DETERMINANTS OF CONTINUANCE USAGE INTENTION OF SOCIAL NETWORK SERVICES IN MALAYSIA

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research report is 10844 words.

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LIST OF ABBREVIATIONS

CUI	Continuance Usage Intention
DV	Dependent Variable
EE	Effort Expectancy
ECM	Expectation Confirmation Model
ECT	Expectation Confirmation Theory
et al	and others
HM	Hedonic Motivation
IS	Information System
IT	Information Technology
IV	Independent variable
PU	Perceive Usefulness
S	Satisfaction
SI	Social Influence
SNS	Social Network Services
UTAUT	Unified Theory of Acceptance and Use of Technology
UTAUT2	The Extension of Unified Theory of Acceptance and Use of Technology

PREFACE

In this era of technology revolution, one cannot lives without electronic gadgets, computers and ultimately, the Internet. The internet has caused dramatic change in variety of distinct to stimulate the productivity growth, including : reducing the transaction cost of business activities, increasing management efficiency as well as increasing effectiveness of marketing and advertising. Social network services (SNS) tend to gain its popularity in recent years. Examples of SNS are Facebook, Twitter, Youtube and so on. They served as an excellent tool for people to share their status, information, and to communicate with friends and families. Therefore, SNS is now becoming a perfect medium for business companies to conduct their business activities and promotions. In the meantime, it also serves as a platform for customers to obtain related information about certain product or services and to interact with the sellers.

Based on past studies, we knew that the number of users of SNS is increasing tremendously. Nevertheless, less people are studying on the continuance usage intention of users towards SNS. Hence, we conducted this study to investigate on the determinant(s) that affect the continuance usage intention of SNS based on Expectation Confirmation Model (ECM) and Unified Theory of Acceptance and Use of Technology 2 (UTAUT2).

ABSTRACT

Today, the emergence of social network services (SNS) has brought a great impact to the business world. Retaining users and facilitating the continuance usage intention are crucial to the success of SNS. This study is therefore carried out to examine on the factors that influence the users' to continue using SNS in Malaysia. A few models regarding information technology which include Expectation Confirmation Model and Extension of Unified Theory of Acceptance and Use of Technology have been adopted to study on the continuance usage intention of SNS. By integrating both the models, we able to come out with a framework consists of perceived usefulness, satisfaction, social influence, hedonic motivation and effort expectancy which is expected to have a significant impact on the continuance usage intention of SNS in Malaysia. From the results of Multiple Regression Analysis (MRA), we found out that all these variables are having significant relationship with the continuance usage intention of SNS in Malaysia except for social influence. Although there is no moderator proposed in our framework, the results suggested that there are also some relationships between the gender, frequency of using SNS and educational level towards the intention of continue using SNS in Malaysia. Therefore, a further study may be required to investigate on these demographic profiles of the respondents in Malaysia. This paper is concluded with several important applications for both the theory research and the implementation of strategies by the managers.

CHAPTER 1 RESEARCH OVERVIEW

1.0 Introduction

In chapter one, we will discuss about the overview of our research project which includes research background, research problem, research objectives, significance of study and conclusion.

1.1 Research Background

The research towards the leading factors between individual adoption and information technology (IT) is a long term research concern in the literature of information systems (IS) (as cited Taylor & Todd, 1995). Booz & Company (2012) forecasted that the social commerce sector will generate sales of $30 billion annually in year 2015 (as cited in Ng, 2013). Based on Huang & Benyoucef (2013), in electronic commerce, social commerce is more developed. Moreover, IDC consulting firm estimated that 10 to 15% of the consumer's spending in year 2011 to 2015 will goes into social network services (SNS) (as cited in Ng, 2013). Furthermore, Facebook is the top social network site with around 1.1 billion monthly visitors ("Top 15", 2016). This shows that many people are using SNS and it represents a profitable market for e-commerce in the future.

Social network websites allow millions of users to express their feelings and ideas by creating a network of connecting each other in the cyber world (Chai & Kim, 2012). According to Brenner (1997), the users of SNS will get addicted to it when they use it excessively or without control. In this era of high technology, the rapid development of information system has influenced more people to become more aware of the importance of SNS and acceptance towards it (Bhattacherjee, 2001). SNS is defined as an online service which helps the users to make interaction with others (Boyd & Ellison, 2008). The most common SNS include Facebook, Twitter, YouTube, LinkedIn and others (Xu, Lin & Haridakis, 2015). With the presence of SNS, people nowadays are able to communicate with friends virtually, enter their personal information, send messages and share photos and videos with their friends (Boyd & Ellison, 2007; Lewis, Kufman, Gonzalez, Wimmer & Christakis, 2008; Liu, 2007). Apart from that, the users of SNS are also able to talk about what is happening around their daily lives and these casual talks will usually lead to brand recommendation or electronic word-of-mouth (Okazaki, Rubio & Campo, 2014).

1.2 Research Problem

In the past, most of the e-commerce organizations are focusing on the initial adoption of their customers to use the SNS and they pay less attention toward the post-adoption situation where an individual decided to continue or discontinue using a SNS. It can only be concluded that the SNS adoption is successful when the post-adoption usage of the SNS was confirmed (as cited in Ng, 2013).

According to Bhattacherjee (2001), the ultimate viability of SNS is a dependent variable of a user's continuance usage of SNS. If the passion of users towards the initial adoption of SNS gone after gaining experience from using the SNS, then the SNS usage will decreases and eventually stops. When this issue occurs, the

developers of IT have to stop their investments for future development of SNS. Meanwhile, a higher user retention rate can substantially reduce the operating costs and dramatically increase the profits in organizations (Crego & Schiffrin, 1995; Reinchheld & Sasser, 1990). Apart from that, the electronic word-of-mouth (eWOM) generated from SNS also plays a significant role on whether they will continue to use them as a platform to search for information before they purchase a product or service through online (Okazaki et al., 2014).

For most of the B2C e-commerce organizations, the continuance usage intention (CUI) plays a vital role in affecting the profitability of business companies in long-run (Bhattacherjee, 2001; Reichheld & Schefter, 2000). According to Bolton, Lemon & Verhoef (2004), most of the companies are focusing on the user's continuance intention to use a product or service instead of the acceptance because the cost involved in acquiring a new customer may cost more than five times in retaining the current one. Therefore, the continuance intention of users towards social network service has become relatively important as it can help the company to maintain a long-term profitability.

1.3 Research Objective

1.3.1 General Objective

The main purpose of this research is to investigate the social network users' continuance usage intention of social network services (SNS).

1.3.2 Specific Objective

1. To investigate the relationship between the perceived usefulness and social network users' continuance usage intention of SNS.
2. To investigate the relationship between the satisfaction and social network users' continuance usage intention of SNS.
3. To investigate the relationship between the social influence and social network users' continuance usage intention of SNS.
4. To investigate the relationship between the hedonic motivation and social network users' continuance usage intention of SNS.
5. To investigate the relationship between the effort expectancy and social network users' continuance usage intention of SNS.

1.4 Research Question

According to the research objectives, we have provided some questions to be answered upon the completion of the research as following:

1. What are the determinant(s) of continuance usage intention?
2. What are the relationship between the determinant(s) and continuance usage intention of SNS?
3. Which determinant(s) has positive effect on continuance usage intention of SNS?
4. Which is the most important determinant in influencing continuance usage intention of SNS?

1.5 Research Significant

This research is important for practitioners to understand the SNS concept and the social network users' continuance intention to use the SNS. For business company, they can know the benefits of using SNS as a communication tool. It helps the social network media provider to retain their users with specific applicable knowledge and information. They will gain the knowledge and understand about the customer satisfaction and the expectation of users towards SNS. Practitioner can increase the competitive advantages in offering SNS. Vendors able to design the content and think of strategies to enhance the users' continuance intentions to use the SNS by improving on their services to retain the customers. Besides, policy makers can interact with people more frequently and closely through SNS and understand the users' behaviour on SNS. They able to know the topics that have been discussed by the people and the social trends of the country. In addition, they able to determine why the people have the intention to continue to using SNS as a platform to voice out their opinions and ideas. Finally, community can understand more about SNS by identifying the variables that influenced them to continue using the SNS. Hence, this research provides a better insight for the people to understand their own behaviours on using the SNS.

From the academic's perspective, the readers can have better understanding about SNS and the factors influencing the social network users' continuance intention to use it. Next, this study may also acts as a reference for other researchers to study on the CUI of SNS. There are rarely available past research papers that discussed on the post-adoption of SNS as mostly are discussing on the pre-adoption of SNS. This paper will add more available resource information to examine on the factors influencing social network user's to continue using SNS. Readers able to know the reasons why people intent to continue using SNS or vice versa.

1.6 Conclusion

This chapter explained the trends of social networks and had discussed some issues on the CUI of SNS. A detailed explanation on the determinants of social network users' CUI of SNS will be further discussed in chapter two by reviewing on the past research literature and theories.

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction

This chapter discusses about the relevant theoretical theories and review the relevant literature, proposed the research framework and hypothesis to examine the factors influence continuance intention on using SNS. A framework is formed and hypothesis is developed for each independent variable and CUI in Malaysia.

2.1 Review of Relevant Theoretical Models

2.1.1 Expectation Confirmation Model (ECM)

Expectation Confirmation Model (ECM) was developed from Expectation Confirmation Theory (ECT). ECT is a cognitive theory which stated the post-purchase and post-adoption satisfaction of product or services offered. In the ECT framework proposed by Oliver (1980), before purchasing a product, customers will form an initial expectation towards certain product or service. Next, they will accept and using that particular product or service. Perception will be formed during their initial consumption. Through the original expectation, they will assess the perceived performance and identify the extent

to which their expectation is confirmed (Confirmation). Satisfaction will be formed depending on their confirmation level and expectation towards their experience. Dissatisfied users will stop to repurchase while satisfied customer will continue to have repurchase intention. When a lower expectation is formed but get a higher performance in return, it will lead to positive customer satisfaction because of greater confirmation (Bhattacherjee, 2001). According to Bhattacherjee (2001), he developed expectation confirmation model in Information Technology (IT) context based on Expectation confirmation theory to understand consumers' usage behaviour in IT context. Users' CUI in IT is assumed to be same as consumers' repurchase decision because it remains as an initial acceptance or purchase decision. First use experience will influence CUI and it is possible to have effect on ex post reversal of the initial decision. Besides, there are several researchers that applied ECM in their researches of SNS, mobile services, e-commerce and e-learning (Hong, Tong, & Tam, 2006; Shaikh & Karjaluoto, 2015) to identify the CUI. User's IT CUI is formed due to the factors of user satisfaction and perceived usefulness (Yoon & Rolland, 2015). Expectation is a primary level where confirmation acts as evaluation towards consumer expectation. ECM mainly focuses on the post-acceptance variable due to the impacts of pre-adoption had been captured into confirmation and satisfaction construct. With the issue of changes on IS usage expectation, measurement on post-consumption (ex-post) more preferable than pre-consumption expectation (ex-ante). In the model, (ex-post) perceived usefulness had replaced (ex-post) expectation (Oghuma, Libaque-Saenz, Wong & Chang, 2015). There are three dimensions in ECM construct which developed from ECT in CUI of IT. They are post adoption expectation (perceived usefulness), confirmation of expectations, and satisfaction (Chen, Liu, & Lin, 2013; Hong et al., 2006). An individual will have the intention to continue using certain IS and technology product or service after satisfaction is formed and it is useful for him.

2.1.2 Extending the Unified Theory of Acceptance and Use of Technology (UTAUT2)

UTAUT2 is an extension of UTAUT. Based on the reviewed papers, UTAUT was developed in year 2003 by Viswanath Venkatesh. In this theory, understanding an individual acceptance is the most important component in the research of IS and also the use of IT (Benbasat & Barki, 2007; Venkatesh, Davis & Morris, 2007). The researchers adopted these theoretical models to explain technology acceptance and use. The main variables that construct UTAUT are facilitating conditions, performance expectancy, social influence, and effort expectancy. These four variables in UTAUT are said to have effects on the adoption of a particular technology and performance expectancy is the strongest predictor of behavioural intention (Venkatesh, Morris, Davis & Davis, 2003). In addition to that, a research conducted by Morris, Venkatesh and Ackerman (2005) shows that age, gender, experience, and social influence has interaction effects towards using a technology that moderate various UTAUT relationships.

The extension of UTAUT (2012) has included some new constructs such as hedonic motivation, price value and habit. These constructs are meant to expand the scale of the old UTAUT. According to Holbrook and Hirschman (1982), hedonic motivation is considered as key predictors in the scale of consumer behaviour. Effort expectancy is defined as the degree of relief correlative with consumers' usage of technology while the price is an important factor in consumer technology use context which consumers have to bear for the cost of such use. For instance, researchers found that the population who adopting short messaging service (SMS) is regarding to the service pricing of the mobile internet application (Chan, Gong, Xu & Thong, 2008). Based on the consumer behaviour research, the cost is interrelated to

consumers' actions (Dodds, Monroe & Grewal, 1991). Lastly, the construct of habit had been evaluated as a critical factor in influencing the use of a certain technology. Habit is defined as an individual automatically behaviour through what they had learned and what they believed in (Limayem, Hirt & Cheung, 2007). Individual can form different stages of habit based on individual experience. According to Ajzen & Fishbein (2005), the past experiences will affect an individual's beliefs and behaviour in future.

2.2 Proposed Theoretical/Conceptual Framework

2.2.1 Dependent Variable - Continuance Usage Intention (CUI)

According to Abbas and Hamdy (2015), continuance intention can be determined as the process to continue doing the business and repurchase the products and services from the same organization instead of moving to a competitor. Chang (2012) indicates that the synonym of continuance intention can be called as post-adoption. It is also defined as the continuance for the feature of adoption decision. The measurement of the continuance intention includes loyalty, switch, pay more, external response and internal response (Abbas & Hamdy, 2015). Customers' repurchase intention towards certain product or service is based on their perceptions of service value (Hsu, Chang, & Chuang, 2014). Hernandez-Ortega, Serrano-Cinca & Gomez-Meneses (2014) said that continuance intention has a strong relationship with other concepts like perceptions and it is also essential to predict the customer's future behaviour.

2.2.2 Independent variable - Perceived Usefulness (PU)

Based on Technology Acceptance Model (TAM), perceived usefulness has direct effect in the using of information system (Bhattacherjee, 2001). Perceived usefulness is defined as the belief of people that using specific IS would improve their job performance (Davis, 1989). Perceived usefulness is also defined as the expected benefits of using Information System from the perception of user (Davis, 1989). The usage intention of people towards certain technology depends on their beliefs whether it will help them perform better in their job. Therefore, perceived usefulness is believed to consistently affect the temporal stage of IS in user's intention (Bhattacherjee, 2011).

2.2.3 Independent variable – Satisfaction (S)

Based on ECT, the previous use of a product or service satisfaction is the customer's intention to re-purchase a product or service (Halilovic & Cicic, 2013). The consumer satisfaction is a main factor that influences consumers to re-purchase a product or service (Lin, Fan & Chau, 2014). Since the user's satisfaction has a positive impact on the continuance intention, there will be some kind of relationships between the consumers' level of satisfaction and consumer's intention to repurchase a product or service (Hong et al., 2006). According to the study of Bhattacherjee (200l), the consumer's satisfaction of previous experience is the main factor affecting the users' continuance intention on using a particular technology.

2.2.4 Independent variable - Social Influence (SI)

Social influence is the extent to which the users perceive their families and friends believe that they should use the SNS to aid in their online purchase (Moore & Benbasat, 1991; Venkatesh & Davis, 2000; Venkatesh et al., 2003; Wang & Wang, 2010). Social influence is the environment element that occurs around the users such as the opinions from parents, friends or even a colleague. It is quite similar to the social norm of the Theory of Reasoned Action (TRA) (Bellaaj, Zekri & Albugami, 2015). The adoption of users toward a high technology product is influenced not only by user's attitude toward the particular product or service but also affected by the socialization forces that came along with the intention to follow the norms of their friends and family (Kulviwat, Bruner & Al-Shuridah, 2009). Since SNS offer an opportunity for customers to purchase through online and is relatively new, it is expected that customers would be more interested at getting feedback from others and tend to rely on others perception of using SNS to aid in their online purchasing (Yang & Forney, 2013).

2.2.5 Independent variable - Hedonic Motivation (HM)

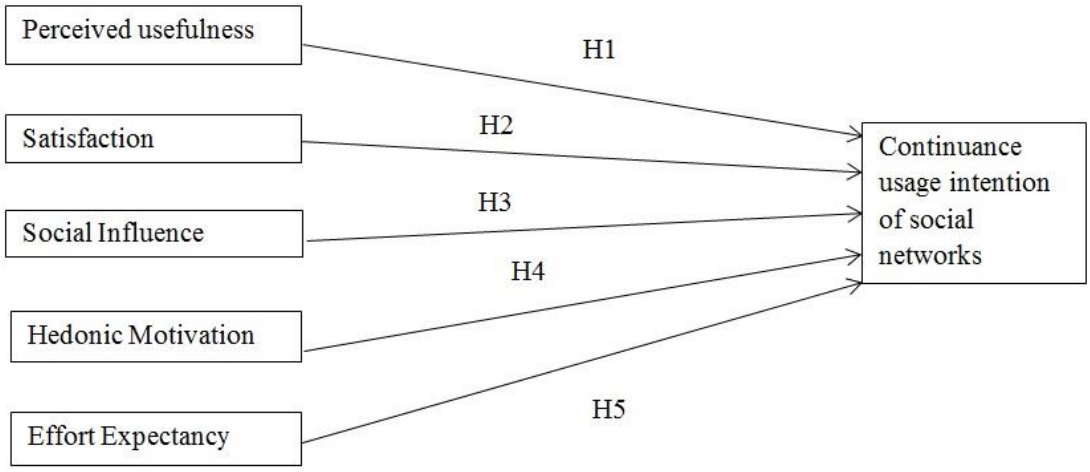
Hedonic motivation is defined as a feeling of fun and joy when an individual is using SNS. According to Thong, Hong & Tam (2006), there are a lot of users use the technologies for fun and enjoyment compared to the enhancement of performance in their jobs. Besides, hedonic motivation is a significant part in determining acceptance of a technology (Brown & Venkatesh, 2005; van der Heijden, 2004; Thong et al., 2006). Hedonic motivation usually conceptualized as perceived enjoyment in IS research. However, there are limited reports for its impact on user adoption behaviour if

compared to other constructs like perceived usefulness (van der Haijden, 2004). Hedonic motivation has been added as a predictor of continuance intention to use the SNS (Venkatesh, Thong & Xu, 2012) and this type of motivation is expected to influence a person's CUI of SNS. Besides, there is an empirical study showing that hedonic motivation plays an essential role in assuming the intentions of IT usage (Venkatesh et al., 2012).

2.2.6 Independent variable - Effort Expectancy (EE)

Effort expectancy can be explained as degree of ease or effort when using particular IS (Venkatesh et al., 2003; Venkatesh et al., 2012). Effort expectancy is identical to perceived ease of use as proposed by Davis (1989). Besides, Al-Qeisi, Dennis, Alamanos & Jayawardhena (2014) treats "effort expectancy" in the UTAUT as conceptually equivalent to "ease of use" in TAM. Additionally, Davis, Bagozzi & Warshaw (1989) stated that the success of adoption of SNS depends on the effort expectancy. Effort expectancy refers to users who perceive that using certain IS does not require any significant effort or frustration (Tseng, 2015).

Figure 2.1: Proposed Theoretical/Conceptual Framework



Source: Developed for the research

2.3 Hypotheses Development

Perceived usefulness has been considered as one of the most important factor in determining user's intention to use certain product or service (Taylor & Todd, 1995). Perceived usefulness is one of the main elements towards the acceptance in IS. Nevertheless, it is expected that it can also affect subsequent continuance decisions towards systems and technologies (Bhattacherjee, 2001). Besides, it is said that there will be positive effects of perceived usefulness on the social network users' CUI from the Expectation Confirmation Model (ECM) (Thong et al., 2006). According to Halilovic & Cicic (2013), the ECM assumes CUI is due to user's satisfaction level towards particular information system, confirmation level and expectation after initial acceptance. Perceived usefulness tends to influence CUI on SNS such as Twitter (Barnes & Bohringer, 2011), Facebook (Mouakket, 2015), cloud storage service

(Yang & Lin, 2015), blog learning (Tang, Tang & Chiang, 2014) and mobile instant messaging (Oghuma et al., 2016). Thus, the hypothesis is formed as follow:

H1: There is a significant relationship between perceived usefulness and continuance usage intention of SNS in Malaysia.

Users' satisfaction has a positive effect on the CUI (Thong et al., 2006). Satisfaction on previous use of service can be determined as customers' intention to repurchase a service. According to Hsu et al. (2014), customers always possess strong repeat purchase intention when they satisfied with a product or service. Customers may not continue to use a particular product or service if they are not satisfied with it. Eventually, they will switch to its competitor (Gao, Waechter & Bai, 2015). Besides that, customer satisfaction can be defined as individual feeling for comparing between the performances relative to expectation. Customers tend to have continuance intention to repurchase if they are satisfied with it (Pereira, Ramos, Gouvea & Costa, 2015). By referring to the literature about satisfaction, the level of customer satisfaction is the factor that influences them to continue using or repurchasing a particular product or service (Parthasarathy & Bhattacherjee, 1998). This leads to the formulation of the hypothesis below:

H2: There is a significant relationship between satisfaction and continuance usage intention of SNS in Malaysia.

