

# **IMPLICATIONS OF SOCIAL MEDIA ON END-USER PERSONALITY**

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## ABSTRAK

Media sosial memainkan peranan yang semakin penting dalam kehidupan hari ini. Di Malaysia, penggunaan media sosial telah menunjukkan perkembangan yang amat ketara sejak beberapa tahun kebelakangan ini. Kepentingan kajian mengenai media sosial dan personaliti semakin meningkat hari demi hari seiring dengan populariti penggunaan media sosial, namun penyelidikan berkaitan penggunaan media sosial dengan personaliti masih agak terhad. Kajian sedia ada terhadap penggunaan media sosial dan implikasinya terhadap personaliti pengguna akhir di Malaysia juga terhad. Kajian yang dijalankan ini menggariskan dua objektif, iaitu untuk mengenal pasti profil penggunaan media sosial dalam kalangan pengguna di Malaysia, termasuk pengalaman, kekerapan penggunaan, tujuan, dan sebab-sebab penggunaan media sosial, dan untuk mengkaji kesan penggunaan media sosial kepada lima faktor personaliti. Kajian ini menggunakan keratan rentas dengan berpandukan borang soal selidik bercetak dan atas talian yang ditadbir sendiri dan diedarkan dalam kalangan pelajar universiti yang menggunakan media sosial. Populasi kajian ini adalah pelajar di salah sebuah universiti awam di Malaysia. Pemilihan subjek yang dikaji telah dijalankan berdasarkan penggunaan aktif media sosial dalam kehidupan seharian. Berbekalkan Model Lima Faktor personaliti, satu model kajian yang mengkaji kesan media sosial kepada personaliti telah dibangunkan. Borang soal selidik untuk profil media sosial disesuaikan daripada laporan Pew Internet dan item Model Lima Faktor telah menggunakan *International Personality Item Pool*. Hasil kajian mendapati majoriti responden membelanjakan kurang daripada RM150 sebulan untuk telefon dan Internet, manakala lebih daripada 95% responden memiliki komputer riba dan hampir 79% memiliki telefon pintar. Tujuan tertinggi responden menggunakan media sosial adalah untuk berkomunikasi, sama ada dengan rakan-rakan atau ahli keluarga. Model kajian telah disahkan melalui data kajian yang dikumpul daripada 382 pengguna media sosial, dan keputusan analisis menunjukkan bukti kepada hubungan dalam hipotesis. Kajian ini telah menyumbang kepada pengetahuan baharu mengenai literatur media sosial dan personaliti, dan ia juga menyumbang kepada profil media sosial dalam kalangan pelajar universiti. Kajian ini memanjangkan lagi kerangka teori dalam literatur sedia ada dengan lebih baik melalui kajian mengenai isu-isu berkaitan personaliti dan media sosial.

## ABSTRACT

Social media are playing an increasing role in today's living. In Malaysia, the usage of social media has shown a significant growth in the last few years. The importance of studies concerning social media and personality is increasing day by day in line with the popularity of social media use, yet research into social media use in relation to personality traits remains rather limited. The existing literature on social media usage and its implications on end-user personality in Malaysia are also limited. The current research outlined two objectives, which are to identify the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of social media usage, and to examine the effects of social media usage on the five-factor personality traits. The study employed a cross-sectional survey using self-administered questionnaire which was distributed among university students who use social media via printed and online questionnaires. The population of this study is students in one of the public universities in Malaysia. The selections of subject being studied have been carried out based on active use of social media in everyday life. Drawing upon the Five-Factor Model of personality traits, a research model that examines the effect of social media on personality traits was developed. Questionnaires for the social media profile are adapted from Pew Internet Report and the Five-Factor Model items were adopted from the International Personality Item Pool. Result shows that majority of the respondents spent below RM150 on telephone and Internet while more than 95% owned notebook computer and almost 79% owned smartphones. The highest score for purpose of using social media is to communicate, either with friends or families. The research model has been validated through survey data collected from 382 social media users, and the analysis results provide evidence to the hypothesized relationships. The current study generates new knowledge on the literature of social media and personality traits; it also sheds lights on the social media profiling among university students. This research extends better theoretical framework to the existing literature through survey regarding the issues related to personality traits and social media.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND

The term social media becomes a phenomenon with the emergence of Web 2.0 and supports from the hardware and software development. Social media are playing an increasing role in today's living. It is such a common scenario today to see people browsing and surfing social networking sites, taking selfie photos and instantly upload on their pages, reading blogs, playing video games, watching movies or chatting with someone, by using laptops, smartphones or other sophisticated devices anywhere and anytime. Some users are even addicted to certain applications, such as mobile text messaging (Sultan, 2014) and social networking sites (Huang, 2011). Undoubtedly, social media is one of the fastest growing segments on the web (Parra-López, Bulchand-Gidumal, Gutiérrez-Taño & Díaz-Armas, 2010).

Among the most popular social media applications are *web logs* or *blogs* (e.g. Blogger and WordPress), *social networking sites* (e.g. Facebook, Twitter and MySpace), *photos and videos sharing* (e.g. Instagram, Flickr, YouTube, Vimeo), *online encyclopaedia* (e.g. Wikipedia), *online bookmarking* (e.g. Delicious), *virtual social worlds* (e.g. Second Life) and *virtual game worlds* (e.g. World of Craft). These social media platforms allow users to search, create, share, collaborate and organise contents while at the same time provide virtual self-representation and self-disclosure of oneself.

In Malaysia, the usage of ICT and social media in particular has shown a significant growth in the last few years. Internet users in Malaysia alone comprised of 16 million in the first quarter of 2009, while the number of cellular subscriptions in the third quarter of the same year has reached 29.6 million (Malaysian Communications and Multimedia Commissions - MCMC, 2010). In 2012, Malaysia ranked in 59<sup>th</sup> place on the ICT Development Index by the International Telecommunications Union (ITU) (MCMC, 2014). In terms of age categories, MCMC also reported the age group of 20 to 24 years leads other age group in terms of household Internet usage (21.4%) (MCMC, 2014). Socialbakers.com (2013) informed that the highest number of Malaysian Facebook users falls under the group between 18 and 24 which are 4.5 million. A recent report by UNICEF Malaysia (2014) also highlighted that the age groups between 16-18 and 18+ were the higher users of social media. Moreover, Facebook keeps on maintaining its rank as the top social networking site used by 13,085,000 Malaysians, which makes it tiered 17 in the ranking of all Facebook statistics countries (Socialbakers.com, 2013). Children and young people (aged 13-24) make up nearly half of the Facebook users in Malaysia (Socialbakers.com, 2013).

In addition, 80% of affluent Malaysians (i.e. those with a household income above RM5,000) use social networking sites; nine of the top 20 websites in Malaysia are social networking sites, and the top six sites are Yahoo!, Facebook, Google.com.my, YouTube, Google.com, and Blogger (Gibson, 2009). Recent statistics on Malaysian Facebook users revealed that some 13.3 million or 45.5 per cent of the total population in the country are Facebook users; hence this makes Malaysia on the 8<sup>th</sup> spot in Asia and 21<sup>st</sup> place in the world (Borneo Post, 2013). These show that the demand for social media in Malaysia is growing.

