		Enter

a All requested variables entered.

b Dependent Variable: ATTOB

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583(a)	.340	.306	.56057

a Predictors: (Constant), PEOU, PU

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.306	2	3.153	10.033	.000(a)
	Residual	12.255	39	.314		
	Total	18.561	41			

a Predictors: (Constant), PEOU, PU

b Dependent Variable: ATTOB

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.037	.495		4.115	.000
	PU	.491	.146	.515	3.357	.002
	PEOU	.091	.124	.113	.734	.468

a Dependent Variable: ATTOB

2nd Regression

Notes

Output Created	26-JAN-2008 23:06:42	
Comments		
Input	Data	C:\Documents and Settings\Emil Robert Kaburuan\Desktop\3.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax	<pre>REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FULLUSE /METHOD=ENTER PU ATTTOB SUBNORM PERBC .</pre>	
Resources	Elapsed Time	0:00:00.02
	Memory Required	3444 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PERBC, SUBNORM, PU, ATTTOB(a)		Enter

a All requested variables entered.

b Dependent Variable: FULLUSE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.359(a)	.129	.035	.69161

a Predictors: (Constant), PERBC, SUBNORM, PU, ATTTOB

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.624	4	.656	1.371	.263(a)
	Residual	17.698	37	.478		
	Total	20.321	41			

a Predictors: (Constant), PERBC, SUBNORM, PU, ATTOB

b Dependent Variable: FULLUSE

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	3.832	.875		4.381	.000
	PU	.427	.197	.429	2.165	.037
	ATTOB	-.141	.214	-.135	-.658	.515
	SUBNORM	-.308	.231	-.240	-1.333	.191
	PERBC	.007	.216	.006	.031	.975

a Dependent Variable: FULLUSE

3rd Regression

Notes

Output Created	26-JAN-2008 23:07:36	
Comments		
Input	Data	C:\Documents and Settings\Emil Robert Kaburuan\Desktop\3.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	42
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax	<pre> REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ACTUAL /METHOD=ENTER FULLUSE PERBC . </pre>	
Resources	Elapsed Time	0:00:00.00
	Memory Required	2828 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PERBC, FULLUSE(a)		Enter

a All requested variables entered.

b Dependent Variable: ACTUAL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342(a)	.117	.072	.89118

a Predictors: (Constant), PERBC, FULLUSE

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.098	2	2.049	2.580	.089(a)
	Residual	30.974	39	.794		
	Total	35.071	41			

a Predictors: (Constant), PERBC, FULLUSE

b Dependent Variable: ACTUAL

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.352	1.130		2.081	.044
	FULLUSE	.128	.198	.098	.648	.521
	PERBC	.491	.229	.324	2.150	.038

a Dependent Variable: ACTUAL

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Curriculum Vitae

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Formal Education

2006 – 2008 : Master of Arts in Christian Communication at Fairbanks International School of Communication – Philippines.
 1998 – 2004 : Bachelor of Engineering in Chemical Engineering at University of Sumatera Utara – Indonesia.

Work Experience

2007 – Present : Executive Assistant to the Director of Donald Owen School of World Mission – Philippines.
 2007 : Media Laboratory Supervisor at Asia-Pacific Nazarene Theological Seminary – Philippines.
 2006 : Distribution Sales at PT. Galasolusi Dinamindo Kreatifdata – Indonesia.
 2005 : Communication Officer at Bersama Membangun Aceh Foundation – Indonesia.
 2005 : Field Service Engineer at PT. Luas Birus Utama (Starborn Chemicals) – Indonesia.
 2003 – 2005 : Sales Executive at PT. Terra Computer System – Indonesia.

Ministry Experience

2006 – Present : Team workers at Spring of the Spirit Ministry – Philippines.
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- 2005 : Campus Ministry Chairman at Gereja Kristen Kemah Daud Pekanbaru – Indonesia.
- 2000 – 2004 : Facilitator for the Interdenominational Youth Leaders Network Fellowship in Medan – Indonesia.
- 1999 – 2004 : Youth Ministry Department Chairman at Gereja Kristen Kemah Daud Medan – Indonesia.
- 1999 : Chairman of the Committee for Future LeAders Meeting and Empowering (FLAME) in Medan – Indonesia.
- 1999 – 2003 : Founder and Committee Member for Selamatkan Generasi Foundation (Pro-life Foundation) in Medan – Indonesia.
- 1998 – 1999 : Student' Ministry Coordinator at Gereja Kristen Kemah Daud in Medan – Indonesia.

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- 2006 – Present : Indonesian Christian Fellowship in Metro Manila (PMKI) – Philippines.
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