Many studies have shown that social influence plays a vital role in the CUI of a certain technology (Moore & Benbasat, 1991; Venkatesh & Davis, 2000). It happens when a person perceive that others believe that they should continue to use SNS before going to purchase through online (Venkatesh et al. 2003). When people that are important to the users recommend them to use SNS, they may comply with their suggestions and continue to use it (Zhou, 2012). Social influence is somehow related to the subjective norms as mentioned in the Theory of Planned Behaviour (Ajzen, 1991). Subjective norms contain implicit and explicit notions that person behaviour will be affected by the way in which they believe that their families and friends will view them as a result of continuously using SNS (Jeng & Tzeng, 2012). Hence, we proceed with the hypothesis as follow:

H3: There is a significant relationship between social influence and continuance usage intention of SNS in Malaysia.

Hedonic motivation is conceptualized as perceived enjoyment which affect technology acceptance and usage (van der Heijden, 2004; Thong et al., 2006). A key user's belief that affects the satisfaction is regarding the expectation of advanced experience when using a technology (Venkatesh et al., 2012). Besides, satisfaction in previous experience has a major effect in continuance intention (Bhattacherjee, 2001). Following the trend of market, there are more technologies designed to meet the various type of consumer needs. Thus, it is more preferable on post-adoption level of enjoyment. Moreover, there is a study found out that hedonic motivation is the key element of CUI of PCs (Davis et al., 1992). According to van der Heijden (2004), hedonic motivation has a direct effect on the consumers' intention towards the web service usage. Next, there is a similar study shows that the hedonic motivation has indirect impact on the intention. Users who feel joyful from using a SNS will not perceive the using of SNS as effortful (Sun & Zhang, 2004; Venkatesh & Davis, 2000; Venkatesh, Speier & Morris, 2002; Yi & Hwang, 2003). Therefore, hedonic

motivation is important in building a user's satisfaction towards the use of certain technology. The hypothesis is formed as follow:

H4: There is a significant relationship between hedonic motivation and continuance usage intention of SNS in Malaysia.

Effort expectancy is defined as free of effort in using SNS from consumers' perspective. According to Venkatesh et al. (2012), he found that effort expectancy is influencing the CUI in technology. It is an individual's decision to accept a technology well beyond its first use and continuously exploit the functionality of technology (Bhattacherjee, 2001). According to Biemans, Swaak, Hettinga and Schuurman (2005), they found that the effort expectancy is a high predictor of CUI through a research that conducted among nurses. In that research, the CUI towards the use of Medical Teleconferencing Application was measured. Apart from that, it is also found that effort expectancy predicts the use intention through a cross-cultural study of IT adoption (Oshlyansky, Cairns & Thimbleby, 2007). Thus, we formulated the hypothesis as below:

H5: There is a significant relationship between effort expectancy and continuance usage intention of SNS in Malaysia.

2.4 Conclusion

Referring to the prior research, chapter two had identified several relevant theoretical models and developed a research framework for the relationship between each IV and DV. In the following chapter, methods used to conduct our research will be discussed.

CHAPTER 3 METHODOLOGY

3.0 Introduction

In this chapter, we will explain on research design, method of data collection, and sampling design. Also, we will identify research instrument, measurement of construct, data processing steps and data analysis.

3.1 Research Design

Market research is generally divided into qualitative research and quantitative research. In our case, quantitative approach will be used to conduct the research as it is more suitable to measure and analyse the objectives of this study.

3.1.1 Quantitative Research

Through quantitative research, we able to identify the relationships between all the IVs with the DV which in turn allows us to compare between our hypotheses. Quantitative research is concern about collecting numerical data for a certain phenomenon or a particular question ("Introduction to quantitative research," 2010). In addition, this method permits broader study

as it enables us to target a larger population and allows us to translate the data collected into easier form such as table, chart or graph.

3.1.2 Descriptive Research

When doing online surveying, descriptive research is the most commonly method used by researchers (Penwarden, 2014). Therefore, descriptive research is applied to study the possible correlations between two or more variables. The main reason why we choosing descriptive research for our study is because all the variables in this study have been identified, thus there is no need for us to carry out the casual research. Descriptive research allows us to collect the data that help us to describe certain individuals, groups or situations (Polit & Hungler , 1999).

Instruments used include questionnaires, interviews and observation (Polit & Hungler, 1999). For our descriptive research, survey using questionnaires would be used to collect the data for our study. Self-administered survey will be used as this survey is done in an environment without the influence or pressure of the interviewer. Hence, no bias would be injected in the way questions are asked. However, the low and inconsistent return rate and results are the issues we need to concern about when we collecting the data.

3.2 Data collection method

3.2.1 Primary data

267 sets of survey are distributed through online to our target respondent. Online questionnaire approach is used because we found that most of the SNS users have an account on Facebook and they spent most of their time surfing on it. Facebook is one of the top SNS with over one billion users all around the world and an average of 864 million daily active users (Andreassen & Pallesen, 2013). In addition, since we are doing on the continuance intention of SNS, we believe that Facebook would be the best medium for us to distribute our questionnaire.

The target respondent for our research will be the users of SNS in Malaysia. In order to distribute our online questionnaire, each of us will send the questionnaire to our friends and family through private message in the Facebook. What they need to do is just click at the link and they will be redirected to the online questionnaire website. This makes that target respondent to be more convenient when filling the questionnaire. By distributing the questionnaire through Facebook, it enables us to reach a wider range of target respondent and to get more precise data.

3.2.2 Secondary data

Based on Burns and Burns (2014), secondary data refers to the data which had previously been gathered by someone other than the researcher for certain purpose. Several database resources had been accessed to acquire relevant information for our study through Universiti Tunku Abdul Rahaman Library OPAC system. The examples are Ebscohost, ProQuest, JSTOR, Science Direct, and Emerald. These resources included journals from MIS Quarterly, Information Systems Research, Journal of Decision Sciences and Decision Support Systems. Electronic article, reference books are the other sources for our secondary data collection.

3.3 Sampling Design

3.3.1 Target Population

According to Burns and Bush (2014), population is a group of people to be studied by researchers for certain research objectives to get certain results. The target population for our study is SNS users in Malaysia.

3.3.2 Sampling Frame and Sampling Location

The sampling frame is a major ingredient of the overall sampling design. However, there is no sampling frame available because no agency is having the information data of people using SNS services. There is also no sampling location as well since our research will be conducted through online internet and SNS.

3.3.3 Sampling Element

Our target respondent includes working adults and students who have the experience of using SNS. It is observed that the percentage of users that fall between age 20-24 has the highest proportion (24.2%), followed by age of 25-29 (19.3%), 15-19 (13.9 %) and 30-34 (13.1%) (Malaysian Communications and Multimedia commission, 2015).

3.3.4 Sampling Size

The sample size of our study is 267 respondents. According to MacCallum, Widaman, Zhang and Hong (1999), when sample size increases, the variability in factor loadings across repeated samples will also decrease. For instance, the loadings will have smaller standard errors. Therefore, the larger

the sample size, the smaller the sample error. In other words, the results will be more accurate when a larger sample size is used (Burns & Bush, 2014). In our study, the confident interval approach is used to determine the sample size. Confident interval approach applies the concepts of accuracy (sampling error), variability, and confident interval to create a "correct" sampling size (Burns & Bush, 2014).

Due to uncertainties towards unknown variability, we are using the 50 = 50 "worst case" approach. According to Burns and Bush (2014), the variability of 50%/50% is the most conservative method because it results in the largest possible sampling size from the calculations. We are using sample error of ±6% at 95% confidence level to ensure that our result is reliable for our study ("What Every Researcher," 2008). The typical approach used in marketing research is standard deviation of 95% as the confident level which in turns translate into a *z* of 1.96 (Burns & Bush, 2014).

Using the formula of sample size, n is calculated as follow:

$$n = \frac{z^2 (pq)}{e^2}$$

$$= \frac{1.96^2 (50)(50)}{6^2}$$

= 267 respondents

Where

n = sample size

z = standard error associated with the chosen level of confidence

p = estimated percent in the population

q = 100-p

e = acceptable sample error expressed as percent

3.3.5 Sampling Technique

Non-probability sampling technique will be applied due to some limitations in terms of time, money and workforce.

Convenience sampling would be one of the non-probability sampling techniques used in our study. The main reason why we using convenience sampling are because of expedited data collection and cost effective. Through convenience sampling, it allows us to rapidly gather the data and start doing our calculations. Apart from that, there is minimal overhead involved by using convenience sampling. There is no elaborate setup and the funds can be allocated for the other aspects of this project.

Judgment sampling needs a judgment or an "educated guess" as who to be the population (Burns & Burns, 2014). We distributed the questionnaires based on our judgment to the respondents who possess the characteristic of having at least one SNS account such as Facebook. We will deliver the survey through Facebook as most of the respondents are considered to have the potential characteristic required by the research.

3.4 Research Instrument

3.4.1 Questionnaire Design

Section A of the questionnaire asks about the demographics of the respondents. It includes gender, age, highest academic level and monthly income level, frequency and duration of using SNS per week. Nominal scale was applied to the questions in this section.

Meanwhile, Section B of the questionnaire consists of questions about the independent variables and CUI of SNS. The determinants (independent variables) that influence the CUI of SNS are perceived usefulness, satisfaction, social influence, hedonic motivation and effort expectancy. Likert scale has been applied to the questions in this section. It is a five-point scale which ranging from Strongly Disagree to Disagree, Neutral, Agree and Strongly Agree. This scale of measurement used because it is easy to be understood by the respondents and also easier for us to construct the questionnaire.

3.4.2 Pilot Test

A pilot test was conducted among 30 lecturers in UTAR. They were invited to fill up the questionnaire and also give their opinions to improve on it. We had used person-administered survey method to distribute the questionnaires for this pilot test. Through this method, we can get further information from the

lecturers face-to-face. Besides that, we are also able to find out the weaknesses and potential errors in the questionnaires and make corrections for them.

3.5 Constructs Measurement

Each construct was measured using 5-point Likert scale. According to Luarn and Lin (2005), to ensure content validity of the measurements used, it is advised to largely adapt the items for each variable from prior researches. Hence, all the variables in this study were accessed with items adapted from existing literatures. It has been summarized into the table in Part 3.5.1.

3.5.1 Origin of Source of Measurement

Table 3.1: Origin of Constructs

Construct	**Adapted from**
Perceived usefulness	(Davis et al., 1989) (Ventakesh et al., 2003)
Satisfaction	(Lee, 2010) (Hsu et al., 2014) (Hsu & Lin, 2014)

Social influence	(Ventakesh et al., 2003) (Mathieson, 1991) (Brown & Ventakesh, 2005) (Kim, 2010)
Hedonic motivation	(Venkatest et al., 2012) (Babin et al., 1994) (Babin & Attaway, 2000) (Batra & Ahtola, 1990) (Ryu, Han, & Jang, 2008)
Effort expectancy	(Ventakesh et al., 2003) (Davis, 1989) (Taylor & Tod, 1995) (Moore & Benbasat, 1991). (Tseng, 2015)
Continuance usage intention	(Yin, Liu & Lin, 2015) (Roca, Chiu & Martinez, 2006) (Bhattacherjee, 2001) (Gao et al., 2015)

Source: Developed for the research

3.5.2 Measurement of Constructs

Table 3.2: Measurement of Construct

Constructs	Sample Items
Perceived usefulness	1. Using social network services enables me to acquire more information or know more people. 2. Using social network services improves my efficiency in sharing information and connecting with others. 3. The social network services are useful services for interaction between others. 4. The advantages of this social networking site outweigh the disadvantages. 5. Overall, the social network services are useful.
Satisfaction	1. My overall experience of social network services use was very satisfying. 2. Using social network services make me sense of enjoyment. 3. I am pleased with the performance of social network services. 4. My decision to use social network service was a wise one. 5. I feel good regarding my decision to use social network service.
Social Influence	1. My family members think that I should continue use social network services. 2. My friends think that I should continue use social network services.

	3. People I know think that using social network services is a good idea. 4. People who influence my behavior think that I should continue use social network services. 5. People whose opinions that I value prefer that I continue to use social network services.
Hedonic motivation	1. Using social network service is fun. 2. Using social network services is enjoyable. 3. Using social network services is very entertaining. 4. I could have good feeling while using social network service. 5. I felt the excitement of using social network service.
Effort expectancy	1. Learning how to use social network services is easy for me. 2. My interaction with social network services is clear and understandable. 3. I find social network services easy to use. 4. It is easy for me to become skilful at using social network services. 5. Social network services user interface is very user friendly,
Continuance usage intention	1. I intend to continue use of social network services in the future rather than discontinue its use. 2. My intention is to increase my use of social network services in the future.

	3. I will keep using social network services as regularly as I do now. 4. I will frequently use of social network services in the future. 5. I will strongly recommend others to use social network services.

Source: Developed for the research

3.5.3 Primary Scale of Measurement

3.5.3.1 Nominal Scale

Nominal scale is able to measure different characteristics. It is used for labelling variables without any quantitative value. It can be classified into different categories such as gender, yes/no, pass/fail (Fife-Schaw, 2006). In this research, the questions in section A are asked in the form of nominal scale.

3.5.3.2 Likert Scale

Likert scale is a rating scale which measures the degree of agreement of an individual towards a particular statement. It consists of at least five response categories. In general, respondents will rank the quality from high to low or from best to worst (Allen & Seaman, 2007). In Section B of the questionnaire,

Likert scale is designed as 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

3.6 Data Processing

Data processing steps are shown as following:

Table 3.3: Data Processing Steps

Process	Description
Questionnaire Checking	A pilot study was carried out to test the protocols, strategies, instruments and techniques of the study (Hassan, Schattner & Mazza, 2006). 30 sets of questionnaires are adequate to run this study (Hill, 1998). The feedback obtained will used to enhance the questionnaire.
Data Editing	Data editing is defined as a process to ensure the consistency, accuracy and reliability of the primary data gathered during data collection activities (Nikhil, 2009). According to Nikhill (2009), questionnaire may lacks of conformity after the data has been collected. In the questionnaire, those ambiguous words and redundant questions are amended or edited to improve the accuracy of data obtained. Besides, unfavorable or unrelated responses from some respondents will be filtered out during our data analysis.
Data Coding	Data coding is defined as a process where numerical values are given to the responses for each question that involved in the questionnaire (Kothari, 2004). It allows researchers to convert the alphanumeric codes into numeric code which can be more easily interpreted and quickly analyzed by computer software (Buckley, 1997). In our research, we are encoding the data collected into numerical data in the SAS software.

Data Transcription	Data Transcription is a way to transfer source of data to SAS software. After encoding, we can directly transfer the data to SAS software without the need to gather the raw data again.
Data Cleaning	Data cleaning is a procedure of checking the consistency, reliability and accuracy of the raw data to ensure there is no missing information, miscoding data, or invalid data. During this stage, consistency checking will be conducted to determine whether the data collected are logically inconsistent or have any outlier existed. If these problems were found out during cleaning process, corrections will be required.

3.7 Data Analysis

Based on Zikmund, Babin, Carr and Griffin (2010), data analysis will be carried out after gone through all the data processing procedures. For our study, data analysis was performed using SAS Enterprise Guide 5.1. It had been used to analyse the data obtained. The results generated by SAS will be converted into statistical tables, histogram, chart, and other usable information. These results allow us to understand the information that has been collected from the survey. Furthermore, data evaluation will be carried out through logical reasoning and methods of analytical such as descriptive and inferential analysis.

3.7.1 Descriptive Analysis

Descriptive analysis is a process of analysing data which occurs in the beginning of the process. It involves translating raw data into interpretable information with description and value which can be easily understand by

researchers (Zikmund, 2003). Frequency distribution analysis will be carried out in this study and the information obtained will be presented in table form after all the analyses had done.

3.7.1.1 Frequency Distribution

Frequency distribution enables researchers to overview the entire data easily by presenting the observation of overall picture that distributed on the scale of measurement (Manikandan, 2011). It is used to summarize, organize and interpret the data into table form. The data will be classified into different groups and the number of observations that obtained in each group will be shown. According to Malhotra and Peterson (2006), frequency distribution intends to link the numbers of responses with different values on one variable in the percentage term. For instance, there are 54% of male and 46% of female engaging in our study on the CUI of SNS.

3.7.1.2 Cross Tabulation

Cross-tabulation is applied to observe the insight information about the joint distribution between two or more categorical variables (Pontius & Spencer, 2005). Section A of questionnaire is about the demographic profiles of the respondents, 6 cross tabulation analyses have been conducted and are used to explain the association between demographics variable and CUI of SNS. Observed values are Chi-square, P-value, Phi Coefficient and Cramer's V. Chi-square shows positive or negative statistics; P-value measures the discrepancy between variables; Phi Coefficient and Cramer's V were used to measure the strength of association between variables. According to Kurtz (1999), Phi Coefficient is measured from values -1.00 to +1.00 and it is only

used when dimension of cross tabulation is 2x2. Otherwise, Cramer's V will be referred when dimension of cross-tabulation is larger than 2x2.

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3.7.2 Scale Measurement

3.7.2.1 Reliability Test

Reliability test is applied to check the consistency and stability for the constructs being measured (Malhotra & Peterson, 2006). Cronbach's alpha is an instrument to measure the consistency among the variety items in the test (Tavakol & Dennick, 2011). Correlation coefficient value for each variable can be determined by using SAS software and it can ranges from zero to one (Cronbach & Shavelson, 2004). A larger value represents higher reliability of an item. The value of 0.6 and above is indicated as the threshold of acceptable reliability (Sim, Tan, Wong, Ooi & Hew, 2014). However, if the value is lower than 0.6, it will be categorized as unsatisfactory reliability (Santos, 1999).

3.7.3 Inferential Analysis

3.7.3.1 Validity Test

Pearson Correlation analysis is a measurement of direction and strength of linear association between IVs and DV (Harring & Wasko, 2011). It normally ranges from -1.0 to +1.0 to show the strength of relationship. A value of -1.0 shows that it is a perfect negative relationship; In contrast, +1.0 shows that it is a perfect positive relationship; Whereas 0 indicates that there is no linear

relationship between the variables. The following guideline will be used to explain on the strength of the correlation.

Table 3.4: Correlation Coefficient Interpretation Guideline

Correlation Coefficient	**Strength of Correlation**
±0.81 - ±1.00	Very strong correlation
±0.61 - ±0.80	Strong correlation
±0.41 - ±0.60	Moderately strong correlation
±0.21 - ±0.40	Weak correlation
±0.00 - ±0.20	Very weak correlation

Source: Adopted from Malhotra, N. K. *Marketing research: An applied orientation* (6th ed.). New Jersey: Pearson.

3.7.3.2 Multiple Regressions

Multiple linear regressions are used to analyse the linear relationship between IVs on a single DV (Zikmund, 2003). The formula is shown as below:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \cdots + b_kx_k$$

In our study, the equation is formed as below:

$$CI = a + b_1PU_1 + b_2S_2 + b_3SI_3 + b_4HM_4 + b_5EE_5$$

Whereby,

CUI = Continuous Usage Intention

PU = Perceived usefulness

S = Satisfaction

HM = Hedonic Motivation

SI = Social Influence

EE = Effort Expectancy

From this equation, we able to recognize which independent variable are having a greater persuasive impact on the dependent variable and vice versa.

3.7.4 T-test

Independent samples T-test was used to determine if there is enough evidence to infer that the means of corresponding population distribution also differ (Burns & Bush, 2014). Folded F value was used to identify whether the variance of two samples are equal. If the variance is equal, we will refer to p-value in Pooled method. If it is unequal, we will refer to the p-value in Satterthwaite method. When the p-value is < 0.05, it shows that there is significant difference between the 2 samples and vice versa.

3.7.5 Analysis of Variance (ANOVA)

ANOVA is a statistical test that is used to analyse the difference among three or more groups (Kucuk, Eyuboglu, Kucuk & Degirmencioglu, 2015). ANOVA has similar characteristics with t-test which test simultaneously and compare means among the several independent variables. However, it is more advanced as it is able to specify the exact difference through the Ryan-Einot-

Gabriel-Welch Multiple Range (REGWQ) test. Besides, ANOVA can also be classified into three different types which are One-way ANOVA, ANOVA models and MANOVA. In our research, one-way ANOVA was applied to indicate the significant difference in the each variable. The values of Levene's Test and Welch's Anova are used to indicate if there is equal or unequal variance between the variables. Next, REGWQ test is further carried out to reprove whether there is significant difference among the groups.

3.8 Conclusion

Chapter three discussed about how the data are being collected and how we analysed the data. The following chapter will further discuss on the results of data analysed with the guidance provided in this chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Chapter four presents the findings and analysis of the results. After filtering, 250 sets of questionnaires will be used for our study. SAS software was run to analyse and generate the data findings.