## 1.2 PROBLEM STATEMENT

The importance of studies concerning social media and personality is increasing day by day in line with the popularity of social media use, yet research into social media use in relation to personality traits remains rather limited (Ozguven & Mucan, 2013). The existing literature on social media usage and its implications on end-user personality in Malaysia are also limited. Similar limitation exists on the effects of social media on university students' personality. Personal factors, including personality traits which are affecting technology use also need to be acknowledged as important variables (Agarwal, Sambamurthy & Stair, 2000; Moon, Kim & Armstrong, 2014). Personality has also been found to be an important factor influencing a wide variety of human behaviours and choices (Yoo & Gretzel, 2010). Hence it is necessary to examine the implications of social media towards human personality. Social media were claimed to give implications to human beings with regards to personality, yet these variables have not much been emphasised in previous studies (Correa et al., 2010; Yoo & Gretzel, 2010; Ozguven & Mucan, 2013).

A few researches have actually focused on the relationships between or effects of personality traits on the adoption of social media, but not vice versa (Amichai-Hamburger, Wainapel & Fox, 2002; Amichai-Hamburger & Vinitzky, 2010; Correa, Hinsley & de Zuniga, 2010; Yoo & Gretzel, 2010). Furthermore, the majority of research on social media usage mainly focused on social networking sites, such as Facebook, Twitter, and MySpace (Correa, Hinsley & de Zuniga, 2010), whereas social media essentially covers various applications such as blogs, photos and

videos sharing, online encyclopaedia, online bookmarking, virtual social worlds, virtual game worlds and instant messaging service.

Despite various applications of social media adopted by users, pattern shows that research on social media in Malaysia were only emphasised on blogs (i.e. Muhamad Nazri & Suhaimee, 2008; Zanariah, Siti Rohana & Norun Najjah, 2008), social networking sites (i.e. Safurah, Khaizuran & Azmi, 2010; ), academic performance (Al-rahmi, Mohd Shahizan Othman & Musa, 2014) and the use of social media for business (i.e. Shahizan, Norshuhada, Nor Laily, Sobihatun Nur & Mohd Samsu, 2012).

There are also studies which emphasised on civic engagement among Malaysians through Facebook (Warren, Sulaiman & Jaafar, 2014), usage of social media among small and medium entrepreneurs in Malaysia (Rohayah, Faizal, Ghazali & Hadina, 2012), the relationship between public exposures to social media with ethnocentrism (Abdul Rauf, Jusang, Siti Zobidah, Mohd Nizam, Rozman & Siti Faidul Maisarah, 2012) and purpose of social media usage among students (Farah Dina & Melati, 2013). Thus, it is important to highlight the implications of social media on users' personality.

Based on the issues and challenges faced by the country in profiling the usage of social media among university students, and the social media implications in view of the perspective of personality traits, it is timely and significantly important to undertake this research in Malaysia.

### **1.3 RESEARCH OBJECTIVES**

The main objective of this research is to determine the implications of social media on end-users' personality. The specific objectives of this research are as follows:

- i. to identify the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of social media usage;
- ii. to examine the effects of social media usage on the five-factor personality traits.

### **1.4 RESEARCH QUESTIONS**

The research questions were developed to meet the objectives that were set earlier. The main research questions for this study concentrated on issues pertaining to profile of social media users in Malaysia, and the implications of social media on end-user personality.

The research questions are as follows:

- i. Who are the users of social media in Malaysia, what are their profiles, what are their preferences, how and why do they use social media and for what purpose?
- ii. Can usage of social media effects the five-factor personality traits?

## **1.5 SIGNIFICANCE OF THE RESEARCH**

In the rapid emergence of Web 2.0 technology, social media has become a central issue for discussion and investigation. The current trend in social media usage provides evidence that the technology has becoming more important in people's life. Hence, given the issues and challenges faced by the country in profiling the usage of social media and its implications in view of the perspective of the Big Five personality, it is timely and significantly important to undertake this research in Malaysia. The research is significant in twofold. First, the profiles of social media users are important for the social media providers to plan and strategize their social media applications for the needs and preferences of users. Second, the relationships between user personality and social media usage provide useful information on whom, why and how these people adopt the social media in which each personality trait may influence the decision to use the social media.

## **1.6 SCOPE OF THE RESEARCH**

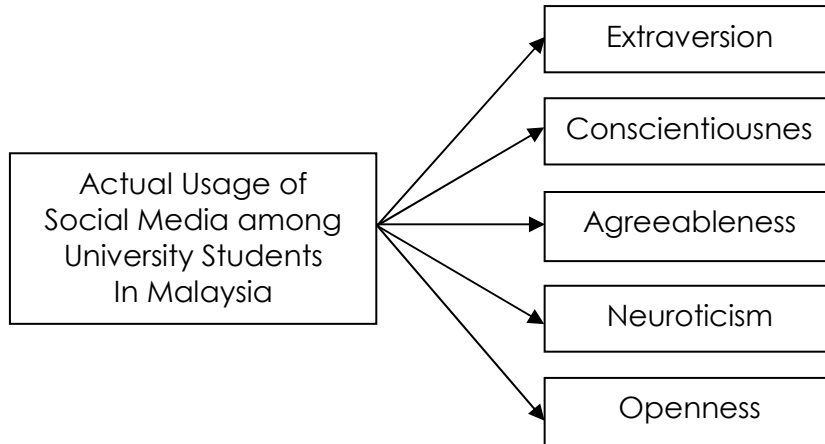
This research aims to study the profile of social media users in the context of Malaysian population. The sample is university students who are active users of social media. This research focuses on the usage of social media, specifically the duration, frequency of use, purpose, and reasons of media usage. It also aims to determine the implications of social media on personality traits. The personality traits used in this research are based on Five-Factor Model (or also known as the Big Five Model) (Goldberg, 1992; McCrae & Costa, 1997).



## 1.7 CONCEPTUAL FRAMEWORK

The conceptual framework of this research is developed based on the Five Factor Model (FFM) and the Technology Acceptance Model (TAM). The FFM is originated by the work of Norman (1963) in the studies of natural language trait terms (McCrae & John, 1991) and later expanded by McCrae and Costa (1991; 1997) and Goldberg (1992). The FFM is regarded as the most comprehensive taxonomy of personality traits (Goldberg, 1993). The FFM comprises the five following broad personality dispositions: Extraversion, Openness to experience, Conscientiousness, Neuroticism, and Agreeableness. The actual usage of social media is derived from the Technology Acceptance Model (TAM) (Davis, 1989).

Figure 1.1 shows the conceptual framework of the research. The social media applications being chosen for this study are Facebook, YouTube, and Instagram which ranked the top 30 sites among Malaysian users and also the highest ranking social media applications in Malaysia (Alexa, 2014). WeChat and WhatsApp were also included in the framework as the growth of these two instant messaging services are increasing. WeChat had more than 270 million monthly users, compared to WhatsApp users of 450 million (Beech, 2014). These figures show a big market for both applications, and it is worth studying.



**Figure 1.1: Conceptual Framework**

## **1.8 RESEARCH HYPOTHESES**

The research hypotheses being proposed are as follows:

- H<sub>1a-e</sub>** Actual usage of social media (Facebook, YouTube, WeChat, WhatsApp, and Instagram) has direct positive effect on Extraversion.
- H<sub>2a-e</sub>** Actual usage of social media (Facebook, YouTube, WeChat, WhatsApp, and Instagram) has direct positive effect on Conscientiousness.
- H<sub>3a-e</sub>** Actual usage of social media (Facebook, YouTube, WeChat, WhatsApp, and Instagram) has direct positive effect on Agreeableness.
- H<sub>4a-e</sub>** Actual usage of social media (Facebook, YouTube, WeChat, WhatsApp, and Instagram) has direct positive effect on Neuroticism.
- H<sub>5a-e</sub>** Actual usage of social media (Facebook, YouTube, WeChat, WhatsApp, and Instagram) has direct positive effect on Openness to Experience.

## **1.9 DEFINITION OF TERMS**

In this research, some main conceptual terms were defined and discussed. These terms included all the important dimensions illustrated in the conceptual framework and other terms which were used throughout the study.

### **(i) Social Media**

In the research, the definition of social media is based on the definition given by Kaplan and Haenlein (2010) that is “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content”.

### **(ii) End-user**

End-user is defined as the ultimate consumer of a product or service, especially the one for whom the product or service has been designed (freedictionary.com, 2013). End-user in the context of this research is university students who actively use the social media application/s.

### **(iii) Personality**

The term personality is based on the Big Five Personality Traits. As the pool of research on ICT use grew, several scholars examined the influence of personality traits on Internet uses by

utilizing the Five-Factor Model (or also known as the Big Five Model) (Goldberg, 1992; McCrae & Costa, 1997). The Big Five personality factors are generally acknowledged as relevant and valid dimensions of personality in various fields of research (De Raad, 2000; Gelissen & de Graaf, 2006; Goldberg, 1992; Sultan, 2014). The five personality factors are Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness.

**(iv) Extraversion**

Extraversion means that of a person who possesses characteristics as approachable, sociable, friendly, lively, optimistic and energetic (Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010).

**(v) Agreeableness**

Agreeableness indicates a person with trustful, honest, tolerant, good-natured, forgiving, soft-hearted, courteous, cooperative, forgiving and flexible (Barrick & Mount, 1991; Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010).

**(vi) Conscientiousness**

High score on conscientiousness indicates a person as being responsible, efficient, organized, productive, thorough, achievement-oriented, self-disciplined and well-informed (Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010).

### **(vii) Neuroticism**

Neuroticism relates to anxious and upset, unable to control anger and low self-esteem (Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010). Neuroticism is also known as the opposite behavior of emotional stability (Gow, Whiteman, Pattie & Deary, 2005) and these two terms were used interchangeably in many previous studies.

### **(viii) Openness to experience**

Openness to experience indicates those who are explorative or imaginative, creative, appreciate artistic values, willing to try new things, can easily adapt to changes, open to different ideas or opinions (Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010).

## **1.10 CHAPTER SUMMARY**

This chapter has laid the foundations of the research undertaken. It introduces the research context and provides a brief outline of the background of the research. Since the research in social media and end-user personality in Malaysia is still in its infancy, thus this research is conducted to examine the trend and implications to the user's personality. The objectives, research questions, hypotheses and conceptual framework were outlined in this chapter. The significance of this research is explained followed by the scope and limitations of the present research. Key definitions of terms related to the study are also presented.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The review of literature is divided into three major parts, namely the definitions and characteristics of social media, trends in social media usage, and relationships between personality traits and social media.

#### **2.2 SOCIAL MEDIA CONCEPT**

What is social media after all? Safko (2012) defined *social* as “the instinctual needs we human have to connect with other human”, while *media* as what “we use with which we make connections with other human”. A more specific definition of social media was given by Kaplan and Haenlein (2010) who had defined social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (p.61). Kaplan and Haenlein then categorised social media into six major types based on a set of theories, which are media research (media richness theory and social presence), and social processes (self-presentation and self-disclosure), namely collaborative projects, blogs, content communities, social networking sites, virtual game worlds and virtual social worlds. They even distinguished social media from Web 2.0 and user-generated content.

Eyrich, Padman and Sweetser (2008) view social media to consist of tools such as blogs, intranets, podcasts, video sharing, photo sharing, social networks, wikis, gaming, virtual worlds, micro-blogging/presence applications, text messaging, video conferencing, PDAs, instant message chat, social event/calendar systems, social bookmarking, news aggregation/RSS and e-mail. These applications were also supported by Taylor and Kent (2010) who opined that social media tools include interactive social networking sites, as well as blogs, podcasts, message boards, online videos and picture albums, and mobile telephone alerts.

Moreover, social media are seen as user-friendly, inexpensive, scalable Internet-based and mobile-based technologies that allow for the sharing of user-generated materials (Fischer & Reuber, 2010). In particular, Kim, Jeong and Lee (2010) defined social web sites as “those web sites that make it possible for people to form online communities, and share user-created contents (UCC)” (p.216). Social media is always recognized as and used interchangeably with Web 2.0 and user-generated content (UGC) (Owyang & Toll, 2007); however Kaplan and Haenlein (2010) argued that it differs from those two concepts.

### **2.3 SOCIAL MEDIA USAGE**

In order to investigate the implications of social media on the personality traits, it is important to understand the trends in social media usage. Among the major purposes of usage of social media covers the socialisation needs, finding old friends, education, information seeking, promote products and services, job seeking, sharing information and spreading news on particular events, and playing games. There are quite a number of researches concentrated on the usage of social

media in areas such as *tourism* (Parra-López, Bulchand-Gidumal, Gutiérrez-Taño & Díaz-Armas, 2010; Xiang & Gretzel, 2009; Noraihan Mohamad, 2014), *electronic government* (Bertot, Jaeger & Grimes, 2010; Margo, 2012; Talip & Narayan, 2012; ), *business* (Zeiller & Schauer, 2011), *public health* (Carleen, 2009; Thackeray, Neiger, Smith & Van Wagenen, 2012) and *public relations* (Curtis, Edwards, Fraser, Gudelsky, Holmquist, Thornton, et al., 2010; Diga & Kelleher, 2009; Khaizuran, 2010; Taylor & Kent, 2010).

Many prior researches focused on the usage of social media among targeted populations. College students for instance, reported using social networking websites to make new friends, locate old friends and to keep in touch with current friends (Raacke & Bonds-Raacke, 2008). Kelleher and Sweetser (2012) conducted long interviews with university communicators at two distant universities with different social system. Among the attributes of the social media that have driven the participants to adopt it are by relative advantage, compatibility, and trialability. An emphasis on publics, information sharing, cost, and convenience were among the inductive themes that were found from the interviews.

A study on public relations (PR) practitioners (Diga & Kelleher, 2009) found that practitioners who frequently used social network sites were more likely to report feeling empowered to be promoted into their current positions. The information they gain from using social network sites may be used as a strategic tool, which can empower them to advance within organizations. The study also concluded that engaging in relationships through social network sites can build a practitioner's social capital, which may then boost status or prestige. Similarly, Curtis et al. (2010) studied the usage of social media by PR practitioners in the non-profit organisations by



employing the *Unified Theory of Acceptance and Use of Technology* (UTAUT). Their survey measured social media usage with relations to performance expectancy, effort expectancy, social influence, facilitating conditions, voluntariness of use, self-efficacy and anxiety. They found that social media tools are becoming beneficial methods of communication for PR practitioners and organisations with defined PR departments are more likely to adopt social media technologies and use them to achieve their organisational goals. However, PR practitioners are more likely to use social media tools if they find them credible. Another study on PR suggests that social media power far outweigh evidence of social media effectiveness as a communication tool (Taylor & Kent, 2010). They argued that very little evidence exists to date to support the claims about the power of social media made by the profession of PR.

Recent Pew Internet Project on teens and young adults usage of social media in the United States of America (Lenhart, Purcell, Smith & Zickuhr, 2010) found that since 2006 onwards, the popularity of blogs among teens and young adults has dropped, but the usage among older adults shows an increasing pattern. However, the use of social networking sites among teens and adults has increased, and Facebook was reported as the most commonly-used online social network as compared to MySpace and LinkedIn, while Twitter was the less used application. Similarly, the use of virtual worlds among teens is more common than young adults. Interestingly, among teens, the average person owned 3.5 gadgets out of five being queried, namely cellular phones, MP3 players, computers, game consoles and portable gaming devices. In contrast, the average gadgets ownership among adults is under 3. The report also revealed that teens are avid and clever creators of digital contents while adults have shown some increases in content creating activities.