4.1 Descriptive Analysis

4.1.1 Respondent Demographic Profile

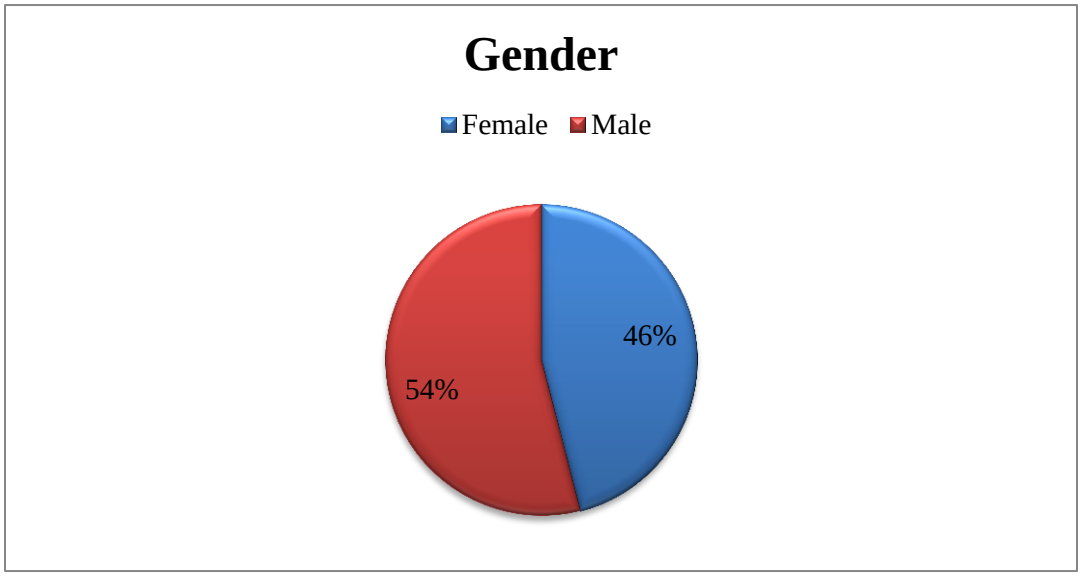
The Section A comprises of six questions: gender, age, highest academic qualifications, monthly income level as well as the duration and frequency of using SNS per week.

Table 4.1: Respondent's Gender

Gender	Frequency	Percentage
Male	135	54.00%
Female	115	46.00%

Source: Developed for research

Figure 4.1: Respondent's Gender



Source: Developed for research

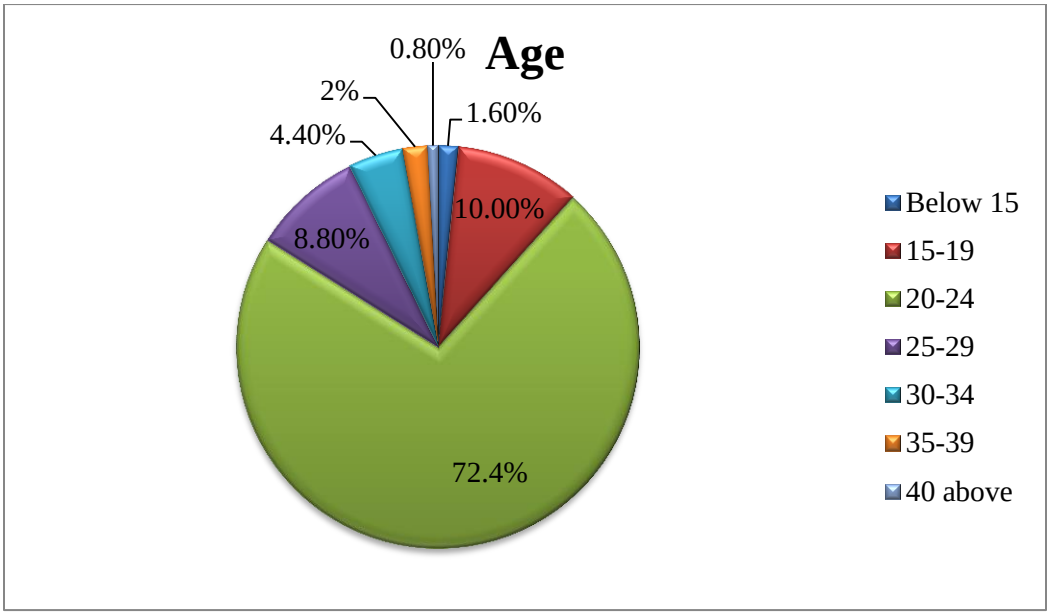
Table 4.1 illustrates that the amount of both genders of respondent is quite similar in this research. 115 (46%) respondents are female respondent; 135 (54%) respondents are male respondent.

Table 4.2: Respondent's Age

Age	Number of respondent	Number of respondent (%)
Below 15	4	1.60%
15-19	25	10.00%
20-24	181	72.40%
25-29	22	8.80%
30-34	11	4.40%
35-39	5	2.00%.
40 above	2	0.80%

Source: Developed for research

Figure 4.2: Respondent's Age



Source: Developed for research

Based on table above, most of the respondents are between 20 to 24 year-old. It consists of 187 respondents and represents 72% of the total respondents.

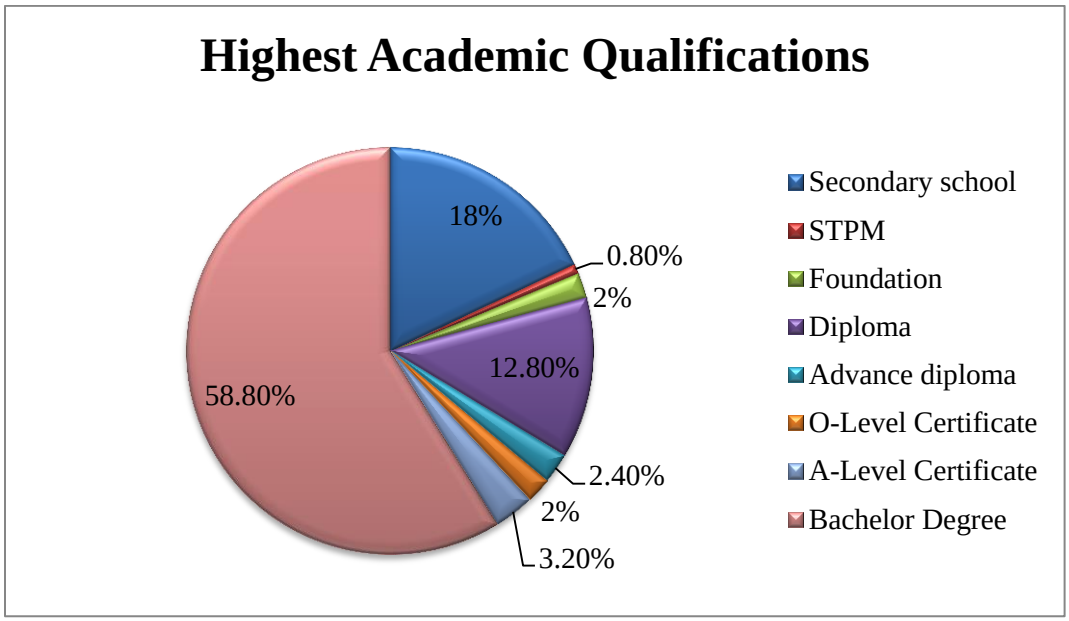
Next, 25 respondents or 10% of the total respondents fall into the age group of 15 to 19 year-old; 22 respondents or 8.8% of total respondents are aged between 25 to 29; 4 respondents are aged below 15 year-old and account for 1.6% of the total populations; 11 respondents or 4.4% of the total populations are aged between 30 to 34 year-old; Respondents who aged between 35 to 39 year-old consist of only 5 respondents (2% of total respondents). Lastly, 2 respondents or 0.8% of the total respondents are aged above 40 year-old.

Table 4.3: Respondent's Highest Academic Qualifications

Highest Academic Qualifications	**Number of respondent**	**Number of respondent (%)**
Secondary school	45	18.00%
STPM	2	0.80%
Foundation	5	2.00%
Diploma	32	12.80%
Advance diploma	6	2.40%
O Level Certificate	5	2.00%
A Level Certificate	8	3.20%
Bachelor Degree	147	58.80%

Source: Developed for research

Figure 4.3: Respondent's Highest Academic Qualifications



Source: Developed for research

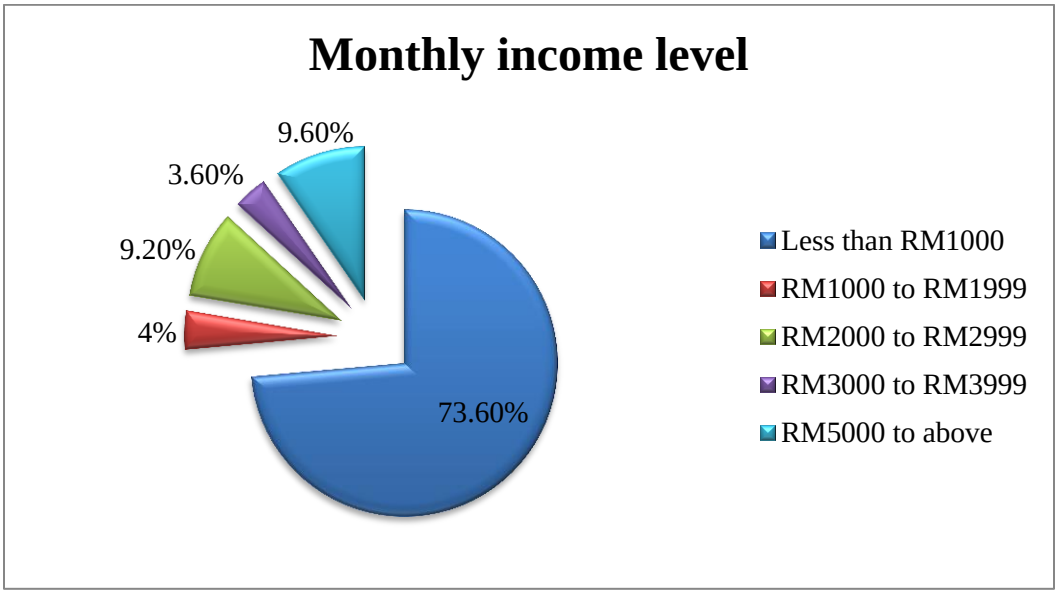
Based on the table above, most of the respondents are having bachelor degree. There are 147 bachelor degree holders and it accounts for 58.8% of the total respondents. It is followed by secondary school students which consist of 45 respondents or 18% of the total respondents. Next, 32 respondents are diploma holder and represent 12.8% of the total respondents. Meanwhile, 3.2% of the total respondents (8 respondents) are A level certificate holder and 6 respondents or 2.4% of the total respondents are advance diploma holder. Lastly, both the O level holder and foundation holder contribute to 2% of the total respondents respectively.

Table 4.4: Respondent's Monthly income level

Monthly income level	Number of respondent	Number of respondent (%)
Less than RM1000	184	73.60%
RM1000 to RM1999	10	4.00%
RM2000 to RM2999	23	9.20%
RM3000 to RM3999	9	3.60%
RM5000 and above	24	9.60%

Source: Developed for research

Figure 4.4: Respondent's Monthly income level



Source: Developed for research

Table 4.14 shows that 184 respondents or 73.6% of the total respondents are having income level of less than RM1000. Next, 9.6% of total respondents (24 respondents) are having income level of more than RM5000. On the other hand, 23 respondents or 9.2% of the total respondents are having a monthly

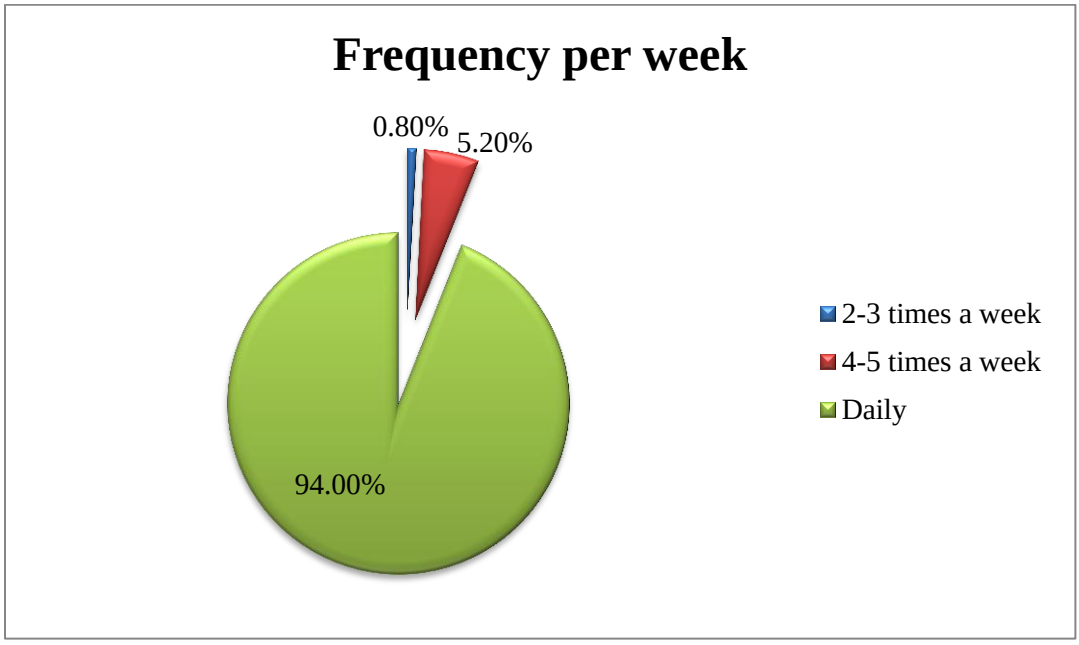
income of between RM2000 to RM2999. Besides, there are 10 respondents (4.00% of total respondents) who earning between RM1000 to RM1999 each month. Meanwhile, 9 respondents or 3.6% of the total respondents are having monthly income level of between RM3000 to RM3999.

Table 4.5: Respondent's Frequency of using SNS per week

Frequency per week	**Number of respondent**	**Number of respondent (%)**
2-3 times a week	2	0.80%
4-5 times a week	13	5.20%
Daily	235	94.00%

Source: Developed for research

Figure 4.5: Respondent's Frequency of using SNS per week



Source: Developed for research

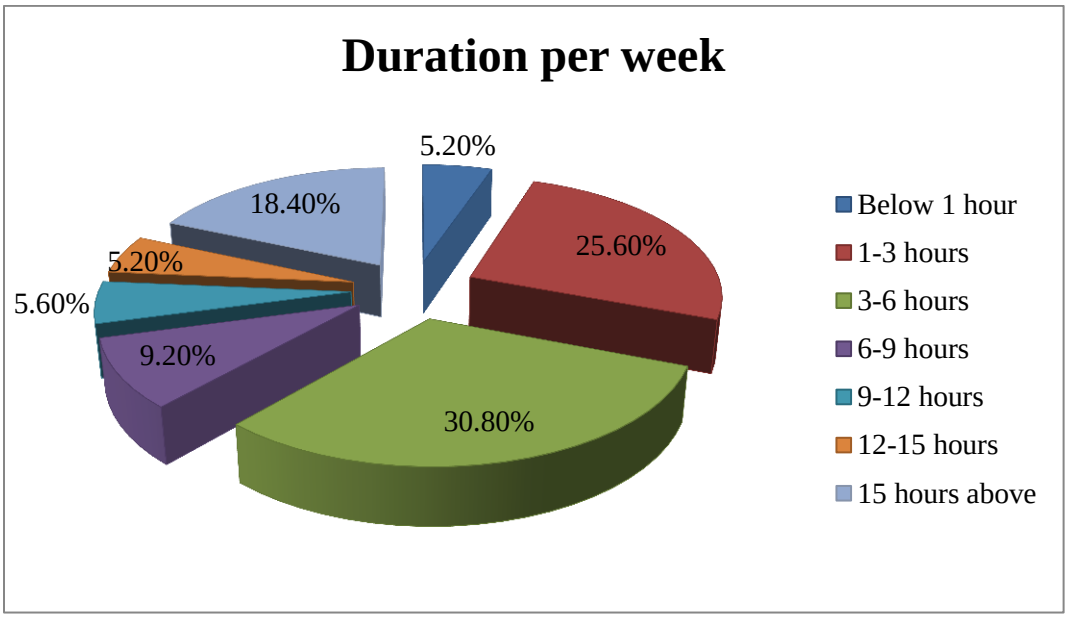
Table 4.5 shows that most of the respondents are using the SNS daily. They account for 235 respondents or 94% of the total respondents. It is followed by 13 respondents or 5.2% of the total respondents who using the SNS 4 to 5 times a week. There are 2 respondents (0.8% of total respondents) who using the SNS 2 to 3 times per week.

Table 4.6: Respondent's Duration of using SNS per week

Duration per week	**Number of respondent**	**Number of respondent (%)**
Below 1 hour	13	5.20%
1-3 hours	64	25.60%
3-6 hours	77	30.80%
6-9 hours	23	9.20%
9-12 hours	14	5.60%
12-15 hours	13	5.20%
15 hours above	46	18.40%
Missing	10	
Reject	7	
Incomplete	0	

Source: Developed for research

Figure 4.6: Respondent's Duration of using SNS per week



Source: Developed for research

The number of respondents who use SNS for 3 to 6 hours consists of 77 respondents or 30.8% of the total respondents. It is followed by 25.60% (64 respondents) of the total respondents who using it for 1 to 3 hours and 46 respondents or 18.40% of the total respondents who using it above 15 hours. Besides, there are 23 respondents or 9.20% of the total respondents who using the social network service for 6 to 9 hours. Meanwhile, the number of respondents who use SNS for 9 to 12 hours consists of 14 respondents or 5.60% of the total respondents. Lastly, the number of respondents for the usage of SNS for 12-15 hours and less than 1 hour is the same (13 respondents, 5.2% of the total respondents).

4.1.2 Central Tendencies Measurement of Constructs

Table 4.7: Summary of Central Tendencies

Variable	Mean	Std Dev	Minimum	Maximum	N
PU	4.1168000	0.5058272	2.0000000	5.0000000	250
SA	3.8544000	0.5379575	2.2000000	5.0000000	250
SI	3.7264000	0.5797304	2.0000000	5.0000000	250
HM	3.9168000	0.6212742	2.0000000	5.0000000	250
EE	3.9640000	0.6456403	2.0000000	5.0000000	250
CUI	4.0104000	0.6649364	2.0000000	5.0000000	250

Source : Developed for the research

A mean can be defined as an arithmetic average from a set of data which the sum of all the data divided by the number of respondents ("Describing Data," n.d.). When computing the mean, we standardize the simple sum of all these independent variables by spreading it evenly across 250 respondents which collected from the surveys. From the table, we know that the mean of perceived usefulness (4.1168) is the highest followed by effort expectancy (3.9640), hedonic motivation (3.9168), satisfaction (3.8544), and social influence (3.7264). This indicates that most of the people agreed with the statements in perceived usefulness. On the other side, least of the people agreed with the statements in the social influence.

Moreover, effort expectancy has the highest standard deviation (0.6456) when compared to other variables. This shows that effort expectancy is the least reliable factor in determining CUI of SNS users in Malaysia. In contrast,

perceived usefulness has the lowest standard deviation (0.5058), making it to become the most reliable factor in affecting CUI of SNS in Malaysia.

4.1.3 Cross tabulation

Respondent's profile includes of six questions which are gender, age, highest academic qualifications, monthly income level, frequency of using SNS per week, and duration of using SNS per week. From the summary of cross tabulations table, there is 3 out of 6 of them reflects the p-value < 0.05. It means that there is significant relationship between variables. It is further explained in the Table 4.8.

Table 4.8: Summary of Cross Tabulations

Demographic Variable	**Dependent Variable**	**Sig. F**	**Chi-Square**	**Phi Coefficient**	**Cramer's V**
a. Age	Continuance Usage intention	0.0996	10.6576	0.2065	0.2065
b. Gender	Continuance Usage intention	0.0449	4.0221	-0.1268	-0.1268
c. Highest Academic Qualification	Continuance Usage intention	0.0015	23.3367	0.3055	0.3055
c. Monthly Income Level	Continuance Usage intention	0.3488	4.4473	0.1334	0.1334

d. Frequency of Using SNS per week	Continuance Usage intention	0.0009	13.9733	0.2364	0.2364
e. Duration of Using SNS per week	Continuance Usage intention	0.0605	12.0651	0.2197	0.2197

Source : Developed for the research

Based on Table 4.8, it shows that there is a significant relationship between gender and continuance usage intention at value of 0.0449. However, Cramer's V shows the value of -0.1268 which proven a negative association between gender and CUI. From table 4.8.1, 123 of male respondents (49.20%) agreed with CUI in SNS whereas 12 male respondents (4.80%) maintained a neutral attitude towards CUI in SNS. Furthermore, the number of female respondents (20 respondents) whom are neutral with CUI of SNS is higher than that of male respondents.