A study on usage of social networking sites in Pakistan also shows an increasing dependency on the media among university students (Shaheen, 2008). Out of 295 respondents, 71% logged on to the sites daily and 85% trusted the information posted on their preferred web sites. In addition, 93% agree that during the state of emergency in Pakistan, these web sites created awareness among the Pakistani youth about their political rights. Shaheen also pointed out that the use of social networking sites may be an alternate medium to promote the freedom of speech in Pakistan and greater awareness about people's political rights among university students.

Although there has been a significant growth in the empirical studies related to social media, it is found that there is a lack of focus in the context of Malaysian population. Khaizuran (2010) for instance, reported an initial study on usage of social media among PR practitioners in Malaysia. Only 33% of the respondents utilised blogs for PR activities while half of them used Facebook for the same purpose. A study on social media amongst youths in Malaysia (Safurah, Khaizuran & Azmi, 2010) revealed that more than half of the respondents used the World Wide Web everyday while 88% used Facebook. The reasons for using social networks varies, but the highest given reasons are to socialise with friends and seek information. The least used social media is micro blogging. This finding was similar to that of Lenhart et al. (2010) which showed that blogging has not attracted much attention amongst youngsters. The study also revealed that social media have influenced the respondents in the areas of communication, entertainment, language and learning. The usage of social media was also associated with human personality. Correa et al. (2010) found that people with greater levels of neuroticism and negative affectivity are more likely to engage in the social media activities. They also pointed out that anxious and nervous people use the social media services to seek support and company.

Social media has gained huge attention and trust by various parties, including the governments, businesses, civil societies and individuals. In addition, the benefits and threats of social media has also been emphasised by quite a number of publications (Bertot et al., 2010; Kim et al., 2010). Bertot et al. (2010) suggested four major potential strengths of social media towards anti-corruption in the government, namely collaboration, participation, empowerment and time. They argued that social media is beneficial since it provides collaboration and participation by the social interaction; whereas it can also be used to empower its users as it gives them a platform to speak and express their opinions. Social media also allow users to immediately publish information or news in almost real time manner. In contrast, social media also allow for infringement of copyrighted materials. Users can freely post copyrighted materials without authorization, or pornographic or other illegal contents (Kim et al., 2010). This has forced site operators to hire staff to investigate and remove the material, or else being sued by copyright holders or even worse the site being banned by the government.

Recent case in Malaysia showed a Twitter user, Effi Nazrel Saharudin, was fined RM10,000 for insulting the Yang di-Pertuan Agong through the micro blogging service (Tariq, 2014). Previously, a university student, Wee Meng Chee (nickname 'Namewee') composed and sung a highly controversial song called 'Negarakuku' (adopted from Malaysia national anthem) and posted it on the YouTube. This song portrays his perspective of anti-government, disrespectful towards Islam and accused racism, which then forced him to remove the video amid pressure on July 2007. In 2010, again he made another music clip and uploaded on the YouTube criticizing a school principal in Kulai Jaya. The clip contained obscene language condemning the school principal and the Education Ministry, and he was asked to give statement in Kuala Lumpur

police station and also Cyberjaya Investigation Unit for two times later (Benjamin, Camoens & Kumar, 2010). These true cases highlight the threats by social media which may give harm to the whole nation.

Undoubtedly, social media exposed many risks and threats, hence give implications to the users. Children are the most highly risked group of users on the Net. Children tend to publish their personal information such as telephone number or home address on their profile, thus exposing themselves to strangers. Among the risks factors in social media include pornography; bullying, sending/receiving sexual messages and going to meetings with contacts first met online (EU Kids Online, 2010). Kim et al. (2010) pointed out that social media sites have also led users to 'lose sense of what is appropriate and end up losing employment or college entrance opportunities'.

#### **2.4 RELATIONSHIPS BETWEEN SOCIAL MEDIA AND PERSONALITY TRAITS**

As the pool of research on ICT use grew, several scholars examined the influence of personality traits on Internet uses by utilizing the Five-Factor Model (or also known as the Big Five Model) (McCrae & Costa, 1997). The Big Five personality factors are generally acknowledged as relevant and valid dimensions of personality in various fields of research (de Raad, 2000; Gelissen & de Graaf, 2006; Goldberg, 1992). The five personality factors are extraversion, agreeableness, conscientiousness, neuroticism and openness. Extraversion means that of a person who possesses characteristics as approachable, sociable, friendly, lively, optimistic and energetic, whereas agreeableness indicates a person with trustful, honest, tolerant, good-natured,

forgiving and soft-hearted. High score on conscientiousness indicates a person as being responsible, efficient, organized, productive, thorough, achievement-oriented, self-disciplined and well-informed. Neuroticism relates to anxious and upset, unable to control anger and low self-esteem. Openness to experience indicates those who are explorative or imaginative, creative, appreciate artistic values, willing to try new things, can easily adapt to changes, open to different ideas or opinions.

Early studies of individuals' online activities found those high in extraversion and low in neuroticism were not as heavy Internet users as their more introverted, more neurotic counterparts (Amichai-Hamburger, Wainapel & Fox, 2002). A study by Yoo and Gretzel (2010) suggest that personality is an important determinant of motivations and barriers to social media creation, as well as of specific creation behaviours. The study focused on the use and creation of travel consumer-generated media (CGM). The study also confirmed that the attitudes and behaviours of travel-related CGM creators are influenced by Big Five personality traits. Correa et al. (2010) studied the relationships between three dimensions of Big Five personality traits namely extraversion, emotional stability and openness to experience and the social media use, particularly on social networking sites and instant messages. They found that extraversion and openness to experiences were positively related to social media use, while emotional stability was negatively related to social media use. What is more interesting is that the findings differed by gender and age. While extraverted men and women were both likely to be more frequent users of social media tools, only the men with greater degrees of emotional instability were more frequent users.

Teh, Yong, Chong and Yew (2011) conducted a study in Malaysian universities to see whether the Big Five personality factors affect knowledge sharing behavior. They found that extravert and neurotic people have the motive to share online entertainment knowledge with others. In contrast, individuals with a strong openness to experience personality trait are less likely to share online entertainment knowledge.

According to Wang, Jackson, Zhang and Su (2012), personality factors play an important role in how Social Networking Sites (SNS) are used. Specifically, extraverts are more likely to use the communicative function of SNS including status update, comment, and adding more friends. Neurotic are more likely to use the feature of status update as a way of self-expression. Agreeable individuals tend to make more comments on others' profiles. Individuals with high self-esteem are more likely to comment on others' profiles. Users scoring high on openness and sensation seeking are more likely to play online games on SNS. Narcissistic users are more likely to upload their attractive photos on SNS and tend to use update status more frequently for self-presentation. Gender also played an important role in predicting types of SNS use. Males reported more SNS friends and were more likely to play online games than were females, who were more likely to upload self-photos and update their status.

A study on how attachment style, personality traits based on the Five Factor Model, and self-esteem were related to perceptions of interpersonal competency and Facebook use was conducted by Jenkins-Guarnieri, Wright and Hudiburgh (2012). Their models suggested that extraversion was positively related to Facebook use. Experiments by Bai, Zhu and Cheng (2012) showed that extraversion is positively related to one's status republishing proportion and

neuroticism is positively related to the proportion of one's angry blogs (blogs making people angry). Ryan and Xenos (2009) found that Facebook users tend to be more extraverted and narcissistic, but less conscientious and socially lonely, than nonusers. Furthermore, frequency of Facebook use and preferences for specific features were also shown to vary as a result of certain characteristics, such as neuroticism, loneliness, shyness and narcissism.

Researches on social networking sites and narcissism which were conducted by Bergman, Fearington, Davenport, and Bergman (2011), Buffardi and Campbell (2008) and the research by McKinney, Kelly and Duran (2012) indicated that attitude toward being open about sharing information about oneself was significantly related to frequency of using Facebook and Twitter to provide self-focused updates. Higher levels of narcissism were associated with a larger number of Facebook friends and with the number of self-focused “tweets” an individual sends.

Meanwhile, people who are high in openness to new experience and high in neuroticism are likely to be bloggers (Guadagno, Okdie & Eno, 2008). Additionally, gender moderated the neuroticism relationship in which women who are high in neuroticism are more likely to be bloggers as compared to those low in neuroticism whereas there was no difference for men. These results indicate that personality factors impact the likelihood of being a blogger including gender and it gave implications in understanding who blogs.

A research by Ferraro, Caci, Conti, Di Blasi and Cardaci (2008) on Italian bloggers showed no specific personality patterns leading people to become bloggers. However, Italian bloggers describe themselves as individuals considerably open to experience, very affiliative or friendly

and capable of managing their interpersonal problems. Despite their intensive blogging, they also exhibited low levels of Internet addiction.

Social media can also be used to facilitate the learning process. A study by Rowe (2012) on physiotherapy students for instance, found that online social networks can be used to facilitate reflective reasoning and increase students' engagement. It can be utilized to expose students' practice knowledge and to structure students' critical reflection.

A study on the relationships between personality traits and academic performance by Cazan and Schiopca (2014) found that personality traits such as conscientiousness and openness to experience are not significant predictors to academic achievement. However, they found that study year is an efficient predictor, in that, self-directed learners from the third year have higher academic performances than first year students.

A study by Ozguven and Mucan (2013) found that conscientious people use social media more frequently and share more in the social media. People using social media are generally open to new experiences and have higher levels of life satisfaction. The study also revealed that as levels of education and income increase, social media use also increases. Ozguven and Mucan (2013) also found that control variable of life satisfaction was a significant factor in determining the social media use. Quintelier and Theocharis (2013) found that openness to experience and extraversion have an effect on online political engagement particularly via Facebook. However, for conscientiousness, agreeableness, and emotional stability (neuroticism), only small effects were observed.



## **2.5 CHAPTER SUMMARY**

Based on the previous studies done on the social media usage, and the relationship between social media and personality traits, it is timely that an in-depth investigation be undertaken to understand the implications of social media on end-user personality among the Malaysian university students. Many previous research focused on the effects of personality traits on the social media usage, but there is lack of research done vice versa. We have to admit that Internet technology, particularly the Web 2.0 and social media applications do effect the human being's personality in many ways, yet not much investigation were conducted. In addition, research in Malaysian setting particularly on the relationships between the five-factor personality traits and social media usage is imperative since the usage of social media among society including the students are increasing and becoming a trend.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter explains the methodological steps in the research, including rationale of study, research design, population and sampling technique, data collection methods and instruments, and data analysis. The procedures of the pilot tests are presented in order to undertake a manageable survey and the research instruments verified and validated before being employed in the actual field study. The analytical approach consists of the reliability and validity of the instruments. The primary objectives of the research are to identify the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of media usage; to examine the mediating effects of social media usage on the relationships between personality traits and academic performance; and to observe the relationships between social media usage and personality traits which are controlled by experience in using social media.

#### **3.2 RESEARCH DESIGN**

This research began with a literature review and a questionnaire survey in various classrooms in one of the public university in Malaysia. The study employed a cross-sectional survey using self-administered questionnaire which was distributed among university students who use social media via printed and wired. By using a snowball technique, few students were identified

initially in several lecture rooms, and have been asked to fill in the questionnaire and distribute the questionnaire to their friends who were also using wired devices and/or mobile phones to access the social media. Online questionnaires were also distributed to the social networking users, i.e. Facebook, by employing the snowball technique.

### **3.3 POPULATION AND SAMPLING TECHNIQUE**

The population of this study is students in one of the public universities in Malaysia. The selections of subject being studied have been carried out based on active use of social media in everyday life. Systematic random sampling technique based on the academic programmes is used as a basis for selection of the samples.

### **3.4 DATA COLLECTION METHOD**

The data was collected in June 2011 for the duration of one month with the total respondents of 470. This amount obtained as a result of screening of each questionnaire fully answered and no dubious questionnaires.

### **3.5 INSTRUMENT**

Questions are adapted from Pew Internet Report (Lenhart et al., 2010), Curtis et al. (2010), Yoo and Gretzel (2010) and some other social-media-related sources. In addition, to measure the Big Five personality traits or the Five-Factor Model, items for each factor were adopted from the International Personality Item Pool (IPIP) (Goldberg, 1999; IPIP, n.d.). The questionnaire

consists of three parts. Part A pertains to the demographic profiles of the respondents, while Part B focuses on the profiles of social media usage. Respondents were asked on ownership of ICT devices, types of social media being used, their experiences with social media, how frequent they usually used the media, their purpose of using social media, and other related questions. Part C consists of 50 items from the Big Five personality traits, namely Extraversion, Openness, Agreeableness, Conscientiousness and Neuroticism.

### **3.6 PILOT STUDY**

The instrument was tested on a pilot group of 50 students. They were asked to fill out the online survey. After analyzing their responses with an SPSS statistics program, the Cronbach's alpha for the personality traits was found to be 0.77, which suggested strong internal consistency (Cohen, 1988).

### **3.7 DATA ANALYSIS**

Questionnaires received for this study are numbered before the insertion of data into IBM SPSS statistical software. Variable coding sheet is prepared in advance and tested prior to the coding process of all the data. This process is conducted to ensure the smooth process of data coding. Descriptive statistics was used to describe the participants' demographic profile (gender, race, age, marital status, monthly income, monthly Internet expenses, and academic college). In addition, all exogenous variables (usage of social media), and endogenous variables (personality traits) were analyzed using descriptive statistics. For variables which used nominal and ordinal

level of measurement, the data will be described by using frequency (or number) and percentage. As for the variables using interval level of measurement, the data will be described using mean and standard deviation. Analysis of data to produce descriptive statistics is aided by the IBM SPSS Statistics software.

Data analysis based on statistical inference will involve the formulation and testing of the overall measurement model, structural modeling, and hypotheses testing to answer the research objectives. This statistical analysis use multivariate statistical analysis of the second generation of Structural Equation Modeling (Structural Equation Modeling) through the use of IBM software AMOS. Azam, Quaddus and Lubna (2013) stated that the structural equation modeling is proper in analyzing the data which is related to the proposed conceptual framework. Many researchers nowadays are adopting the structural equation modeling because it allows the analysis of complex networks of constructs. Implementation of this analysis only involves modeling the personality traits and usage of social media variables.

Covariance structure analysis, as used in AMOS is the best approach to causal modeling, where the data gathered from the survey were analyzed using structural equation modeling (Barclay, Higgins, & Thompson, 1995). The measurement model is assessed by covariance-based structural equation modeling, as the conceptual framework of the grounded in past established theories. Understanding the superiority of covariance and component-based structural equation modeling and considering the mathematical and practical grounding of the analytical instruments, this study estimates measurement model and structural model estimation by using AMOS 19 graphic software.