Table 4.8.1: Continuance Usage Intention by Gender

		Gender		**Total**
		Male	**Female**	
CUI				
Neutral	**Frequency**	12	20	32
	Percent	4.80	8.00	12.80
Agree	**Frequency**	123	95	218
	Percent	49.20	38.00	87.20
Total	**Frequency**	135	115	250
	Percent	54.00	46.00	100.00

Source: Developed for the research

Based on Table 4.8, it shows that there is a significant relationship between highest academic qualifications and CUI at the value of 0.0015. Nevertheless, Cramer's V shows the value of 0.3055 which shows a small but definite relationship between the two variables. From table 4.8.2, 132 respondents (52.80%) in the Bachelor Degree academic level are agreed with the CUI of SNS whereas 15 respondents (6%) in Bachelor Degree academic level are neutral with CUI of SNS. Additionally, there are least respondents with O-level academic level that agreed with CUI in SNS.

Table 4.8.2: Continuance Usage Intention by Highest Academic Qualification

		Highest Qualification								
		Secondary School	STPM	Foundation	Diploma	Advanced Diploma	O-Level	A-Level	Bachelor Degree	Total
Cat_CUI										
Neutral	Frequency	8	2	0	3	2	2	0	15	32
	Percent	3.20	0.80	0.00	1.20	0.80	0.80	0.00	6.00	12.80
Agree	Frequency	37	0	5	29	4	3	8	132	218
	Percent	14.80	0.00	2.00	11.60	1.60	1.20	3.20	52.80	87.20
Total	Frequency	45	2	5	32	6	5	8	147	250
	Percent	18.00	0.80	2.00	12.80	2.40	2.00	3.20	58.80	100.00

Source: Developed for the research

Based on the table 4.8, it shows that there is a significant relationship between frequency of using SNS per week and CUI at value of 0.0009. Nevertheless, Cramer's V shows the value of 0.2364 which show a small but definite relationship between the two variables. From table 4.8.3, 206 respondents (82.40%) are daily users and agreed with CUI. Whereas, there are 29

respondents (11.60%) that are neutral with CUI although they are also daily user. Moreover, there is no respondent in the category of using 2-3 times SNS per week is having the CUI of SNS.

Table 4.8.3: Continuance Usage Intention by Frequency of Using SNS per week

		Frequency per week			Total
		2-3 times	4-5 times	Daily	
CUI					
Neutral	**Frequency**	2	1	29	32
	Percent	0.80	0.40	11.60	12.80
Agree	**Frequency**	0	12	206	218
	Percent	0.00	4.80	82.40	87.20
Total	**Frequency**	2	13	235	250
	Percent	0.80	5.20	94.00	100.00

Source: Developed for the research

4.2 Scale Measurement

4.2.1 Internal reliability test

Table 4.9: Reliability test

Variables	Cronbach Coefficient Alpha	Number of item
Perceived usefulness	0.844881	5
Satisfaction	0.813105	5
Social influence	0.822596	5
Hedonic motivation	0.825352	5
Effort expectancy	0.840343	5
Continuance usage intention	0.826440	5

Source: Developed for the research

Internal consistency is measured using Cronbach's coefficient alpha value which ranges from 0 to 1 whereby 0.7 or greater is considered as an acceptable reliability coefficient (Nunnally & Bernstein, 1994). According to the table illustrated above, the independent variable perceived usefulness has the highest reliability value of 0.844881. It is followed by the independent variable effort expectancy (0.840343), hedonic motivation (0.825352), social influence (0.822596) and the lowest reliability value 0.813105 from the independent variable satisfaction. The Cronbach alpha value for the dependent variable, CUI is 0.826440. In overall, all the variables are consistent and

reliable. The result indicates satisfactory internal consistency reliability as the values for all the variables are above 0.8.

4.3 Inferential Analyses

4.3.1 Pearson's Correlation Analysis

Table 4.10: Pearson's Correlation Analysis

Pearson's Correlation Coefficients					
	Perceived Usefulness	**Satisfaction**	**Social Influence**	**Hedonic Motivation**	**Effort Expectancy**
Correlation Coefficient	0.44103	0.54271	0.47457	0.52824	0.52137
P-value	<.0001	<.0001	<.0001	<.0001	<.0001

Source: Developed for the research

According to Rumsey (n.d.), p-value helps us to determine the significant of results of a study. In our study, we had made several hypotheses to test the validity of the claims on our target respondents - the social network users. The claim is also known as null hypothesis.

Based on the Pearson's correlation analysis, the p-value for all the IVs are < 0.0001. Therefore, we can say that the probabilities for null hypothesis of all the independent variables above to be true are close to zero. Hence, all the factors are proved to have relationships with the CUI of SNS.

The correlation coefficient (R-value) for all the variables above is ranged in between 0.4 to 0.6. This indicates that all these variables (perceived usefulness, satisfaction, social influence, hedonic motivation and effort expectancy) have moderately strong correlation with CUI. To be more specific, satisfaction has the highest correlation coefficient (0.54271) followed by hedonic motivation (0.52824), effort expectancy (0.52137), social influence (0.47457) and perceived usefulness (0.44103). Therefore, we can know that social influence and perceived usefulness which correlation coefficients fall below 0.5 have a weaker relationship with CUI when compared to satisfaction, hedonic motivation and effort expectancy.

4.3.2 Multiple Regression Analysis

4.3.2.1 Strength of Relationship

Table 4.11: Model Summary

R-Square	Coeff Var	Root MSE	Mean_CUI Mean	Adj. R-Square
0.4414	12.51798	0.50202	4.010400	0.4300

Source: Developed from the research

As shown in the table 4.11, the R-square ($R^{2)}$ value is 0.4414. It means that only 44.14% of variance in the CUI of SNS in Malaysia is able to be explained by the five IVs. According to Cohen's (1988) rules, it recommended that value of effect size in which coefficient of determination (R^2) less than 1% is considered to be small, R^2 ranges from 2.2 to 10.9% is considered as medium and R^2 greater than 13.8% is deemed to be large. Therefore, this study is deemed to be large for the effect size in Cohen's rules.

Table 4.12: ANOVA

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	5	48.59885	9.71977	38.57	<.0001
Error	244	61.49411	0.25203		
Corrected Total	249	110.09296			

Source: Developed from the research

As shown in table 4.12, F-value is 38.57 and its p-value is < 0.0001 which is < significant level, 0.05. It indicates that there is a significant relationship between the IVs and DV. Thus, the entire regression model is able to perform well with these five variables and explains the variation in CUI of SNS in Malaysia.

Table 4.13: Coefficient

Parameter Estimates						
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**P-Value|**	**Standardized Estimate**
Intercept	1	0.17017	0.29683	0.57	0.5670	0
Mean_PU	1	0.17140	0.07708	2.22	0.0271	0.13038
Mean_S	1	0.23224	0.08631	2.69	0.0076	0.18789
Mean_SI	1	0.03859	0.07640	0.51	0.6139	0.03365
Mean_HM	1	0.24654	0.06943	3.55	0.0005	0.23035
Mean_EE	1	0.28507	0.05918	4.82	<.0001	0.27680

Source: Developed from the research

P-value has indicated that four factors have significant relationship with the CUI of SNS in Malaysia. They are perceived usefulness, satisfaction, hedonic motivation and effort expectancy. However, the p-value of social influence shows that there is no significant relationship between social influence and CUI of SNS in Malaysia.

4.3.2.2 Hypotheses Testing

Table 4.14: Hypotheses Testing

Hypothesis	**P-value (<0.05)**	**Result**
H1: There is a significant relationship between perceived usefulness and continuance usage intention of SNS in Malaysia.	0.0271	Accepted
H2: There is a significant relationship between satisfaction and continuance usage intention of SNS in Malaysia.	0.0076	Accepted
H1: There is a significant relationship between social influence and continuance usage intention of SNS in Malaysia.	0.6139	Not accepted
H1: There is a significant relationship between hedonic motivation and continuance usage intention of SNS in Malaysia.	0.0005	Accepted
H1: There is a significant relationship between effort expectancy and continuance usage intention of SNS in Malaysia.	0.0001	Accepted

Source: Developed for the research

Therefore, the equation is formulated as below:

$$Y = 0.17017 + 0.17140(PU) + 0.23224(S) + 0.03859 (SI) + 0.24654 (HM) + 0.28507 (EE)$$

Y = Continuance Usage Intention

PU = Perceived Usefulness

S = Satisfaction

SI = Social influence

HM = Hedonic Motivation

EE = Effort Expectancy

Based on the equation above, if the independent variables are increased by 1 unit, the continuance usage intention (DV) will increase according to the parameter estimate value. Thus, the CUI will increase by 0.17140 unit when perceived usefulness increases by 1 unit; The CUI will increase by 0.23224 unit if satisfaction increases by 1 unit; The CUI will increase by 0.24654 unit when hedonic motivation increases by 1 unit; The CUI will increase by 0.28507 unit when effort expectancy increases by 1 unit. Finally, it is observed that the CUI will increase by 0.03859 when social influence increases by 1 unit. Nonetheless, the increase of 0.04 (which is relatively low compared to others) unit in CUI is not significant enough to support the hypothesis that social influence has a significant relationship with CUI of SNS.

4.4 Additional Insight on Respondent's Profile

4.4.1 T-test and ANOVA Procedure

From the cross tabulation test that we had run earlier, it shows that only gender, highest academic qualification and frequency of using SNS per week are having significant relationship with CUI of SNS in Malaysia. Therefore, in this part, we will only focus on whether there is significant difference in CUI of SNS based on these 3 variables. We had run both the t-test and ANOVA test to examine whether there are significant differences in these variables.

4.4.1.1 T-test

Based on t-test as shown in table 4.15.1, it shows that there is no significant difference in CUI of SNS based on gender.

Table 4.15: T Test - Gender with CUI

Gender	N	Mean	Std Dev	Std Err	Minimum	Maximum
1	135	4.2044	0.5345	0.0460	2.8000	5.0000
2	115	4.0765	0.5629	0.0525	3.0000	5.0000
Diff (1-2)		0.1279	0.5477	0.0695		

Table 4.15.1: Equality of variances

Equality of Variances				
Method	**Num DF**	**Den DF**	**F Value**	**Pr > F**
Folded F	114	134	1.11	0.5616

Method	**Variances**	**DF**	**t Value**	**Pr > |t|**
Pooled	Equal	248	1.84	0.0669
Satterthwaite	Unequal	237.27	1.83	0.0681

Source: Developed for the research

$H_{0:}$ There is no significant difference in continuance usage intention based on the Gender.

H_1: There is significant difference in continuance usage intention based on the Gender.

The mean of CUI for male is higher than that of female (4.2: 4.0). According to the p-value in Folded F (0.5616), it indicates that the variance is equal between male and female. When there is an equal variance, pooled method value will be referred to. The gender has a probability value of 0.0669 which is higher than the significant level (0.05). It shows that there is no significant difference in CUI based on the gender. Therefore, the hypothesis null (H_0) is accepted.

4.4.1.2 ANOVA

Based on ANOVA test, it had illustrates that there is significant difference in CUI of SNS based on highest academic qualification and frequency of using SNS per week. Thus, REGWQ test will be conducted to further identify the difference that existed among these 2 variables.

Anova test – CUI by Frequency of using SNS per week

Table 4.16: The ANOVA procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2.67394723	1.33697362	4.54	0.0116
Error	247	72.74621277	0.29451908		
Corrected Total	249	75.42016000			

Source: Developed for the research

Table 4.16.1: Means and Descriptive Statistics

Frequency of using SNS per week	Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
3	3.00000	0.00000	0.00000	2	0
4	4.20000	0.41633	0.11547	13	0
5	4.15234	0.54954	0.03585	235	0

Source: Developed for the research

Table 4.16.2: Levene's Test

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Frequency of using SNS per week	1	0.2439	0.2439	2.02	0.1563
Error	246	29.6785	0.1206		

Source: Developed for the research

H_0: There is no significant difference in continuance usage intention based on the frequency of using SNS per week.

H_1: There is significant difference in continuance usage intention based on the frequency of using SNS per week.

The table 4.16.1 above shows that the means of CUI based on frequency of using SNS per week for group 3, 4 and 5 are 3.00, 4.20 and 4.15 respectively. While the p-value of the Levene's Test for the Frequency of using SNS per week is 0.1563, it indicates that there is an equal variance. Table 4.16 showed that the p-value of frequency of using SNS per week is 0.0116 which is < 0.05. Thus, we can claim that there is significant difference in CUI of SNS based on frequency of using SNS per week. Therefore the hypothesis null (H_0) is rejected.

Table 4.16.3: REGWQ Test

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI			
REGWQ Grouping	**Mean**	**N**	**Frequency of week**
A	4.2000	13	4
A			
A	4.1523	235	5
B	3.0000	2	3

Source: Developed for the research

There are different categories of frequency of using SNS per week based on CUI of SNS: 1 (less than once a week), 2 (once a week), 3 (2-3 times a week), 4 (4-5 times per week), and 5 (Daily). In the REGWQ test, same letter means that the groups are homogeneous while groups of different letter are heterogeneous. REGWQ test is carried out to further identify which category of respondent is having significant difference in frequency of using SNS per week. Based on the table above, we can know that group 4 and 5 are homogeneous as they belonged to letter A. Therefore, they are having no significant difference. On the other hand, group 3 is having significant difference as it is belonged to letter B.

Anova test – Highest Academic Qualification vs CUI

Table 4.17: The ANOVA Procedure

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	7.08828018	1.01261145	3.59	0.0011
Error	242	68.33187982	0.28236314		
Corrected Total	249	75.42016000			

Table 4.17.1: Means and Descriptive Statistics

Highest Academic Qualification	Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
1	4.11111	0.56978	0.08494	45	0
2	3.30000	0.14142	0.10000	2	0
3	4.36000	0.32863	0.14697	5	0
4	3.92500	0.30796	0.05444	32	0
5	3.56667	0.46332	0.18915	6	0
6	3.84000	0.76681	0.34293	5	0
7	4.17500	0.36154	0.12783	8	0
8	4.24082	0.56323	0.04645	147	0

Table 4.17.2: Levene's Test

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Highest Academic Qualification	6	2.0207	0.3368	3.51	0.0024
Error	241	23.1467	0.0960		

Table 4.17.4: Welch's Anova Test

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Highest Academic Qualification	7.0000	9.87	0.0003
Error	12.5656		

H_0: There is no significant difference in continuance usage intention based on the highest academic qualification.

H_1: There is significant difference in continuance usage intention based on the highest academic qualification.

Table 4.17.1 shows that the means of CUI based on highest academic level from group 1 to 8 are 4.11, 3.30, 4.36, 3.93, 3.57, 3.84, 4.18 and 4.24 respectively. According to the p-value of Levene's test (0.0024), it indicates that there is an unequal variance. Besides, table 4.18 also shows that the p-value of 0.0011 which is lower than the significant level (0.05). It indicates

that there is significant difference in CUI of SNS based on highest academic qualification. Therefore the hypothesis null (H_0) is rejected.

Table 4.17.5: REGWQ Test

REGWQ Grouping		Mean	N	Highest Academic Qualification
	A	4.3600	5	3
	A			
	A	4.2408	147	8
	A			
B	A	4.1750	8	7
B	A			
B	A	4.1111	45	1
B	A			
B	A	3.9250	32	4
B	A			
B	A	3.8400	5	6
B	A			
B	A	3.5667	6	5
B				
B		3.3000	2	2

Source: Developed for the research

From the table 4.17.5 REGWQ test, it shows that the difference in the highest academic qualification of respondents tend to result in vary responses towards CUI of SNS. There are 8 categories of respondents: 1 (secondary school), 2 (O-level certificate), 3(A- level certificate), 4 (Diploma / Advance Diploma), 5 (Bachelor Degree), 6 (Master Degree), 7 (PhD degree), 8 (others). From the table 4.17.5 above, it shows that the highest academic qualification categories of 1, 3, 4, 5, 6, 7 and 8 are having same letter A. It indicates that there is no

significant difference from one another which fall under category group A. For the highest academic qualification categories of 1, 2, 4, 5, 6 and 7 are having same letter B. It indicates that there is no significant difference from one another which fall under category group B. However, there is significant difference between group A and group B.

4.5 Conclusion

In conclusion, the analysis of the relationships between IVs and DV has been completed in this chapter. The results suggested that there is significant relationship between perceived usefulness, satisfaction, hedonic motivation, effort expectancy with CUI of SNS in Malaysia. However, social influence does not have significant relationship with CUI of SNS in Malaysia. Besides, it is shown that gender, highest academic qualification and frequency of using SNS per week are having significant relationship with CUI while vice versa for age, monthly income level and duration of using SNS per week.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

Chapter five includes summary of statistical analysis, major findings, theoretical and managerial implications, limitations of study and also recommendations for future research.

5.1 Summary of statistical analyses

5.1.1 Descriptive Analysis

5.1.1.1 Respondent Demographic Profile

After discarding unusable questionnaire, there are total of 250 respondents which 135 are male and 115 are female respectively. Majority of the respondents fall into the age group of 20 years old to 24 years old (72.00%). Besides that, 58.80% of total respondents (147 respondents) are bachelor

degree holders and 184 respondents (73.60%) are having a monthly income level of below RM1000. According to the analysis, 94% of the respondents are using the SNS daily. Lastly, there are greatest number of respondents (77 respondents) who using the SNS for 3 to 6 hours.

5.1.1.2 Summary of Central Tendencies Measurement

According to data collected, perceived usefulness has the highest mean value with the lowest standard deviation. This can be seen from the closely clustered data of perceived usefulness. This makes it to become the most reliable variable in affecting the CUI of SNS. In opposite, effort expectancy (EE) has the highest standard deviation. The data of EE is widely spread. Hence, it shows that it is the least reliable variable among all the independent variables.

5.1.1.3 Summary of Cross Tabulation

To conclude, gender, highest academic qualification, and frequency of using SNS per week do significantly influence CUI of SNS in Malaysia. In contrast, age, monthly income level, and duration of using SNS per week do not have significant relationship with CUI of SNS in Malaysia.

5.1.2 Scale Measurement of Research

5.1.2.1 Internal reliability test

Cronbach's Alpha value was applied to test the reliability of the 30 items in the construct measurement. All the IVs and DV are considered reliable since all the values are above 0.8. The variable that obtains the highest value in the reliability test is perceived usefulness (0.844881), followed by effort expectancy (0.840343), continuance usage intention (0.826440), hedonic motivation (0.825352), social influence (0.822596) and the satisfaction (0.81310).

5.1.3 Inferential analysis

5.1.3.1 Summary of Pearson's Correlation Coefficient

Pearson's Correlation Coefficient was applied to determine the strength of a linear association between IVs and DV. The IVs are perceived usefulness, satisfaction, hedonic motivation, social influence and effort expectancy while the dependent variable is the CUI of SNS. For our study, all the R-values fall in between the range of 0.4 to 0.6. This indicates that all the IVs present a moderately strong positive correlation with the DV. Besides, they all have a p-value of less than 0.001 which means that all the IVs have substantial relationship with CUI.

5.1.3.2 Multiple Regression Analysis

As shown in the result, the multiple regression model has F-value of 38.57 and significant level of < 0.0001. There are four variables (perceived usefulness, satisfaction, hedonic motivation and effort expectancy) which having significant relationship with CUI of SNS. However, it is shown that SI does not have a significant relationship with the DV. Furthermore, the R^2 value of 0.4414 shows that 44.14% of the variation in the CUI of SNS is able to be explained by the all the IVs. The equation is formed based on the multiple regression model: Y= 0.17017 + 0.17140(PU) + 0.23224(S) +0.03859(SI) + 0.24654 (HM) + 0.28507 (EE). According to the equation above, EE was proved to have strongest influence on CUI (Y) while perceived usefulness has weakest influence on Y.

5.1.4 Additional Insight on Respondent's Profile

5.1.4.1 Summary of T-test

For our research, only gender is tested by using independent samples t-test. It shows the p-value of 0.5616 which is more than the significant level, 0.05. Hence, there is no significant difference in CUI of SNS based on the gender.

5.1.4.1 Summary of Anova

In overall, there is significant difference in CUI of SNS based on frequency of using SNS per week and highest academic qualification. This can be seen from the p-values of 0.116 and 0.0011 which are lesser than the significant level respectively.

5.2 Discussion of Major Findings

H1: There is a significant relationship between perceived usefulness and continuance usage intention of SNS in Malaysia.

Based on the analysis, it shows that the p-value of perceived usefulness is 0.0271 (< 0.05). It indicates that there is a significant relationship between perceived usefulness towards CUI of SNS in Malaysia. According to Yin, Liu and Lin (2015), there will be positive affect on continuous adoption of SNS when the users feel its usefulness. Furthermore, based on the research of Bataineh, Al-Abdallah and Alkharabsheh (2015), perceived usefulness is associated with features to contact and connect with other people and to retain relationships. Perceived usefulness seems to be a main influence of customer satisfaction and CUI of online services (Barnes & Bohringer, 2011; Kang & Lee, 2010; Lee & Kwon, 2011). According to Mouakket (2015), perceived usefulness will influence satisfaction, and consequently perceived usefulness and satisfaction will have influence on the CUI of SNS such as Facebook.

H2: There is a significant relationship between satisfaction and continuance usage intention of SNS in Malaysia.