Overall measurement model will be developed to cover all the constructs described. In this phase, the evaluations of the constructs were made based on convergent validity, discriminant validity, and nomological validity each construct and also reliability for each construct. Matching accuracy of the overall measurement model is also based on the matching accuracy of conventional indicators: Chi-square ( $\chi^2$ ), degree of freedom (df), p-value, Chi-square/degree of freedom ( $\chi^2 / df$ ), Absolute Fit Index (AFI) namely RMSEA and SRMR, incremental Fit Index (IFI) namely NFI and CFI, and Parsimony Fit Index (PFI) which is PNFI. After all evaluations of validity, reliability and accuracy of the model matches the overall measurement is done, the structural model will be developed based on the conceptual model.

Hypotheses testing were carried out on all direct relationships to determine the significance influence of exogenous variables (independent variables) on the endogenous variable (dependent variable). Test results will be shown based on the correlation coefficient (based on standard error and standardized regression -  $\beta$ ), T-value (based on the CR) and significant at the 95% confidence level ( $p < 0.05$ ).

The findings of the study will be explained by using the structural model which has achieved matching accuracy to describe the changes that occur to (i.e.  $R^2$ ) Extraversion, Neuroticism, Agreeableness, Conscientiousness and Openness to experience based on variables used to explain it.

### **3.8 OPERATIONALIZATION OF THE CONSTRUCTS UNDER STUDY**

Based on to the objective and the theoretical model, this study is designed to portray the relationships between actual usage of social media and the Big Five personality traits namely Extraversion, Conscientiousness, Openness to Experience, Neuroticism and Agreeableness. Actual usage of the social media is measured by the frequency of social media applications usage daily. Social media applications refer to Facebook, Twitter, Blogs, YouTube, Instagram, WhatsApp, WeChat, Wiki and Online games. All of the constructs for Big Five personality traits are measured through multiple latent variables, in which each construct is measured by ten items (adopted from the International Personality Item Pool (Goldberg, 1999; IPIP, n.d.)).

### **3.9 CHAPTER SUMMARY**

This chapter highlighted the methodology of the research being conducted. The methodological steps in the research were discussed, including rationale of the study, research design, population and sampling technique, data collection methods, instruments, pilot study, data analysis and also operationalization of the constructs under study.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 INTRODUCTION**

This chapter discusses the data analysis and results obtained from the present research. As mentioned in the previous chapter, the present study employed a cross-sectional survey using self-administered questionnaire which was distributed among university students who use social media via wired and mobile devices. This chapter is divided into three sections: Section A discusses the demographic profiles of the respondents while Section B highlights the acceptance of social media, including types of devices owned by the respondents, types of social media used in terms of frequency and average years of use, purpose of use, and who introduced to social media. Section C discusses the relationships between frequency of use of social media and personality traits.

#### **4.2 RESULTS OF THE STUDY**

This cross-sectional study was conducted among students at one public university in Malaysia. The results of the study were analysed using SPSS and AMOS version 19 software. A total of 1,000 respondents were selected using a random sampling where self-report questionnaires were distributed manually and online. Responses which do not fulfill the collection criteria were excluded. Altogether, a total of 470 questionnaires were returned, giving a response rate of 47%. Each variable was screened for missing data, normality, and multivariate outliers for each of the



five personality traits. To handle actual missing data, each individual's composite mean score for each factor was calculated by using valid data and replacing the composite mean for the missing data. Multivariate outliers were identified using Mahalanobis Distance with  $p < .05$ . After deleting 88 cases, the final result was 382 completed surveys.

#### **4.2.1 SECTION ONE: PROFILES OF THE RESPONDENTS**

This section highlights the demographic profiles of the respondents, monthly household income, and average monthly expenses on telephone and Internet.

##### **4.2.1.1 Demographic Profiles**

Table 4.1 shows the demographic profile of the respondents. The total number of respondents involved is 382, in which 106 are male, while 276 are female students. The majority of the students are from the Malay ethnic (282), 58 are Chinese, 28 are Indians, 10 are from Sabah/Sarawak ethnics while the rest are others. Since they are undergraduate students, their age ranges from 19 to 27 years old (mean age = 21.69). The majority of the respondents are single (372 students), 8 are married, and 2 claimed as others.

**Table 4.1: Demographic Profiles of the Respondents (n=382)**

<b>Demographic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	106	27.7
Female	276	72.3
<b>Race</b>		
Malay	282	73.8
Chinese	58	15.2
Indian	28	7.3
Sabah/Sarawak Ethnic	10	2.6
Others	4	1.0
<b>Age</b>		
19 years old	7	1.8
20 years old	48	12.6
21 years old	136	35.6
22 years old	89	23.3
23 years old	82	21.5
24 years old	12	3.1
25 years old	6	1.6
26 years old	1	0.3
27 years old	1	0.3
		Mean age = 21.69
<b>Marital Status</b>		
Single	372	97.4
Married	8	2.1
Others	2	0.5

#### **4.2.1.2 Monthly Household Income**

The respondents were also asked about their household income for a month. The income ranges between less than RM1000 up to more than RM5001. Out of 382 respondents involved, 114 respondents (29.8%) stated that their household income is less than RM1000 per month, while 152 respondents (39.8%) were between RM1001 and RM3000. Meanwhile, 84 respondents (22%) were in between RM3001 and RM5000, while 32 respondents (8.4%) have monthly household income more than RM5001. These findings are shown in Table 4.2.

**Table 4.2: Monthly Household Income (n=382)**

<b>Income</b>	<b>Frequency</b>	<b>Percentage</b>
<RM1000	114	29.8
RM1001-3000	152	39.8
RM3001-5000	84	22.0
>RM5001	32	8.4

#### **4.2.1.3 Average Monthly Expenses on Telephone and Internet**

To understand the pattern of spending on telephone and Internet among students, the respondents were also asked about their average monthly expenses, as shown in Table 4.3. Majority of the respondents (90.1%) spent below RM150 on telephone and Internet. The minimum amount is RM15 while there is also one respondent who spent on average RM700 per month.

**Table 4.3: Average Monthly Expenses on Telephone and Internet (n=382)**

<b>Expense (in RM)</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Expense (in RM)</b>	<b>Frequency</b>	<b>Percentage</b>
15.00	7	1.8	90.00	5	1.3
20.00	29	7.6	100.00	39	10.2
30.00	69	18.1	110.00	14	3.7
35.00	11	2.9	130.00	7	1.8
40.00	6	1.6	145.00	5	1.3
45.00	5	1.3	150.00	10	2.6
50.00	68	17.8	170.00	6	1.6
60.00	20	5.2	200.00	31	8.1
68.00	6	1.6	700.00	1	.3
70.00	11	2.9	No answer	26	6.8
80.00	6	1.6			

## 4.2.2 SECTION TWO: SOCIAL MEDIA USAGE AND ACCEPTANCE

This section discusses the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of social media usage.

### 4.2.2.1 Devices Owned by the Respondents

There are multiple devices owned and used by the respondents to access social media. The types of devices are listed in Table 4.4. More than 95% owned notebook computer, while almost 79% owned smartphones. Some of them also used mobile phones for call and SMS (64.9%) and 33.8% subscribed to Internet access or broadband. Other devices include tablet computer (17.5%) and web camera (15.2%). The least owned devices are desktop computers (12.3%).

**Table 4.4: Devices Owned by the Respondents (n=382)**

<b>Devices</b>	<b>Frequency</b>	<b>Percentage</b>
Notebook computer	367	96.1
Desktop computer	52	13.6
Tablet computer	67	17.5
Mobile phone	248	64.9
Smartphone	300	78.5
Internet Access (Broadband)	129	33.8
Web camera	58	15.2

#### 4.2.2.2 Purpose of Using Social Media

There are various purposes of using social media among the students. Table 4.5 indicates that among the highest usage of social media are for searching for information (96.3%), communicating with friends/families (93.7%), entertainment (92.4%), and completing the assignment task (88.7%). Only 14.4% of the respondents use social media for business purposes or extra income.

**Table 4.5: Purpose of Using Social Media (n=382)**

<b>Purpose</b>	<b>Frequency</b>	<b>Percentage</b>
Search for news and information	368	96.3
Communicate with friends/families	358	93.7
For entertainment	353	92.4
To complete the assignment/task	339	88.7
To know what other peoples are doing	218	57.1
To improve computer skills	178	41.6
To improve soft skills	159	43.8
To get new friends	144	37.7
To improve self-confidence	133	34.8
For business purposes/extra income	55	14.4

#### 4.2.2.3 Who Introduced to Social Media?

With regards to the awareness and knowledge about social media, 92.4% stated that they have been introduced to social media by friends, while more than half (50.8%) been introduced by their families (Table 4.6). It is also important to highlight that 36.9% stated that their teachers or lecturers have introduced them to social media. This indicates that teachers and lecturers also play an important role in the social media awareness and usage.

**Table 4.6: Who Introduced to Social Media?**

	<b>Yes</b>
Friend	353 (92.4%)
Family	194 (50.8%)
Relatives	130 (34.0%)
Teacher / Lecturer	141 (36.9%)

#### 4.2.2.4 Types and Frequency of Social Media Used

Table 4.7 indicates the types of social media used by the respondents and the frequency of usage daily. Unsurprisingly, all of the respondents use Facebook (100%). Furthermore, they also reported using applications such as YouTube (81.9%), WeChat (62.6%), WhatsApp (50.3%) and Instagram (46.6%). The least used social media application is online games, Twitter, wiki, and blogs.

**Table 4.7: Usage of Social Media Applications (%)**

<b>Social Media</b>	<b>Yes</b>	<b>No</b>
Facebook	100	0
YouTube	81.9	18.1
WeChat	62.6	37.4
WhatsApp	50.3	49.7
Instagram	46.6	53.4
Blogs	26.6	73.4
Wiki	22.8	77.2
Twitter	18.6	81.4
Online Games	14.7	85.3

### 4.2.3 SECTION THREE: MEAN AND STANDARD DEVIATION OF PERSONALITY TRAITS

This section highlights the results of the descriptive analysis on the Big Five personality traits, namely Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience.

#### 4.2.3.1 Extraversion

Table 4.8 shows the results of descriptive analysis on Extraversion. The highest mean is the statement pertaining to “I like to attend social gatherings (e.g. kenduri, birthday party, reunion)” with  $M=3.90$ ,  $SD=.867$ ), while the lowest mean pertains to “I don’t talk a lot” ( $M=2.90$ ,  $SD=1.18$ ). This concludes that the majority of the respondents fall under the category of extrovert.

**Table 4.8: Extraversion**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
I like to attend social gatherings (e.g. <i>kenduri</i> , birthday party, reunion).	3.9043	.86718
I feel comfortable around people.	3.7298	.84979
I start conversation.	3.4872	.82785
I talk to a lot of different people at social gatherings.	3.3511	.92475
I keep in the background.	3.2106	.84660
I am quiet around strangers.	3.1319	.93021

I don't mind being the centre of attention.	3.0404	.96443
I have little to say.	3.0340	.98762
I don't like to draw attention to myself.	2.9957	.95973
I don't talk a lot.	2.9085	1.18183

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#### 4.2.3.2 Agreeableness

With regards to the Agreeableness as shown in Table 4.9, the highest mean is related to sympathizing with others' feelings (M=4.10, SD=.65), while the statement "I am not interested in other people's problems" has the lowest mean (M=2.75, SD=1.00). This shows that the respondents possessed a high level of Agreeableness.

**Table 4.9: Agreeableness**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
I sympathize with others' feelings.	4.1021	.65155
I have soft heart.	3.8851	.77789
I feel others' emotions.	3.7128	.73913
I am interested in people.	3.5915	.80453
I make people feel at ease.	3.5319	.71984
I take time out for others.	3.4447	.79183
I insult people.	3.2000	1.24862
I feel little concerned for others.	3.1426	1.02988
I am not really interested in others.	2.8319	.92780
I am not interested in other people's problems.	2.7532	1.00677

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### 4.2.3.3 Conscientiousness

For Conscientiousness (as presented in Table 4.10), the highest mean pertains to the statement “I pay attention to details” with  $M=3.78$ ,  $SD=.73$ , while the lowest mean are two items on “I often forget to put things back in their proper place” ( $M=2.85$ ,  $SD=.98$ ). It can be concluded that majority of the respondents have a moderate level of conscientious.

**Table 4.10: Conscientiousness**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
I pay attention to details.	3.7809	.73073
I am always prepared.	3.6511	.78739
I am exacting in my work.	3.6383	.71013
I follow schedule.	3.4872	.86808
I shirk my duties.	3.2915	1.00433
I like order.	3.2745	.95036
I get chores done right way.	3.2106	.75048
I leave my belongings around.	3.1851	1.11483
I make a mess of things.	2.9723	1.04345
I often forget to put things back in their proper place.	2.8553	.98405

#### 4.2.3.4 Neuroticism

With regards to Neuroticism, the highest mean pertains to the statement “I often feel sad” statement (M=3.30, SD=.95) while the lowest is “I always worry about things” (M=2.50, SD=.87). Taken together, this shows that the respondents possessed a moderate level of neurotic, as presented in Table 4.11.

**Table 4.11: Neuroticism**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
I often feel sad.	3.3085	.95782
I am easily disturbed.	3.1021	.98507
I get angry easily.	3.0894	1.05322
I have frequent mood swings.	3.0255	.92316
I get stressed out easily.	2.9872	.95297
I seldom feel sad.	2.9596	1.02238
I get upset easily.	2.9596	1.04507
I am relaxed most of the time.	2.8426	1.06540
I change my mood a lot.	2.8319	.93467
I always worry about things.	2.5021	.87551

#### 4.2.3.5 Openness to experience

The descriptive analysis on Openness as presented in Table 4.12 shows the highest mean on “I have excellent ideas” statement (M=3.57, SD=.763). The lowest mean is “I use difficult words” (M=2.54, SD=.844). These conclude that the students are open to new experience.