Results showed that the p-value of satisfaction is 0.0076 (< 0.05). Therefore, there is a significant relationship between satisfactions towards CUI of SNS in Malaysia. Based on the Thong et al. (2006), the major reason for the consumer to continue using a product or services is based on the consumer's level of satisfaction after using that product or services. Based on Oghuma et al. (2015), the more satisfied the users are, the higher the likelihood that they will continue to use on the product or services. Besides that, satisfaction will enhance the sense of belonging of users to the SNS and encourage them for prolonged usage (Lin, et al., 2014).

H3: There is a significant relationship between social influence and continuance usage intention of SNS in Malaysia.

The table of hierarchical regression analysis shows that the p-value of social influences is 0.6139 (> 0.05). This indicates that there is no significant relationship between social influences and CUI of SNS in Malaysia. According to Zhou and Li, (2014), few studies conducted by Ku, Chen, and Zhang (2013); Baker and White (2010) have shown the positive result of social influence towards the adoption of SNS. However, they are all employing on other theories such as uses and gratification theory and theory of planned behavior (TPB). Kwon and Wen (2010) have stated that despite these studies had showed a positive relationship on social influence and adoption of SNS, they are not really based on the theory of social influence and do not provide a thorough understanding of the effect of social influence. Moreover, according to Lu, Yao and Yu (2005), social influence will have no effect on a person's intention to use a system when the system perceived to be voluntary.

H4: There is a significant relationship between hedonic motivation and continuance usage intention of SNS in Malaysia.

According to the research shown, there is significant relationship between hedonic motivations and CUI of SNS in Malaysia. This is owing to the p-value of hedonic motivations, 0.0005 which is < 0.05, the level of significant. Ventakesh et al. (2012) stated that hedonic motivation is a major element of technology acceptance and continuance intention in the use of SNS in the consumer context. Next, hedonic motivation is also influencing the technology acceptance and use according to van der Heijden (2004) and Thong et al. (2006). Therefore, hedonic motivation has been included as a predictor of consumer behavioural intention to use an IT (Venkatesh et al., 2012).

H5: There is significant relationship between effort expectancy and continuance usage intention of SNS.

Based on the results shown, the p-value of effort expectancy, 0.0001 is < 0.05. The results suggested that there is a significant relationship between effort expectancy and CUI of SNS in Malaysia. Based on Chang, Hong, Cheng and Wu (2014), the primary factors that determine the CUI of a technology or system is effort expectancy. Effort expectancy is equivalent to the perceived ease of use as stated in the TAM (Venkatesh et al., 2003). By referring to Bhattecherjee (2011), perceived ease of use is found to have effect towards satisfaction and CUI of IS. Furthermore, a lot of studies had demonstrated that effort expectancy will have positive influence towards CUI of technology and system such as the website of e-government (Wangpipatwong,

Chutimaskul & Papasratorn, 2008), Facebook (Sibona & Choi, 2012) and E-learning system (Bellaaje et al., 2015).

5.3 Implication of the study

5.3.1 Managerial implication

It is important for managers of SNS to know the factors which influence the user's CUI. To sustain users, the managers must ensure the customers able to be benefited from using SNS. Besides, through this study, policy maker able to gain basic understanding on the penetration rate of people who using SNS for daily activities.

Effort expectancy is proved to have most significant relationship with CUI of SNS. Customers will continue to use the services if it is easy to use without much effort needed. People will reduce the usage amount and stop using it when it becomes too complicated. A more usability and friendly design of interface such as character fonts, background colour and clear navigation may enhance the ease of use of a SNS.

Moreover, hedonic motivation also has a significant relationship with CUI of SNS. Practitioners must avoid offering services which will makes users feel not interesting and bored. To increase the fun and enjoyment of users, managers must provide interesting application or games to let the users get

themselves involved in the fun of using SNS. For examples, photo sharing, message sharing, and video sharing. Enhancing user's experience on sharing photos, films, web blogs, and links on their profiles will be able to make the users and their friends feel interested and fun (Powell, 2009; Lin & Lu, 2011).

In additional to that, satisfaction also proved to have significant relationship with CUI of SNS. Practitioners need to constantly evaluate the services they provide to users so they could measure the satisfactory level of customers towards the services offered. The main goal of the SNS providers is to devise strategies which will meet the user's expectation and increase user's satisfaction through creative innovation ideas. Satisfied customers will then bring in new users via word of mouth (WOM). Therefore, a manager could prepare a survey form to get customer's feedback in order to measure their satisfaction.

Furthermore, perceived usefulness also has a significant relationship with CUI of SNS. SNS practitioners should provide SNS which will be useful for users to connect and contact with people. When it is able to reduce the difficulties of people connecting with each another, the users will continue using it to improve their social life. In order to let the customers share and interact with each other more efficiently, managers can enhance the function of SNS by providing a faster upload speed and bigger storage capacity for customers (Yin et al., 2015). In general, the main concern of customers is whether the SNS is able to facilitate them in contacting with each other and improve their performance toward social goals (Davis, 1989; Kim, 2011; Lin & Lu, 2011).

Nevertheless, social influence does not have a significant relationship with CUI of SNS. Practitioners may need to focus more on the services

performance rather than user's friends and families. SNS providers need to develop applications which enable the users to interact with each other to increase the social connection and create more social services' value. Besides, they may also provide support services such as service helpline to solve customer's issues more efficiently and effectively.

5.3.2 Theoretical implication

This study has adapted the theoretical framework of Expectation Confirmation Model (ECM) and Extension of Unified Theory of Acceptance and Use of Technology (UTAUT2). Thus, we came out with a new integrated framework with the variables of perceived usefulness, satisfaction from the ECM model and social influence, hedonic motivation and effort expectancy from UTAUT2.

The new constructed framework will be served as a reference for future researchers who are interested in studying SNS and the CUI of users towards SNS. The continuance usage of SNS will be a hot issue to be discussed as people nowadays rely heavily on SNS for their daily activities. This research framework also acts as a foundation for future researchers who are interested in getting information for other related technological usage's intention.

5.4 Limitation of study

This study represents a systematic effort to incorporate elements from different distinct theories to integrate model within the context of the CUI on SNS. However, there are also some limitations throughout this research.

Firstly, this research was conducted in Malaysia. The results may unable to be generalized and may be inapplicable in other countries. Since the CUI of SNS across countries is characterized with different perceptions, the results obtained in other countries may greatly vary with what we obtained in Malaysia.

Secondly, a cross-sectional study was used to measure respondent's perceptions and intentions at a point of time. Given that perceptions and intentions change overtime, information obtained may only applicable to the present situation in Malaysia. Thus, the findings may be not suitable in the future as the data will be outdated.

Thirdly, our study looks only at the relationships between five IVs (perceived usefulness, satisfaction, social influence, hedonic motivation and effort expectancy) and CUI of SNS. These five factors do not fully contribute to all the factors that affecting the CUI of SNS.

5.5 Recommendation

In brief, future research could be expanded through conducting similar study in different countries such as European countries. This enables the researchers to

compare more precisely between the factors that really impacting their CUI of SNS and gain better generalization in future research.

Although cross-sectional studies can be done more quickly than longitudinal studies, it cannot truly measure the results in a long-term effect. Therefore, it is suggested that future researchers conduct a cross-sectional study to examine first whether there is any relationship between these variables (Summer, 2015). After that, a longitudinal study should be set up to learn about their cause and effect. For instance, repeated cross-sectional studies could be carried out to enable future researchers to compare the behaviours of social network user over a period of time (Levin, 2006).

Based on the results of our analysis, we found out that there would be other factors that affecting consumer's continuance intention of using SNS. Hence, variables such as perceived risk, trust, commitment and loyalty should be included in future studies.

5.6 Conclusion

In this chapter, the theoretical and managerial implications have been discussed after the summary of the analyses and discussion on the major findings. With a clearer picture on the factors affecting the CUI of SNS in Malaysia, practitioners are able to develop more appropriate strategies in retaining the existing users of SNS. Besides, limitations of this study were also pointed out in this chapter and a few recommendations were suggested to future researchers.

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Appendix 1.0: Online Questionnaire

Determinants of continuance usage intention of social network services in Malaysia

Dear respondents,

We are undergraduate students in Marketing programme from Universiti Tunku Abdul Rahman (UTAR).

The purpose of this study is to identify the determinants of continuance usage intention of social network services (SNS).
There is neither right nor wrong answers to any of the statement.

Please complete this survey by answering all the questions honestly with your best knowledge. All the information collected is confidential and will only be used for research purpose.

There are 2 sections in this survey. Please answer ALL questions for both sections. This survey would take you approximately 10-20 minutes.

Thank you for you participation.

Regards,

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* Required

Personal Data Act

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:
1. The purposes for which your personal data may be used are inclusive but not limited to:-
- For assessment of any application to UTAR
- For processing any benefits and services

- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:
1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at leewo@utar.edu.my.

Acknowledgment of Notice

1. *

Mark only one oval.

◯ I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

Section A: Demographic Profile

This section is just a brief identification of your background. Please chosen answer and all information will be kept strictly as confidential.

2. **Q1. Gender** *

Mark only one oval.

◯ Male
◯ Female

3. **Q2. Age** *
Mark only one oval.

- ◯ Below 15 year old
- ◯ 15 - 19 year old
- ◯ 20 - 24 year old
- ◯ 25 - 29 year old
- ◯ 30 - 34 year old
- ◯ 35 - 39 year old
- ◯ 40 year old and above

4. **Q3. Highest Academic Qualifications** *
Mark only one oval.

- ◯ Secondary school
- ◯ STPM
- ◯ Foundation
- ◯ Diploma
- ◯ Advance diploma
- ◯ O - Level Certificate
- ◯ A - Level Certificate
- ◯ Bachelor Degree
- ◯ Master Degree
- ◯ PhD Degree
- ◯ Other: _____

5. **Q4. Monthly Income Level** *
Mark only one oval.

- ◯ Less than RM1000
- ◯ RM1000 - RM1999
- ◯ RM2000 - RM2999
- ◯ RM3000 - RM3999
- ◯ RM4000 - RM4999
- ◯ RM5000 and above
- ◯ RM10000 and above

6. **Q5. How frequent you use social network services a week?** *

For your information, social networking services (also known as social networking sites or SNS) is a platform to build social networks or social relations among people who share similar interests, activities, backgrounds or real-life connections. Examples of SNS are Facebook, Google+, LinkedIn, Instagram, Reddit, Pinterest, Vine, Tumblr, and Twitter.
Mark only one oval.

- ◯ Less than once a week
- ◯ Once a week
- ◯ 2 - 3 times a week
- ◯ 4 - 5 times a week
- ◯ Daily

7. **Q6. How long do you spend on social network services a week?** *

Mark only one oval.

- ◯ Less than 1 hour
- ◯ 1 - 3 hours
- ◯ 3 - 6 hours
- ◯ 6 - 9 hours
- ◯ 9 - 12 hours
- ◯ 12 - 15 hours
- ◯ More than 15 hours

Section B: Determinants of continuance usage intention on social network services.

This section is seeking of your opinion what make you have the continuance usage intention on social network services. Respondents are asked to choose their best response which agree or disagree towards the statement based on the scales [(1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree.]

8. **Perceived usefulness** *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Using social network services enables me to acquire more information or know more people.					
Using social network services improves my efficiency in sharing information and connecting with others.					
The social network services are useful for interaction between one another.					
The advantages of these social networking sites outweigh the disadvantages.					
Overall, the social network services are useful.					

9. **Satisfaction** *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My overall experience of using social network services are satisfying.					
Using social network services makes me sense of enjoyment.					
I am pleased with the performance of social network services.					
My decision to use social network services is a wise one.					
I feel good regarding my decision to use social network services.					

10. **Social influence** *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neautral	Agree	Strongly Agree
My family members think that I should continue to use social network services.					
My friends think that I should continue to use social network services.					
People I know think that using social network services is a good idea.					
People who influence my behavior think that I should continue to use social network services.					
People whose opinions that I value prefer that I continue to use social network services.					

11. **Hedonic motivation** *

Mark only one oval per row.

	Strong Disagree	Disagree	Neutral	Agree	Strong Agree
I feel fun using social network services.					
I feel enjoyable using social network services.					
I feel entertain using social network services.					
I have good feeling while using social network services.					
I felt the excitement of using social network services.					

12. **Effort expectancy** *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Learning how to use social network services is easy for me.					
Social network services are easy to understand.					
I find social network services easy to use.					
It is easy for me to become skilful by using social network services.					
Social network services user interface is user friendly.					

13. **Continuance usage intention** *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I intend to continue using social network services in the future.	◯	◯	◯	◯	◯
I intend to increase my usage of social network services in the future.	◯	◯	◯	◯	◯
I will keep using social network services as regularly as I do now.	◯	◯	◯	◯	◯
I will frequently use social network services in the future.	◯	◯	◯	◯	◯
I will strongly recommend others to use social network services.	◯	◯	◯	◯	◯

Powered by Google Forms

Google Form Link:

https://docs.google.com/a/1utar.my/forms/d/18AefjDQf_c2LVV1bnBa6KXfx3sSGPqPpqvmA3G0CD3E/viewform?edit_requested=true

Appendix 2.0: Survey Questionnaire

Universiti Tunku Abdul Rahman

Faculty of Business and Finance

(Academic Year 2015/2016)

Determinants of continuance usage intention of social network services (SNS) in Malaysia

Dear respondent,

We are Undergraduate Marketing course students from Universiti Tunku Abdul Rahman (UTAR). The purpose of this study is to identify the determinants of continuance usage intention of social network services (SNS). There is neither right nor wrong answers to any of the statement.

Please complete this survey by answering all the questions honestly with your best knowledge. All the information collected is confidential and will be used only for the purpose of research.

There are 2 sections in this survey. Please answer **ALL** the questions for both the sections. This survey would cost you approximately 10-20 minutes.

Thank you for your participation.

Regards,

Seok Yee – syn5e2@1utar.my

Suk Yi – veron.sy@1utar.my

Chia Yuong – 1202894@1utar.my

Yee Ting – yeetingchung@1utar.my

Section A: Demographic Profile

This section is just a briefly identification of your background. The answer that you have chosen and all the information will be kept strictly as confidential.

Q1. Gender

☐ Male ☐ Female

Q2. Age

☐ Below 15 year old ☐ 15-19 year old ☐ 20-24 year old

☐ 25-29 year old ☐ 30-34 year old ☐ 35-39 year old

☐ 40 year old and above

Q3. Highest Academic Qualifications

☐ Secondary school ☐ STPM ☐ Foundation

☐ Diploma ☐ Advance diploma ☐ O-Level Certificate

☐ A-Level Certificate ☐ Bachelor Degree ☐ Master Degree

☐ PhD Degree ☐ Other: _____

Q4.Monthy Income Level

☐ Less than RM1000 ☐ RM1000 - RM1999 ☐ RM2000 - RM2999

☐ RM3000 - RM3999 ☐ RM4000 - RM4999 ☐ RM5000 and above

Q5. How often do you use social network services a week?

** For your information, social networking services (also known as social networking site or SNS) is a platform to build social networks or social relations among people who share similar interests, activities, backgrounds or real-life connections. Examples of SNS are Facebook, Google+, LinkedIn, Instagram, Reddit, Pinterest, Vine, Tumblr, and Twitter. **

☐ Less than once a week ☐ Once a week ☐ 2 - 3 times a week

☐ 4 - 5 times per week ☐ Daily

Q6. How long do you spent on social network services a week?

☐ Less than 1 hour ☐ 1 - 3 hours ☐ 3 - 6 hours

☐ 6 – 9 hours ☐ 9 - 12 hours ☐ 12 - 15 hours

☐ More than 15 hours

Section B: Determinants of continuance usage intention on social network services.

This section requires respondents to choose the answers which agree or disagree using the scales [(1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree; Please circle the answer number per question to justify your opinions in the following statements.

No.	Questions	Strong	Disagr	Neutra	Agree	Strong
Perceived Usefulness						
PU1	Using social network services enables me to acquire more information or know more people.	1	2	3	4	5
PU2	Using social network services improves my efficiency in sharing information and connecting with others.	1	2	3	4	5
PU3	The social network services are useful services for interaction between one another.	1	2	3	4	5
PU4	The advantages of these social networking sites outweigh the disadvantages.	1	2	3	4	5
PU5	Overall, the social network services are useful.	1	2	3	4	5
Satisfaction						
S1	My overall experience of social network services are satisfying.	1	2	3	4	5
S2	Using social network services make me sense of enjoyment.	1	2	3	4	5
S3	I am pleased with the performance of social network services.	1	2	3	4	5
S4	My decision to use social network services is a					

	wise one.	1	2	3	4	5
S5	I feel good regarding my decision to use social network services.	1	2	3	4	5
Social Influence						
SI1	My family members think that I should continue use social network services.	1	2	3	4	5
SI2	My friends think that I should continue use social network services.	1	2	3	4	5
SI3	People who I know think that using social network services is a good idea.	1	2	3	4	5
SI4	People who influence my behavior think that I should continue use social network services.	1	2	3	4	5
SI5	People whose opinions that I value prefer that I continue use social network services.	1	2	3	4	5
Hedonic motivation						
HM1	I feet fun of using social network services.	1	2	3	4	5
HM2	I feet enjoyable using social network services.	1	2	3	4	5
HM3	I feet entertain using social network services.	1	2	3	4	5
HM4	I have good feeling while using social network services.	1	2	3	4	5
HM5	I felt the excitement of using social network services.	1	2	3	4	5
Effort expectancy						
EE1	Learning how to use social network services is easy for me.	1	2	3	4	5
EE2	Social network services are easy to understand.	1	2	3	4	5

EE3	I find social network services easy to use.	1	2	3	4	5
EE4	It is easy for me to become skillful at using social network services.	1	2	3	4	5
EE5	Social network services user interface is very user friendly.	1	2	3	4	5
Continuance usage intention						
CI1	I intend to continue use of social network services in the future.	1	2	3	4	5
CI2	My intention is to increase my use of social network services in the future.	1	2	3	4	5
CI3	I will keep using social network services as regularly as I do now.	1	2	3	4	5
CI4	I will frequently use of social network services in the future.	1	2	3	4	5
CI5	I will strongly recommend others to use social network services.	1	2	3	4	5

Appendix 3.0: Summary Statistics

Summary Statistics

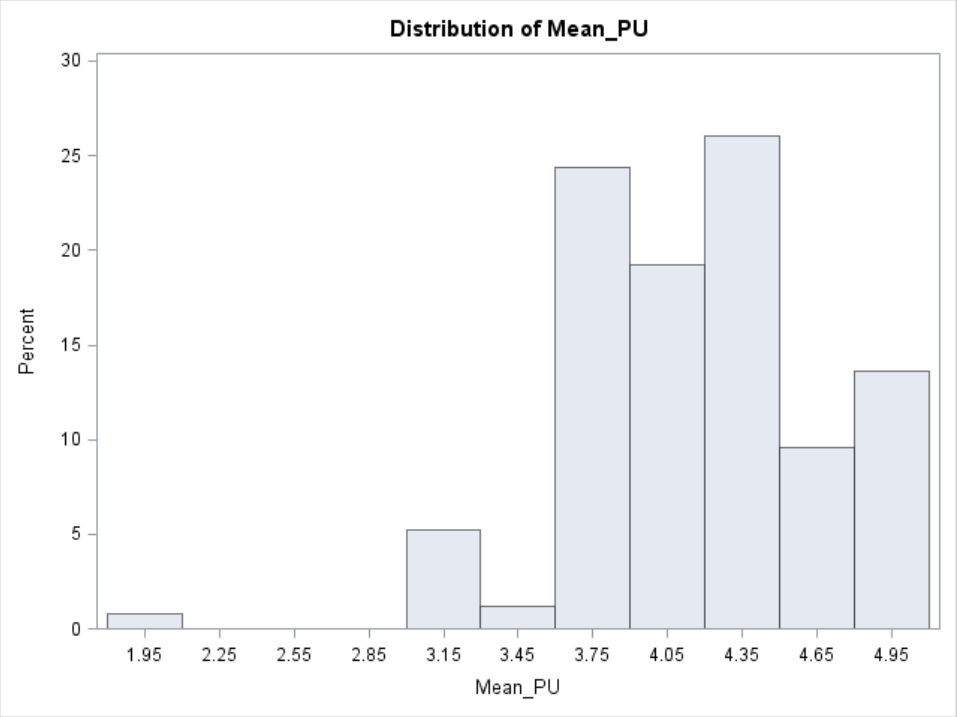
The MEANS Procedure

Variable	Mean	Std Dev	Minimum	Maximum	N
Mean_PU	4.1168000	0.5058272	2.0000000	5.0000000	250
Mean_SA	3.8544000	0.5379575	2.2000000	5.0000000	250
Mean_SI	3.7264000	0.5797304	2.0000000	5.0000000	250
Mean_HM	3.9168000	0.6212742	2.0000000	5.0000000	250
Mean_EE	3.9640000	0.6456403	2.0000000	5.0000000	250
Mean_CUI	4.0104000	0.6649364	2.0000000	5.0000000	250

Summary Statistics

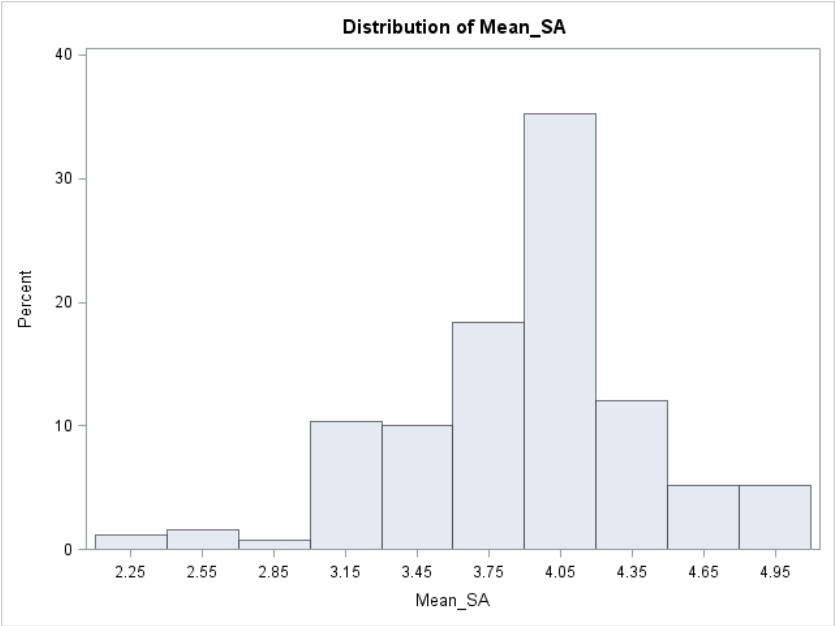
Histograms

The UNIVARIATE Procedure



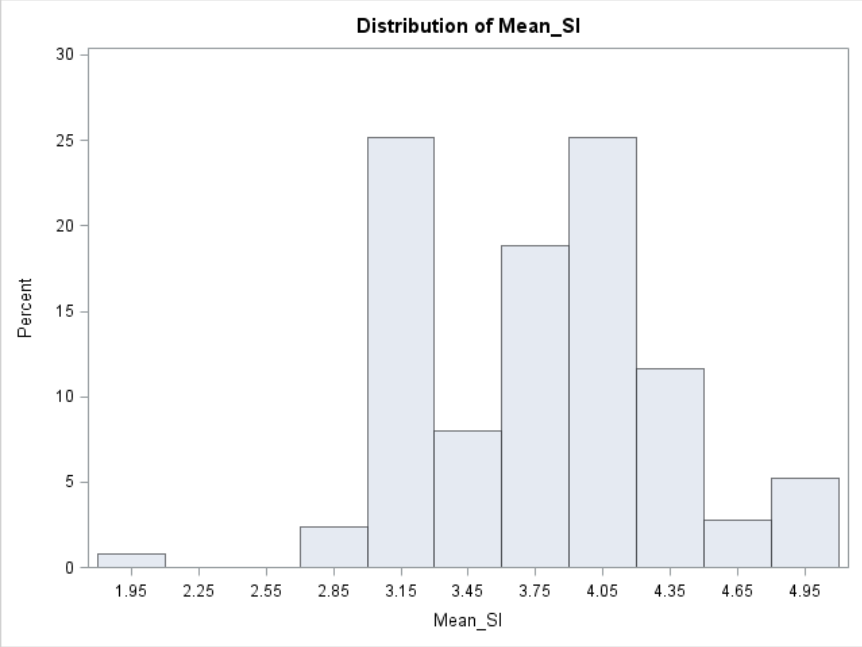
Summary Statistics
Histograms

The UNIVARIATE Procedure



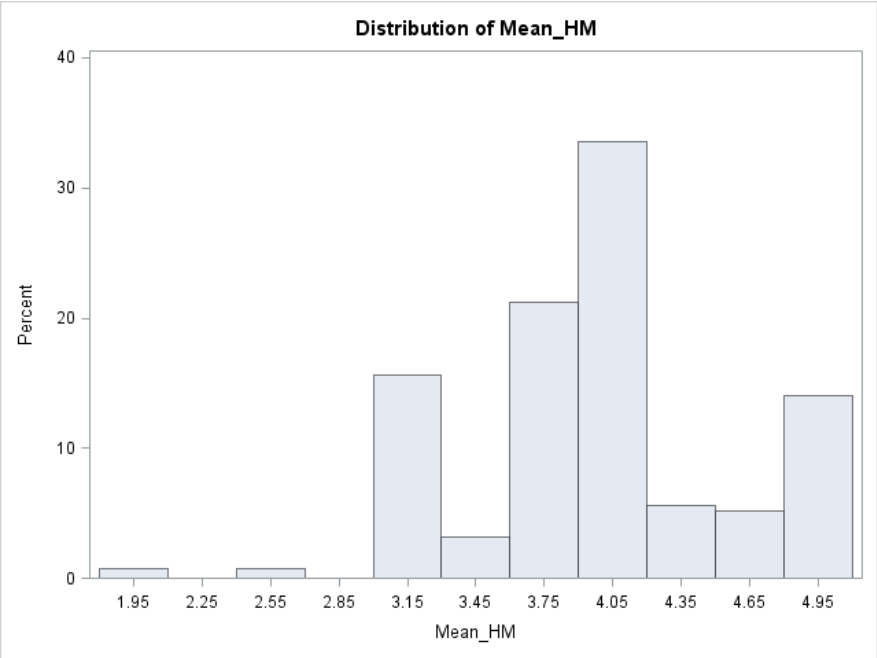
Summary Statistics
Histograms

The UNIVARIATE Procedure



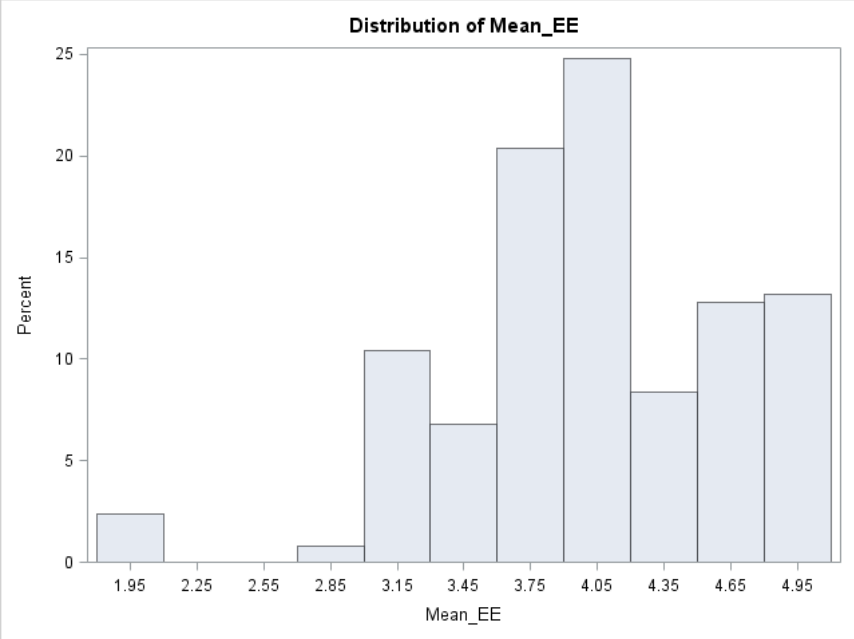
Summary Statistics
Histograms

The UNIVARIATE Procedure



Summary Statistics
Histograms

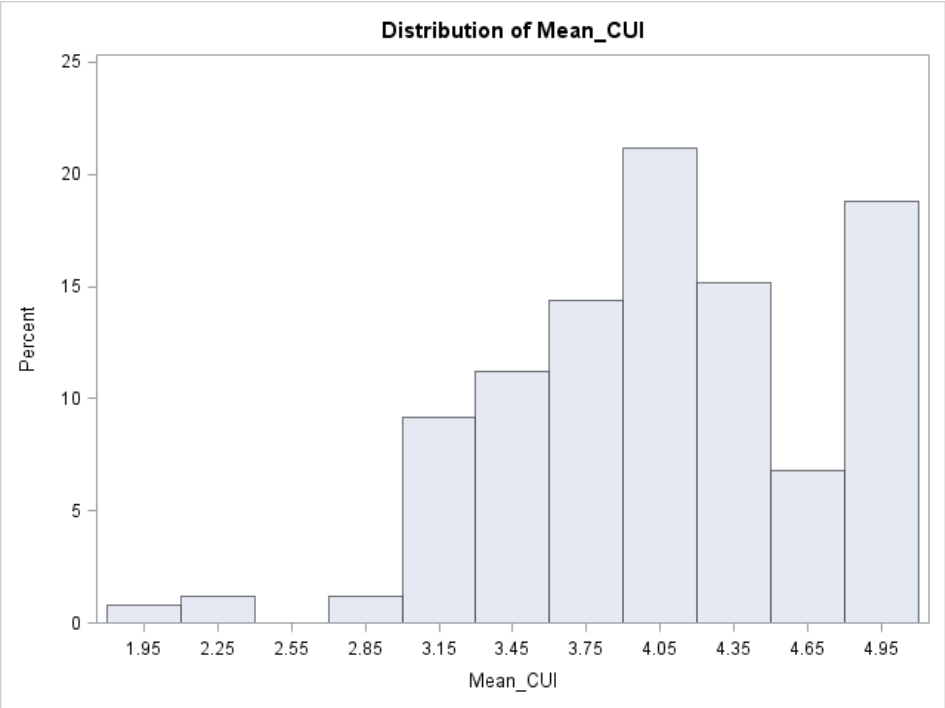
The UNIVARIATE Procedure



Summary Statistics

Histograms

The UNIVARIATE Procedure



Appendix 4.0: Pearson Correlation Analysis

Pearson Correlation Cronbach Alpha Analysis

The CORR Procedure

6 Variables:	Mean_PU Mean_SA Mean_SI Mean_HM Mean_EE Mean_CUI

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
Mean_PU	250	4.11680	0.50583	1029	2.00000	5.00000
Mean_SA	250	3.85440	0.53796	963.60000	2.20000	5.00000
Mean_SI	250	3.72640	0.57973	931.60000	2.00000	5.00000
Mean_HM	250	3.91680	0.62127	979.20000	2.00000	5.00000
Mean_EE	250	3.96400	0.64564	991.00000	2.00000	5.00000
Mean_CUI	250	4.01040	0.66494	1003	2.00000	5.00000

Cronbach Coefficient Alpha

Variables	Alpha
Raw	0.850934
Standardized	0.853375

Cronbach Coefficient Alpha with Deleted Variable

Deleted Variable	Raw Variables		Standardized Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
Mean_PU	0.549184	0.841574	0.553000	0.844881
Mean_SA	0.717379	0.812769	0.722613	0.813105
Mean_SI	0.673988	0.819065	0.673182	0.822596
Mean_HM	0.658046	0.821829	0.658643	0.825352
Mean_EE	0.581713	0.837709	0.577966	0.840343
Mean_CUI	0.655100	0.823211	0.652875	0.826440

Pearson Correlation Coefficients, N = 250 Prob > |r| under H0: Rho=0						
	Mean_PU	**Mean_SA**	**Mean_SI**	**Mean_HM**	**Mean_EE**	**Mean_CUI**
Mean_PU	1.00000	0.55805 <.0001	0.41455 <.0001	0.38939 <.0001	0.36906 <.0001	0.44103 <.0001
Mean_SA	0.55805 <.0001	1.00000	0.58361 <.0001	0.59999 <.0001	0.44875 <.0001	0.54271 <.0001
Mean_SI	0.41455 <.0001	0.58361 <.0001	1.00000	0.59620 <.0001	0.50534 <.0001	0.47457 <.0001
Mean_HM	0.38939 <.0001	0.59999 <.0001	0.59620 <.0001	1.00000	0.41301 <.0001	0.52824 <.0001
Mean_EE	0.36906 <.0001	0.44875 <.0001	0.50534 <.0001	0.41301 <.0001	1.00000	0.52137 <.0001
Mean_CUI	0.44103 <.0001	0.54271 <.0001	0.47457 <.0001	0.52824 <.0001	0.52137 <.0001	1.00000

Appendix 5.0: Multiple Linear Regression

Linear Regression Results

The REG Procedure
Model: Linear_Regression_Model
Dependent Variable: Mean_CUI

Number of Observations Read	250
Number of Observations Used	250

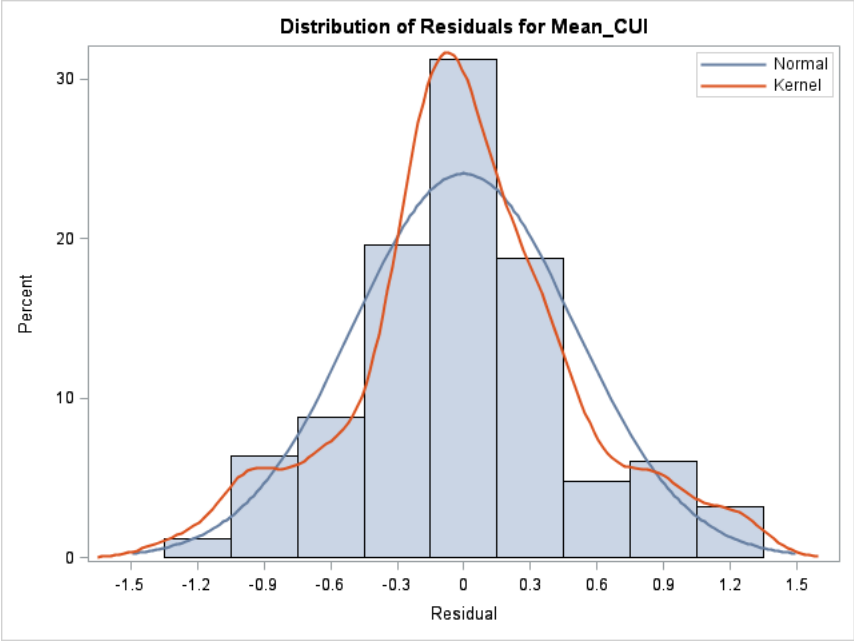
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	48.59885	9.71977	38.57	<.0001
Error	244	61.49411	0.25203		
Corrected Total	249	110.09296			

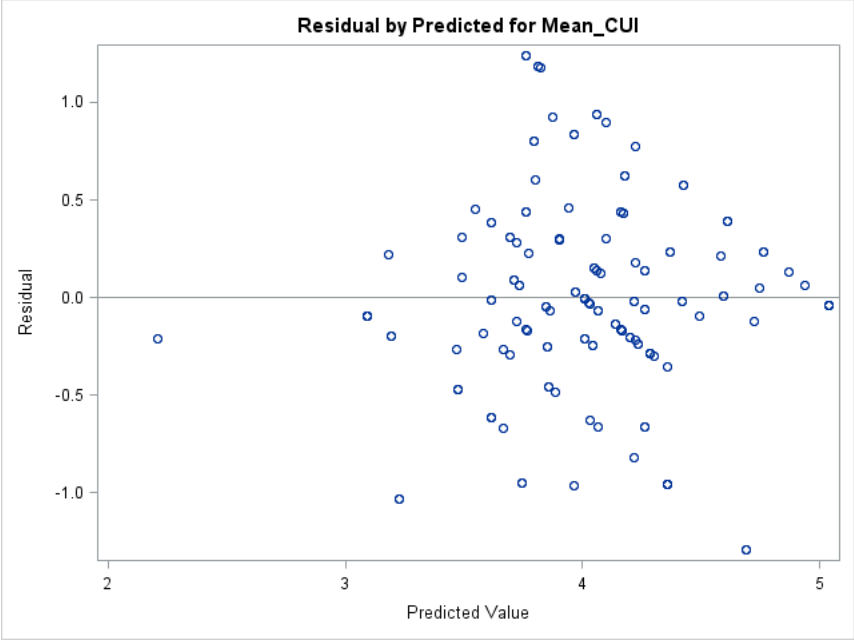
Root MSE	0.50202	R-Square	0.4414
Dependent Mean	4.01040	Adj R-Sq	0.4300
Coeff Var	12.51798		

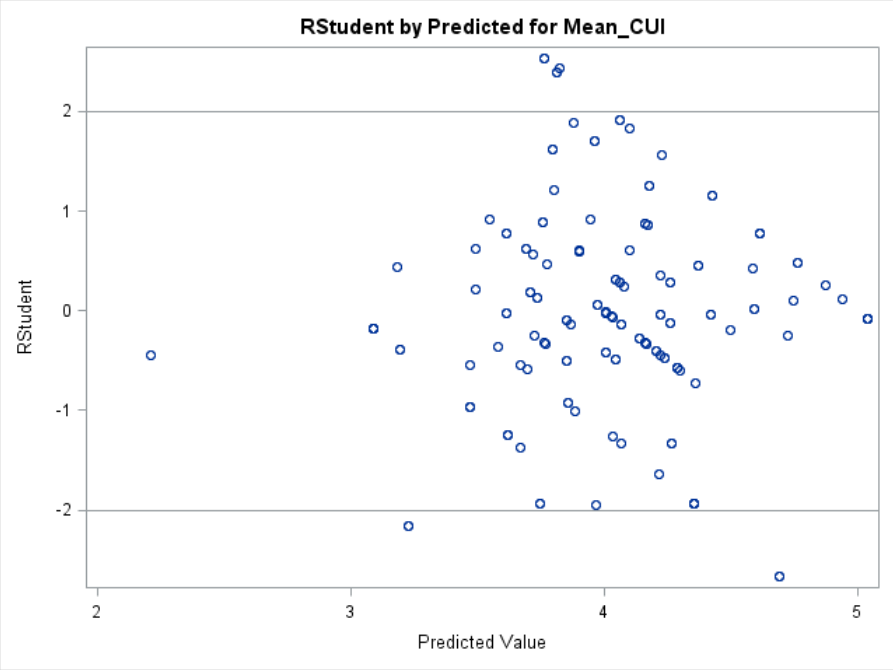
Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate
Intercept	1	0.17017	0.29683	0.57	0.5670	0
Mean_PU	1	0.17140	0.07708	2.22	0.0271	0.13038
Mean_SA	1	0.23224	0.08631	2.69	0.0076	0.18789
Mean_SI	1	0.03859	0.07640	0.51	0.6139	0.03365
Mean_HM	1	0.24654	0.06943	3.55	0.0005	0.23035
Mean_EE	1	0.28507	0.05918	4.82	<.0001	0.27680

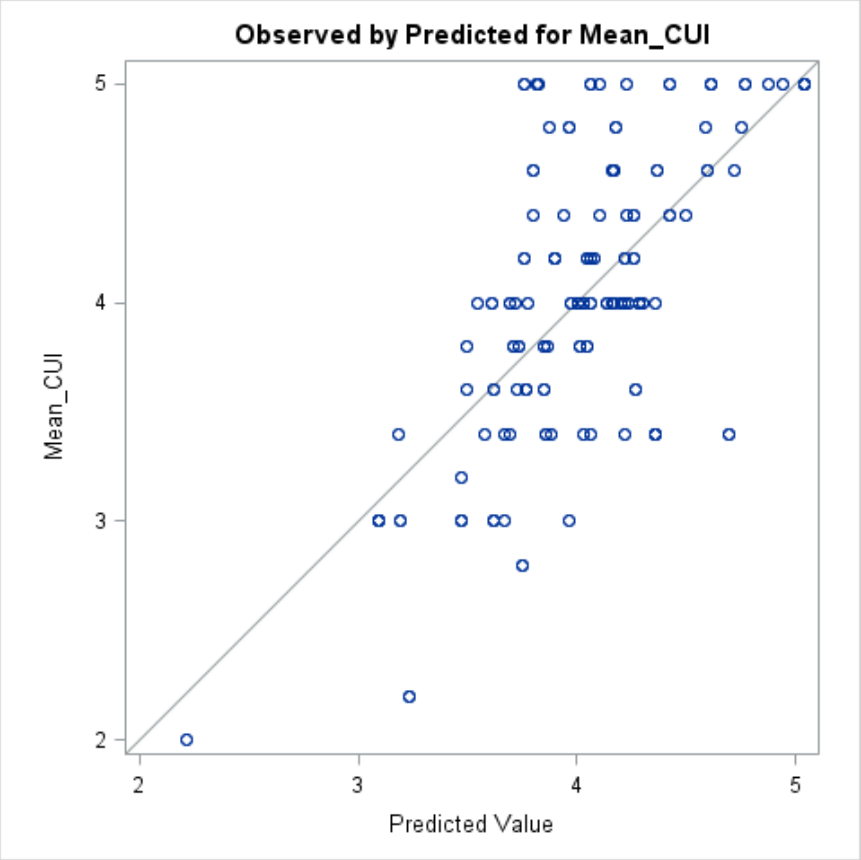
Linear Regression Results

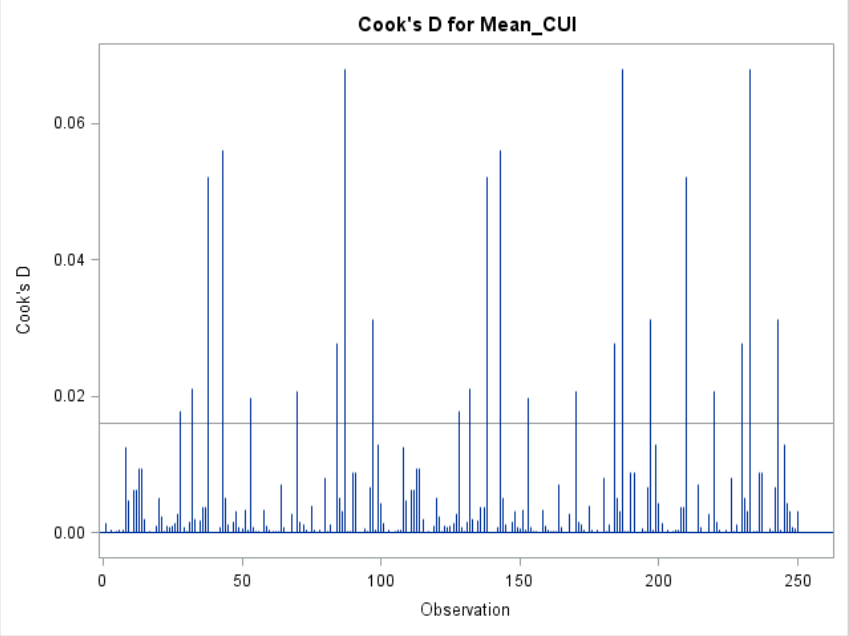
The REG Procedure
Model: Linear_Regression_Model
Dependent Variable: Mean_CUI

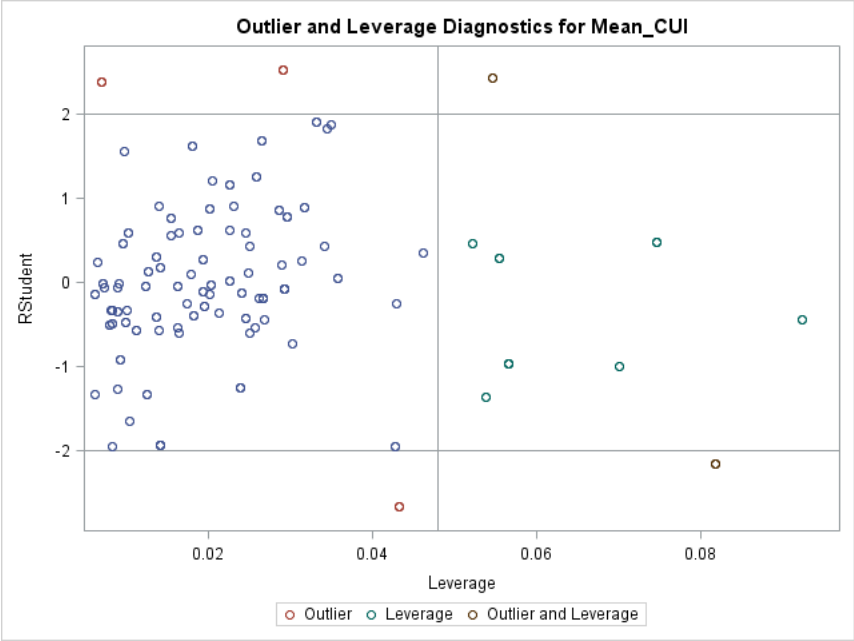


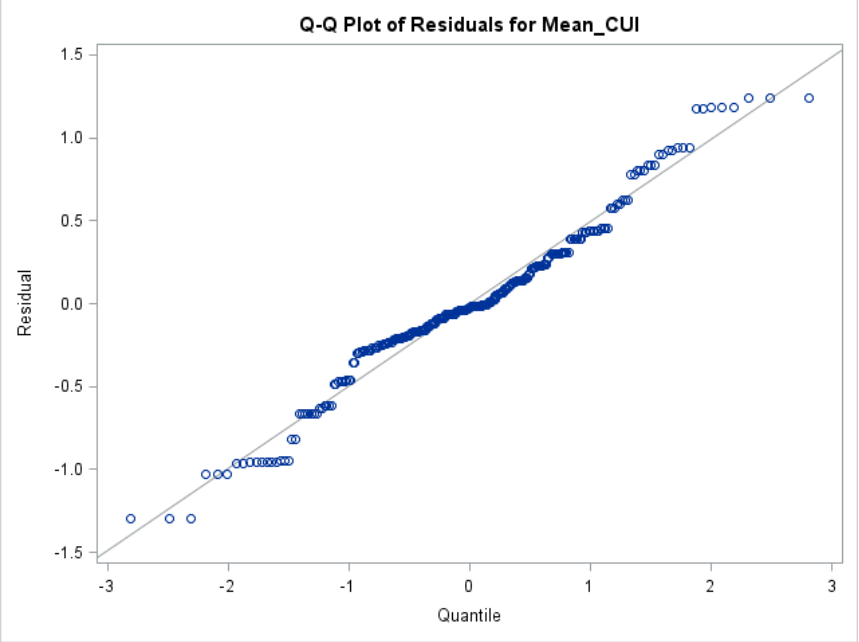


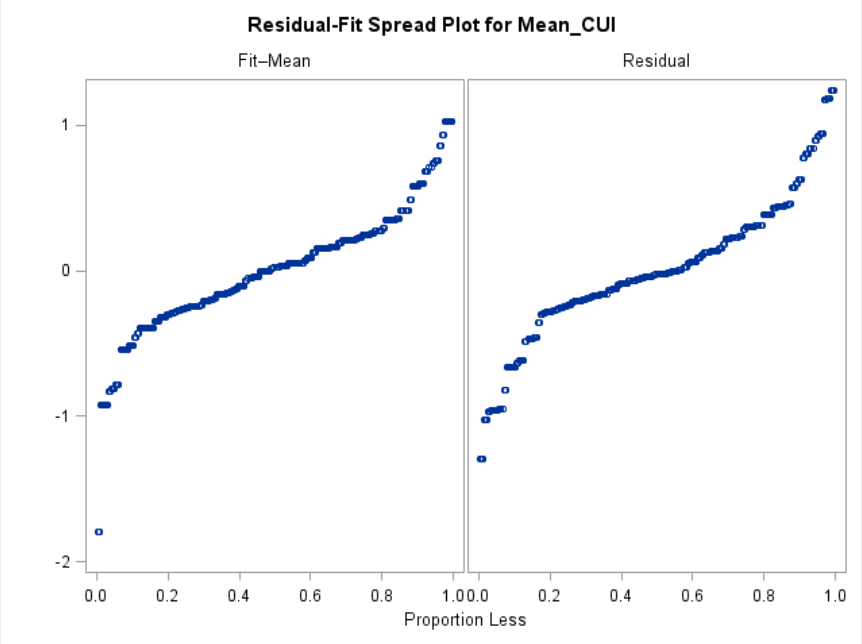

RStudent by Predicted for Mean_CUI
RStudent
2
1
0
-1
-2
2
3
4
5
Predicted Value

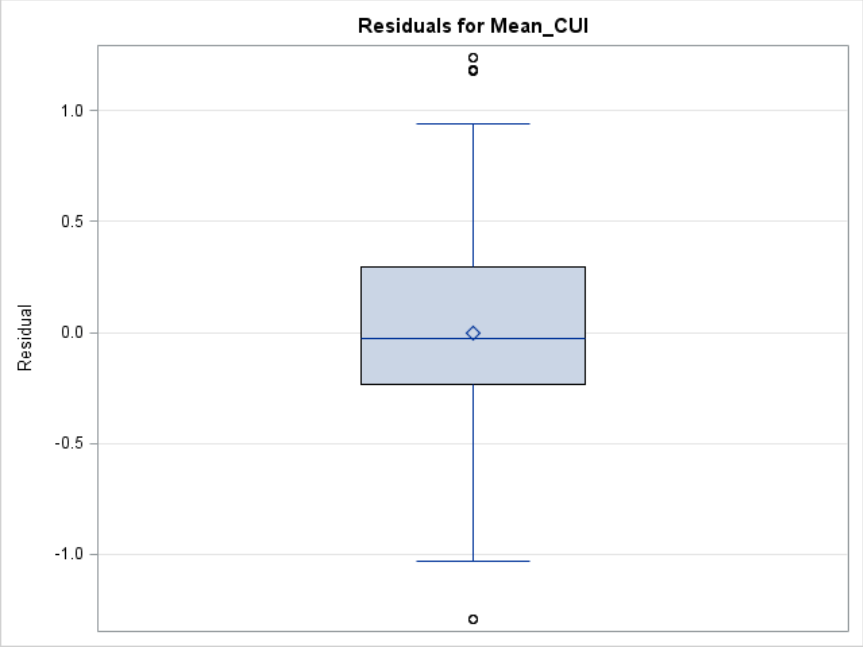

Observed by Predicted for Mean_CUI
Mean_CUI
5
4
3
2
2
3
4
5
Predicted Value

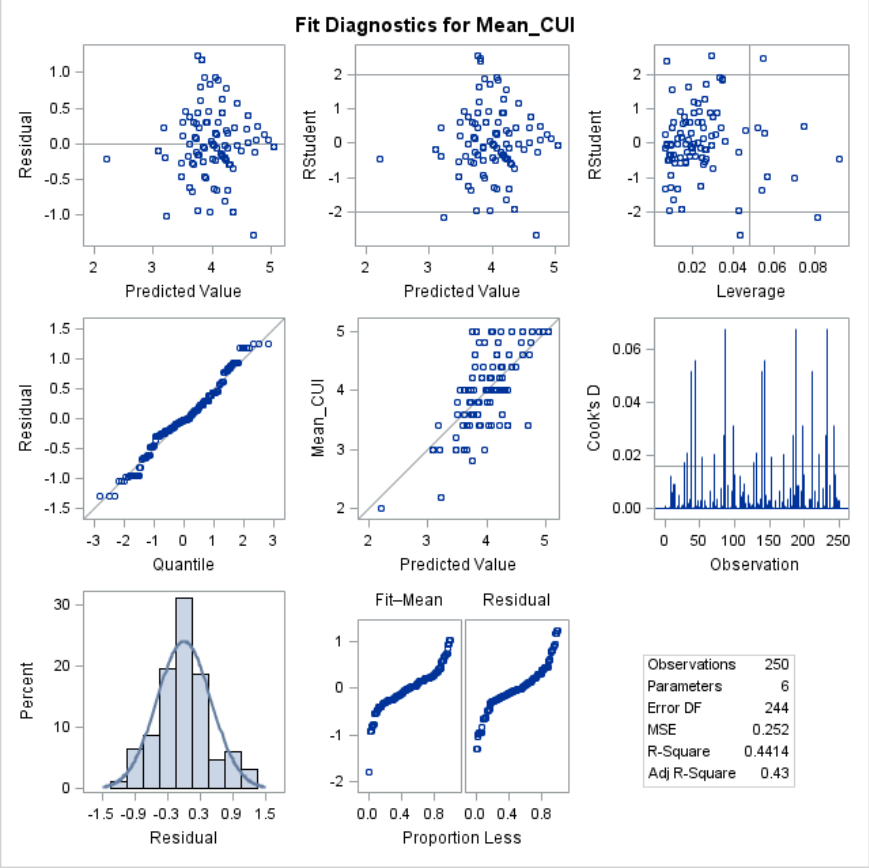

Cook's D for Mean_CUI
Cook's D
0.06
0.04
0.02
0.00
0
50
100
150
200
250
Observation

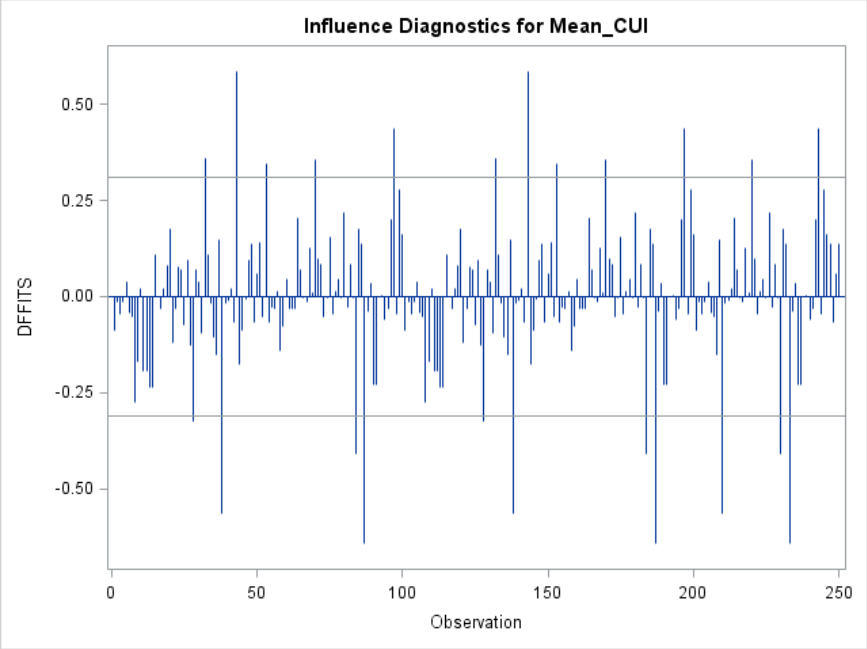

Outlier and Leverage Diagnostics for Mean_CUI
RStudent
2
1
0
-1
-2
0.02
0.04
0.06
0.08
Leverage
Outlier
Leverage
Outlier and Leverage

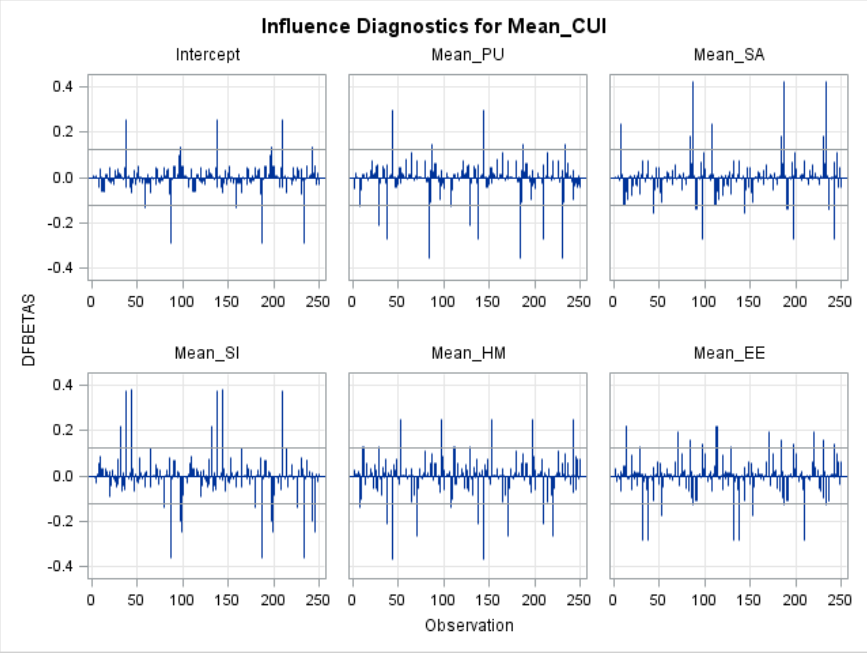

Q-Q Plot of Residuals for Mean_CUI
Residual
Quantile
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-3
-2
-1
0
1
2
3

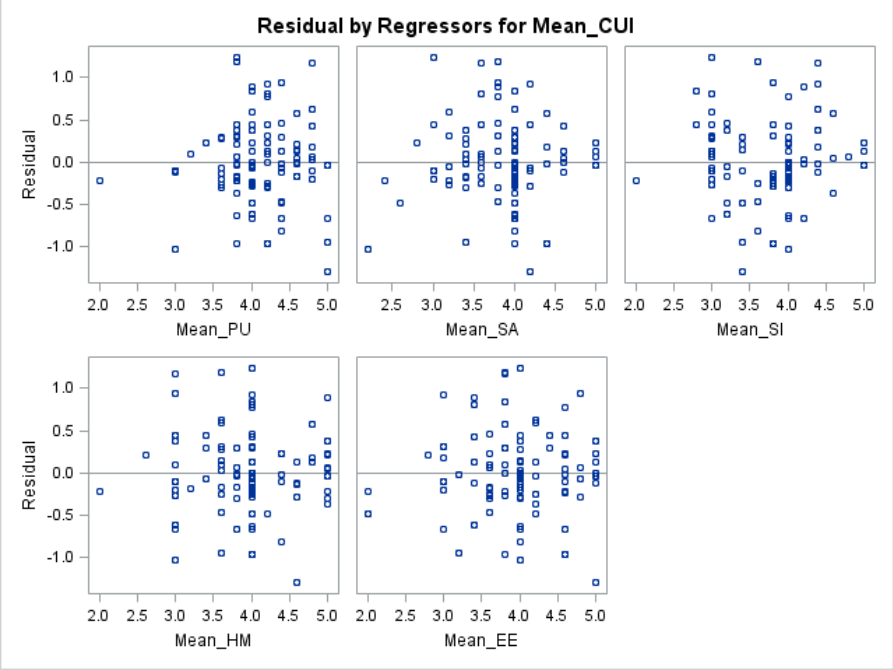

Residual-Fit Spread Plot for Mean_CUI
Fit–Mean
Residual
Proportion Less
1
0
-1
-2
0.0
0.2
0.4
0.6
0.8
1.0


Residuals for Mean_CUI
Residual
1.0
0.5
0.0
-0.5
-1.0


Fit Diagnostics for Mean_CUI
Residual
Predicted Value
RStudent
Predicted Value
RStudent
Leverage
Residual
Quantile
Mean_CUI
Predicted Value
Cook's D
Observation
Percent
Residual
Fit–Mean
Residual
Proportion Less
Observations 250
Parameters 6
Error DF 244
MSE 0.252
R-Square 0.4414
Adj R-Square 0.43


Influence Diagnostics for Mean_CUI
DFFITS
0.50
0.25
0.00
-0.25
-0.50
0
50
100
150
200
250
Observation


Influence Diagnostics for Mean_CUI
Intercept
Mean_PU
Mean_SA
Mean_SI
Mean_HM
Mean_EE
DFBETAS
0.4
0.2
0.0
-0.2
-0.4
0
50
100
150
200
250
Observation


Residual by Regressors for Mean_CUI
Residual
1.0
0.5
0.0
-0.5
-1.0
2.0 2.5 3.0 3.5 4.0 4.5 5.0
Mean_PU
Mean_SA
Mean_SI
Mean_HM
Mean_EE

Appendix 6.0: Cross tabulation on Respondent's Profile (Continuance usage intention by Gender)

Cross tabulation - Continuance usage intention by Gender

The FREQ Procedure

Table of Cat_CUI by Gender				
		Gender		
		1	2	Total
Cat_CUI				
2	Frequency	12	20	32
	Expected	17.28	14.72	
	Percent	4.80	8.00	12.80
	Row Pct	37.50	62.50	
3	Frequency	123	95	218
	Expected	117.72	100.28	
	Percent	49.20	38.00	87.20
	Row Pct	56.42	43.58	
Total	Frequency	135	115	250
	Percent	54.00	46.00	100.00

Statistics for Table of Cat_CUI by Gender

Statistic	DF	Value	Prob
Chi-Square	1	4.0221	0.0449
Likelihood Ratio Chi-Square	1	4.0259	0.0448
Continuity Adj. Chi-Square	1	3.2964	0.0694
Mantel-Haenszel Chi-Square	1	4.0060	0.0453
Phi Coefficient		-0.1268	
Contingency Coefficient		0.1258	
Cramer's V		-0.1268	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	12
Left-sided Pr <= F	0.0348
Right-sided Pr >= F	0.9860
Table Probability (P)	0.0208
Two-sided Pr <= P	0.0571

Sample Size = 250

Appendix 6.1: Cross tabulation on Respondent's Profile (Continuance usage intention by Age)

Cross tabulation - Continuance usage intention by Age

The FREQ Procedure

Table of Cat_CUI by Age									
		Age							
		1	2	3	4	5	6	7	Total
Cat_CUI									
2	Frequency	2	6	21	1	2	0	0	32
	Expected	0.512	3.2	23.168	2.816	1.408	0.64	0.256	
	Percent	0.80	2.40	8.40	0.40	0.80	0.00	0.00	12.80
	Row Pct	6.25	18.75	65.63	3.13	6.25	0.00	0.00	
3	Frequency	2	19	160	21	9	5	2	218
	Expected	3.488	21.8	157.83	19.184	9.592	4.36	1.744	
	Percent	0.80	7.60	64.00	8.40	3.60	2.00	0.80	87.20
	Row Pct	0.92	8.72	73.39	9.63	4.13	2.29	0.92	
Total	Frequency	4	25	181	22	11	5	2	250
	Percent	1.60	10.00	72.40	8.80	4.40	2.00	0.80	100.00

Statistics for Table of Cat_CUI by Age

Statistic	DF	Value	Prob
Chi-Square	6	10.6576	0.0996
Likelihood Ratio Chi-Square	6	9.6870	0.1385
Mantel-Haenszel Chi-Square	1	4.3509	0.0370
Phi Coefficient		0.2065	
Contingency Coefficient		0.2022	
Cramer's V		0.2065	
WARNING: 64% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Table Probability (P)	7.488E-05
Pr <= P	0.1180

Sample Size = 250

Appendix 6.2: Cross tabulation on Respondent's Profile (Continuance usage intention by Highest Academic Qualification)

Cross tabulation - Continuance usage intention by Qualification

The FREQ Procedure

Table of Cat_CUI by Highest Qualification										
		Highest Qualification								
		1	2	3	4	5	6	7	8	Total
Cat_CUI										
2	Frequency	8	2	0	3	2	2	0	15	32
	Expected	5.76	0.256	0.64	4.096	0.768	0.64	1.024	18.816	
	Percent	3.20	0.80	0.00	1.20	0.80	0.80	0.00	6.00	12.80
	Row Pct	25.00	6.25	0.00	9.38	6.25	6.25	0.00	46.88	
3	Frequency	37	0	5	29	4	3	8	132	218
	Expected	39.24	1.744	4.36	27.904	5.232	4.36	6.976	128.18	
	Percent	14.80	0.00	2.00	11.60	1.60	1.20	3.20	52.80	87.20
	Row Pct	16.97	0.00	2.29	13.30	1.83	1.38	3.67	60.55	
Total	Frequency	45	2	5	32	6	5	8	147	250
	Percent	18.00	0.80	2.00	12.80	2.40	2.00	3.20	58.80	100.00

Statistics for Table of Cat_CUI by Highest Qualification

Statistic	DF	Value	Prob
Chi-Square	7	23.3367	0.0015
Likelihood Ratio Chi-Square	7	17.9964	0.0120
Mantel-Haenszel Chi-Square	1	2.6512	0.1035
Phi Coefficient		0.3055	
Contingency Coefficient		0.2922	
Cramer's V		0.3055	
WARNING: 56% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Table Probability (P)	7.309E-07
Pr <= P	0.0114

Sample Size = 250

Appendix 6.3: Cross tabulation on Respondent's Profile (Continuance usage intention by Monthly Income Level)

Cross tabulation - Continuance usage intention by Income

The FREQ Procedure

Table of Cat_CUI by Income level							
		Income level					
		1	2	3	4	6	Total
Cat_CUI							
2	Frequency	24	0	5	0	3	32
	Expected	23.552	1.28	2.944	1.152	3.072	
	Percent	9.60	0.00	2.00	0.00	1.20	12.80
	Row Pct	75.00	0.00	15.63	0.00	9.38	
3	Frequency	160	10	18	9	21	218
	Expected	160.45	8.72	20.056	7.848	20.928	
	Percent	64.00	4.00	7.20	3.60	8.40	87.20
	Row Pct	73.39	4.59	8.26	4.13	9.63	
Total	Frequency	184	10	23	9	24	250
	Percent	73.60	4.00	9.20	3.60	9.60	100.00

Statistics for Table of Cat_CUI by Income level

Statistic	DF	Value	Prob
Chi-Square	4	4.4473	0.3488
Likelihood Ratio Chi-Square	4	6.6194	0.1574
Mantel-Haenszel Chi-Square	1	0.0140	0.9059
Phi Coefficient		0.1334	
Contingency Coefficient		0.1322	
Cramer's V		0.1334	
WARNING: 40% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Table Probability (P)	0.0020
Pr <= P	0.4516

Sample Size = 250

Appendix 6.4: Cross tabulation on Respondent's Profile (Continuance usage intention by Frequency of using per week)

Cross tabulation - Continuance usage intention by Frequency of using per week

The FREQ Procedure

Table of Cat_CUI by Frequency per week					
		Frequency per week			
		3	4	5	Total
Cat_CUI					
2	Frequency	2	1	29	32
	Expected	0.256	1.664	30.08	
	Percent	0.80	0.40	11.60	12.80
	Row Pct	6.25	3.13	90.63	
3	Frequency	0	12	206	218
	Expected	1.744	11.336	204.92	
	Percent	0.00	4.80	82.40	87.20
	Row Pct	0.00	5.50	94.50	
Total	Frequency	2	13	235	250
	Percent	0.80	5.20	94.00	100.00

Statistics for Table of Cat_CUI by Frequency per week

Statistic	DF	Value	Prob
Chi-Square	2	13.9733	0.0009
Likelihood Ratio Chi-Square	2	8.6155	0.0135
Mantel-Haenszel Chi-Square	1	3.5862	0.0583
Phi Coefficient		0.2364	
Contingency Coefficient		0.2301	
Cramer's V		0.2364	
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Table Probability (P)	0.0054
Pr <= P	0.0210

Sample Size = 250

Appendix 6.5: Cross tabulation on Respondent's Profile (Continuance usage intention by Duration of using SNS per week)

Cross tabulation - Continuance usage intention by Duration per week

The FREQ Procedure

Table of Cat_CUI by Duration per week									
		Duration per week							
		1	2	3	4	5	6	7	Total
Cat_CUI									
2	Frequency	2	11	15	2	1	1	0	32
	Expected	1.664	8.192	9.856	2.944	1.792	1.664	5.888	
	Percent	0.80	4.40	6.00	0.80	0.40	0.40	0.00	12.80
	Row Pct	6.25	34.38	46.88	6.25	3.13	3.13	0.00	
3	Frequency	11	53	62	21	13	12	46	218
	Expected	11.336	55.808	67.144	20.056	12.208	11.336	40.112	
	Percent	4.40	21.20	24.80	8.40	5.20	4.80	18.40	87.20
	Row Pct	5.05	24.31	28.44	9.63	5.96	5.50	21.10	
Total	Frequency	13	64	77	23	14	13	46	250
	Percent	5.20	25.60	30.80	9.20	5.60	5.20	18.40	100.00

Statistics for Table of Cat_CUI by Duration per week

Statistic	DF	Value	Prob
Chi-Square	6	12.0651	0.0605
Likelihood Ratio Chi-Square	6	17.6028	0.0073
Mantel-Haenszel Chi-Square	1	9.7346	0.0018
Phi Coefficient		0.2197	
Contingency Coefficient		0.2146	
Cramer's V		0.2197	
WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Table Probability (P)	3.635E-07
Pr <= P	0.0170

Sample Size = 250

Appendix 7.0: Summary of T-test (Gender)

t Test - Gender vs CUI

The TTEST Procedure

Variable: Mean_CUI

Gender	N	Mean	Std Dev	Std Err	Minimum	Maximum
1	135	4.2044	0.5345	0.0460	2.8000	5.0000
2	115	4.0765	0.5629	0.0525	3.0000	5.0000
Diff (1-2)		0.1279	0.5477	0.0695		

Gender	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
1		4.2044	4.1135	4.2954	0.5345	0.4774	0.6071
2		4.0765	3.9725	4.1805	0.5629	0.4984	0.6468
Diff (1-2)	Pooled	0.1279	-0.00898	0.2648	0.5477	0.5035	0.6006
Diff (1-2)	Satterthwaite	0.1279	-0.00958	0.2654			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	248	1.84	0.0669
Satterthwaite	Unequal	237.27	1.83	0.0681

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	114	134	1.11	0.5616

Appendix 8.0: Summary of Anova (Age)

Anova test - Age vs CUI

The ANOVA Procedure

Class Level Information		
Class	**Levels**	**Values**
Age	7	1 2 3 4 5 6 7

Number of Observations Read	250
Number of Observations Used	250

Anova test - Age vs CUI

The ANOVA Procedure

Dependent Variable: Mean_CUI

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	7.05246136	1.17541023	4.18	0.0005
Error	243	68.36769864	0.28134855		
Corrected Total	249	75.42016000			

R-Square	Coeff Var	Root MSE	Mean_CUI Mean
0.093509	12.79484	0.530423	4.145600

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Age	6	7.05246136	1.17541023	4.18	0.0005

Anova test - Age vs CUI

The ANOVA Procedure

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Age	5	1.1390	0.2278	2.15	0.0598
Error	242	25.5851	0.1057		

Brown and Forsythe's Test for Homogeneity of Mean_CUI Variance ANOVA of Absolute Deviations from Group Medians					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Age	5	1.5945	0.3189	2.40	0.0377
Error	242	32.1165	0.1327		

Bartlett's Test for Homogeneity of Mean_CUI Variance			
Source	**DF**	**Chi-Square**	**Pr > ChiSq**
Age	6	16.5785	0.0110

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Age	6.0000	3.99	0.0235
Error	10.7742		

Anova test - Age vs CUI

The ANOVA Procedure

Level of Age	N	Mean_CUI	
		Mean	**Std Dev**
1	4	3.50000000	0.57735027
2	25	3.88000000	0.47958315
3	181	4.17127072	0.54247687
4	22	4.50000000	0.61952363
5	11	3.90909091	0.27369525
6	5	4.12000000	0.10954451
7	2	3.90000000	0.14142136

Anova test - Age vs CUI

The ANOVA Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	243
Error Mean Square	0.281349
Harmonic Mean of Cell Sizes	6.184355

Note: Cell sizes are not equal.

Number of Means	2	3	4	5	6	7
Critical Range	0.7423538	0.8066083	0.8415795	0.8652143	0.8664945	0.8968432

Means with the same letter are not significantly different.

REGWQ Grouping		Mean	N	Age
	A	4.5000	22	4
	A			
B	A	4.1713	181	3
B	A			
B	A	4.1200	5	6
B	A			
B	A	3.9091	11	5
B	A			
B	A	3.9000	2	7
B	A			
B	A	3.8800	25	2
B				
B		3.5000	4	1

Anova test - Age vs CUI

Means and Descriptive Statistics

Age	Mean of Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
1	3.50000	0.57735	0.28868	4	0
2	3.88000	0.47958	0.09592	25	0
3	4.17127	0.54248	0.04032	181	0
4	4.50000	0.61952	0.13208	22	0
5	3.90909	0.27370	0.08252	11	0
6	4.12000	0.10954	0.04899	5	0
7	3.90000	0.14142	0.10000	2	0

Appendix 8.1: Summary of Anova (Highest Academic Qualification)

Anova test - Academic Qualification vs CUI

The ANOVA Procedure

Class Level Information		
Class	**Levels**	**Values**
Highest Qualification	8	1 2 3 4 5 6 7 8

Number of Observations Read	250
Number of Observations Used	250

Anova test - Academic Qualification vs CUI

The ANOVA Procedure

Dependent Variable: Mean_CUI

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	7.08828018	1.01261145	3.59	0.0011
Error	242	68.33187982	0.28236314		
Corrected Total	249	75.42016000			

R-Square	Coeff Var	Root MSE	Mean_CUI Mean
0.093984	12.81789	0.531379	4.145600

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Highest Qualificatio	7	7.08828018	1.01261145	3.59	0.0011

Anova test - Academic Qualification vs CUI

The ANOVA Procedure

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Highest Qualificatio	6	2.0207	0.3368	3.51	0.0024
Error	241	23.1467	0.0960		

Brown and Forsythe's Test for Homogeneity of Mean_CUI Variance ANOVA of Absolute Deviations from Group Medians					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Highest Qualificatio	6	2.1583	0.3597	3.46	0.0027
Error	241	25.0752	0.1040		

Bartlett's Test for Homogeneity of Mean_CUI Variance			
Source	**DF**	**Chi-Square**	**Pr > ChiSq**
Highest Qualificatio	7	19.2602	0.0074

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Highest Qualificatio	7.0000	9.87	0.0003
Error	12.5656		

Anova test - Academic Qualification vs CUI

The ANOVA Procedure

Level of Highest Qualification	**N**	**Mean_CUI**	
		Mean	**Std Dev**
1	45	4.11111111	0.56977756
2	2	3.30000000	0.14142136
3	5	4.36000000	0.32863353
4	32	3.92500000	0.30795894
5	6	3.56666667	0.46332134
6	5	3.84000000	0.76681158
7	8	4.17500000	0.36154431
8	147	4.24081633	0.56322884

Anova test - Academic Qualification vs CUI

The ANOVA Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	242
Error Mean Square	0.282363
Harmonic Mean of Cell Sizes	6.390074

Note: Cell sizes are not equal.

Number of Means	2	3	4	5	6	7	8
Critical Range	0.7460468	0.8089227	0.8432866	0.8665122	0.8838789	0.8839089	0.9089802

Means with the same letter are not significantly different.				
REGWQ Grouping		Mean	N	Highest Qualification
	A	4.3600	5	3
	A			
	A	4.2408	147	8
	A			
B	A	4.1750	8	7
B	A			
B	A	4.1111	45	1
B	A			
B	A	3.9250	32	4
B	A			
B	A	3.8400	5	6
B	A			
B	A	3.5667	6	5
B				
B		3.3000	2	2

Anova test - Academic Qualification vs CUI

Means and Descriptive Statistics

Highest Qualification	Mean of Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
1	4.11111	0.56978	0.08494	45	0
2	3.30000	0.14142	0.10000	2	0
3	4.36000	0.32863	0.14697	5	0
4	3.92500	0.30796	0.05444	32	0
5	3.56667	0.46332	0.18915	6	0
6	3.84000	0.76681	0.34293	5	0
7	4.17500	0.36154	0.12783	8	0
8	4.24082	0.56323	0.04645	147	0

Appendix 8.2: Summary of Anova (Monthly Income Level)

Anova test - Income level vs CUI

The ANOVA Procedure

Class Level Information		
Class	Levels	Values
Income level	5	1 2 3 4 6

Number of Observations Read	250
Number of Observations Used	250

Anova test - Income level vs CUI

The ANOVA Procedure

Dependent Variable: Mean_CUI

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	3.39655130	0.84913783	2.89	0.0230
Error	245	72.02360870	0.29397391		
Corrected Total	249	75.42016000			

R-Square	Coeff Var	Root MSE	Mean_CUI Mean
0.045035	13.07877	0.542194	4.145600

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Income level	4	3.39655130	0.84913783	2.89	0.0230

Anova test - Income level vs CUI

The ANOVA Procedure

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Income level	4	0.5931	0.1483	1.20	0.3102
Error	245	30.2065	0.1233		

Brown and Forsythe's Test for Homogeneity of Mean_CUI Variance ANOVA of Absolute Deviations from Group Medians					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Income level	4	0.2621	0.0655	0.51	0.7303
Error	245	31.6274	0.1291		

Bartlett's Test for Homogeneity of Mean_CUI Variance			
Source	**DF**	**Chi-Square**	**Pr > ChiSq**
Income level	4	3.3951	0.4940

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Income level	4.0000	3.16	0.0293
Error	27.6697		

Anova test - Income level vs CUI

The ANOVA Procedure

Level of		Mean_CUI	
Income level	**N**	**Mean**	**Std Dev**
1	184	4.10326087	0.52769239
2	10	4.32000000	0.41311822
3	23	4.09565217	0.63780751
4	9	4.66666667	0.50000000
6	24	4.25000000	0.61077285

Anova test - Income level vs CUI

The ANOVA Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	245
Error Mean Square	0.293974
Harmonic Mean of Cell Sizes	16.57326

Note: Cell sizes are not equal.

Number of Means	2	3	4	5
Critical Range	0.439941	0.4807051	0.4872142	0.5176236

Means with the same letter are not significantly different.				
REGWQ Grouping		Mean	N	Income level
	A	4.6667	9	4
	A			
B	A	4.3200	10	2
B	A			
B	A	4.2500	24	6
B				
B		4.1033	184	1
B				
B		4.0957	23	3

Anova test - Income level vs CUI

Means and Descriptive Statistics

Income level	Mean of Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
1	4.10326	0.52769	0.03890	184	0
2	4.32000	0.41312	0.13064	10	0
3	4.09565	0.63781	0.13299	23	0
4	4.66667	0.50000	0.16667	9	0
6	4.25000	0.61077	0.12467	24	0

Appendix 8.3: Summary of Anova (Frequency of using SNS per week)

Anova test - Frequency per week vs CUI

The ANOVA Procedure

Class Level Information

Class	Levels	Values
Frequency per week	3	3 4 5

Number of Observations Read	250
Number of Observations Used	250

Anova test - Frequency per week vs CUI

The ANOVA Procedure

Dependent Variable: Mean_CUI

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2.67394723	1.33697362	4.54	0.0116
Error	247	72.74621277	0.29451908		
Corrected Total	249	75.42016000			

R-Square	Coeff Var	Root MSE	Mean_CUI Mean
0.035454	13.09089	0.542696	4.145600

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Frequency per week	2	2.67394723	1.33697362	4.54	0.0116

Anova test - Frequency per week vs CUI

The ANOVA Procedure

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Frequency per week	1	0.2439	0.2439	2.02	0.1563
Error	246	29.6785	0.1206		

Brown and Forsythe's Test for Homogeneity of Mean_CUI Variance ANOVA of Absolute Deviations from Group Medians					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Frequency per week	1	0.4548	0.4548	3.47	0.0638
Error	246	32.2676	0.1312		

Bartlett's Test for Homogeneity of Mean_CUI Variance			
Source	**DF**	**Chi-Square**	**Pr > ChiSq**
Frequency per week	1	1.4554	0.2277

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Frequency per week	1.0000	0.16	0.6992
Error	14.4177		

Anova test - Frequency per week vs CUI

The ANOVA Procedure

Level of Frequency per week	N	Mean_CUI	
		Mean	**Std Dev**
3	2	3.00000000	0.00000000
4	13	4.20000000	0.41633320
5	235	4.15234043	0.54953832

Anova test - Frequency per week vs CUI

The ANOVA Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	247
Error Mean Square	0.294519
Harmonic Mean of Cell Sizes	5.161926

Note: Cell sizes are not equal.

Number of Means	**2**	**3**
Critical Range	0.6653454	0.7965203

Means with the same letter are not significantly different.			
REGWQ Grouping	**Mean**	**N**	**Frequency per week**
A	4.2000	13	4
A			
A	4.1523	235	5
B	3.0000	2	3

Anova test - Frequency per week vs CUI

Means and Descriptive Statistics

Frequency per week	Mean of Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
3	3.00000	0.00000	0.00000	2	0
4	4.20000	0.41633	0.11547	13	0
5	4.15234	0.54954	0.03585	235	0

Appendix 8.4: Summary of Anova (Duration of using SNS per week)

Anova test - Duration per week vs CUI

The ANOVA Procedure

Class Level Information		
Class	**Levels**	**Values**
Duration per week	7	1 2 3 4 5 6 7

Number of Observations Read	250
Number of Observations Used	250

Anova test - Duration per week vs CUI

The ANOVA Procedure

Dependent Variable: Mean_CUI

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	5.73218178	0.95536363	3.33	0.0036
Error	243	69.68797822	0.28678180		
Corrected Total	249	75.42016000			

R-Square	Coeff Var	Root MSE	Mean_CUI Mean
0.076003	12.91780	0.535520	4.145600

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Duration per week	6	5.73218178	0.95536363	3.33	0.0036

Anova test - Duration per week vs CUI

The ANOVA Procedure

Levene's Test for Homogeneity of Mean_CUI Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Duration per week	6	2.6275	0.4379	3.99	0.0008
Error	243	26.6682	0.1097		

Brown and Forsythe's Test for Homogeneity of Mean_CUI Variance ANOVA of Absolute Deviations from Group Medians					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Duration per week	6	2.3094	0.3849	3.51	0.0024
Error	243	26.6546	0.1097		

Bartlett's Test for Homogeneity of Mean_CUI Variance			
Source	**DF**	**Chi-Square**	**Pr > ChiSq**
Duration per week	6	28.4987	<.0001

Welch's ANOVA for Mean_CUI			
Source	**DF**	**F Value**	**Pr > F**
Duration per week	6.0000	10.64	<.0001
Error	60.9747		

Anova test - Duration per week vs CUI

The ANOVA Procedure

Level of Duration per week	N	Mean_CUI	
		Mean	**Std Dev**
1	13	4.04615385	0.54865804
2	64	4.11875000	0.59170858
3	77	4.09090909	0.60484487
4	23	4.06956522	0.55794655
5	14	3.81428571	0.18337495
6	13	4.20000000	0.42426407
7	46	4.42608696	0.38783432

Anova test - Duration per week vs CUI

The ANOVA Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for Mean_CUI

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	243
Error Mean Square	0.286782
Harmonic Mean of Cell Sizes	21.93641

Note: Cell sizes are not equal.

Number of Means	2	3	4	5	6	7
Critical Range	0.3979502	0.4323949	0.4511417	0.4638115	0.4644978	0.4807667

Means with the same letter are not significantly different.				
REGWQ Grouping		Mean	N	Duration per week
	A	4.42614	67	
	A			
B	A	4.20001	36	
B	A			
B	A	4.11886	42	
B	A			
B	A	4.09097	73	
B	A			
B	A	4.06962	34	
B	A			
B	A	4.04621	31	
B				
B		3.81431	45	

Anova test - Duration per week vs CUI

Means and Descriptive Statistics

Duration per week	Mean of Mean_CUI	Std. Dev. of Mean_CUI	Std. Error of Mean_CUI	Number of non-missing values for Mean_CUI	Number of missing values for Mean_CUI
.	4.14560	0.55036	0.03481	250	0
1	4.04615	0.54866	0.15217	13	0
2	4.11875	0.59171	0.07396	64	0
3	4.09091	0.60484	0.06893	77	0
4	4.06957	0.55795	0.11634	23	0
5	3.81429	0.18337	0.04901	14	0
6	4.20000	0.42426	0.11767	13	0
7	4.42609	0.38783	0.05718	46	0