**Table 4.12: Openness to experience**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
I have excellent ideas.	3.5617	.76394
I am quick in understanding things.	3.5404	.77092
I spend time reflecting on things.	3.4979	.80178
I am full of ideas.	3.4085	.76930
I have vivid imagination.	3.3043	.79911
I have a rich vocabulary.	3.0426	.86775
I have difficulty understanding abstract ideas.	2.8404	.96311
I am not interested in abstract ideas.	2.8298	.96017
I do not have good imagination.	2.7340	1.04663
I use difficult words.	2.5468	.84449

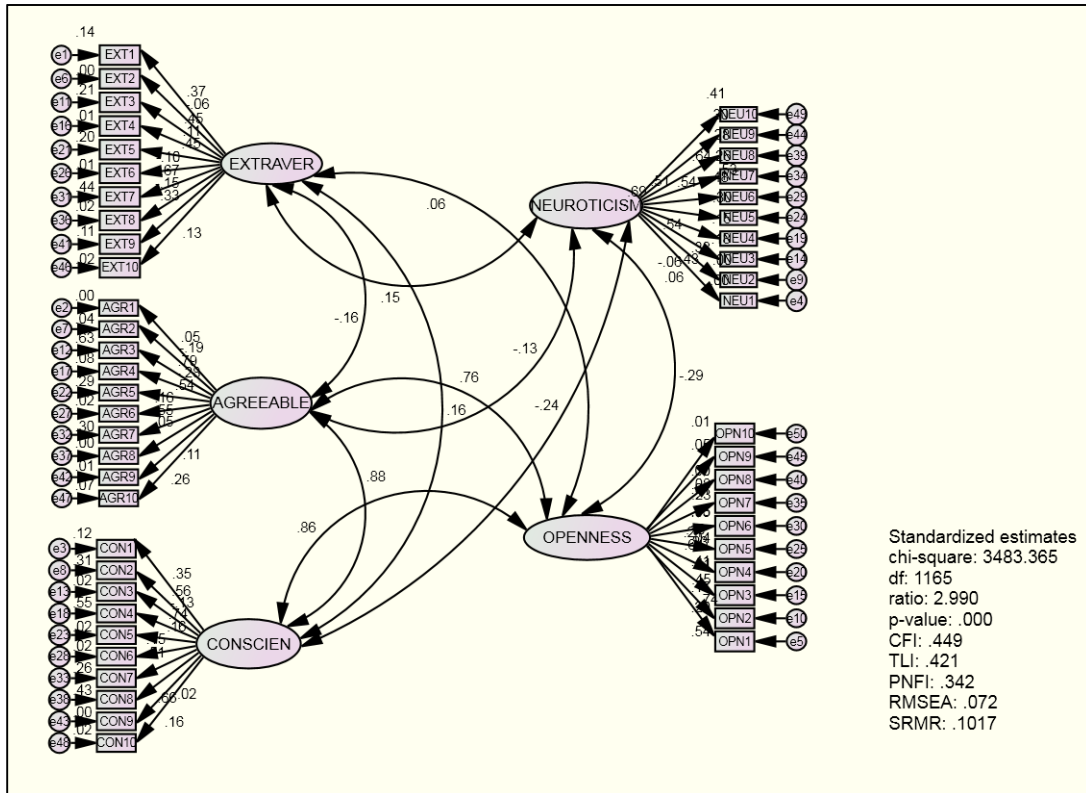
## **4.2.4 SECTION FOUR: CONFIRMATORY FACTOR ANALYSIS (CFA)**

### **4.2.4.1 Measurement Model**

The measurement model was first assessed by a confirmatory factor analysis using AMOS version 19. Different model fit indices are used in structural equation modeling as there is no consensus on the performance of adequacy of model fit by a certain fit index. In the baseline comparisons, most commonly used fit indices: comparative fit index (CFI) (Byrne, 2001; Hair, Black, Babin & Anderson, 2010; Kline, 2005; Schumacker & Lomax, 2010) and Parsimony Normed Fit Indices (PNFI) (Garson, 2009) are widely used indices in SEM to assess the relative improvement in fit to the model. Incremental fit indices (IFI) and Parsimony Fit Indices (PFI) were used with a RMSEA index (Byrne, 2001; Kline, 2005; Schumacker & Lomax, 2010) and Standardized Root Mean Square Residual (SRMR) (Hu & Bentler, 1999) to assess the proposed model's overall goodness of fit. The model, therefore, was measured for estimating the psychometric properties of the measurement model in terms of reliability, convergent validity, discriminant validity and nomological validity (Fornell & Larker, 1981).

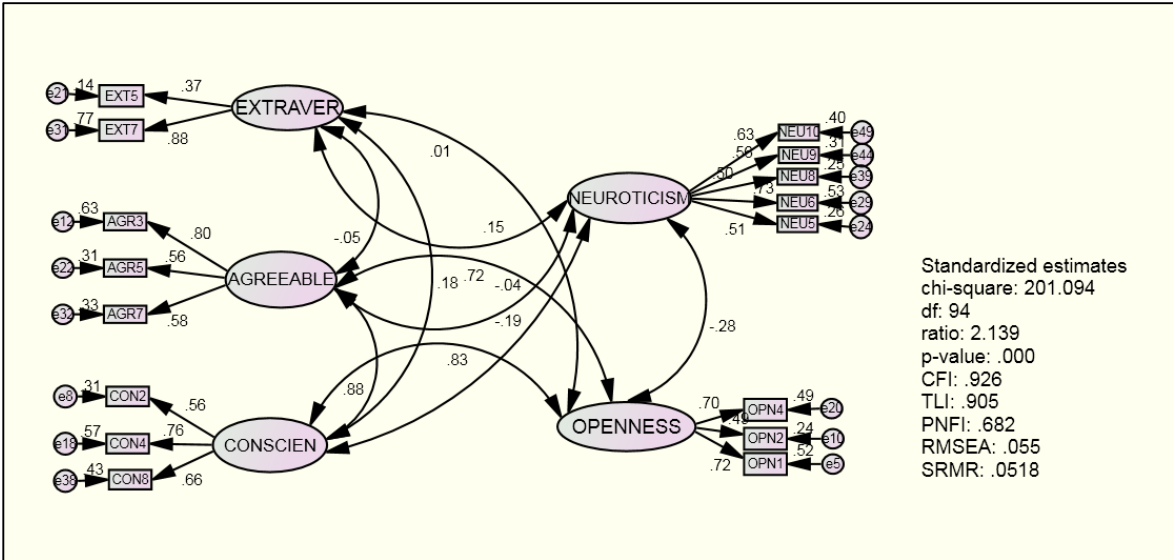
The first measurement model analysis was conducted for Big Five personality traits. This model was hypothesised to have five factors, namely Neuroticism, Extraversion, Agreeableness, Conscientiousness and Openness to experience with ten latent variables each. As shown in Figure 4.1, the model does not achieve goodness-of-fit criteria, with the value of  $CMIN/DF=2.990$  ( $X^2=3483.365$ ,  $DF=1165$ ) with  $p=.000$ , which is less than 3 (Hair et al, 2010).

The values of TLI= .421, CFI=.449, PNFI=.342, RMSEA=0.072, and SRMR=0.1017 do not achieve the cut-off values. Hence, model re-specification was conducted.



**Figure 4.1: Measurement Model for Big Five Personality Traits – Before Model Re-specification**

The model was re-specified in order to achieve the goodness-of-fit (GOF) index. As shown in Figure 4.2, the model is acceptably fit with the value of CMIN/DF=2.139 ( $X^2=201.094$ , DF=94) with  $p=.000$ , which is less than 3. In addition, values of TLI= .905, CFI=.926, PNFI=.682, RMSEA=0.055, and SRMR=0.0518 are within the suggested fit values. This shows that the model fits the data adequately.



**Figure 4.2: Measurement Model for Big Five Personality Traits  
 – After Model Respecification**

The summary of the cut-off values as suggested by scholars and the values achieved before and after the model re-specification is shown in Table 4.13.

**Table 4.13: Summary of Goodness-of-Fit**

<b>Fit Indices</b>	<b>Cut-off Values</b>	<b>Values Before Model Re-specification</b>	<b>Values After Model Re-specification</b>
<b><u>Chi-square (<math>\chi^2</math>)</u></b>			
Chi-square (p-value)	-	3483.365 (p=.000)	201.094 (p=.000)
Degrees of Freedom (df)	-	1165	94
<b><u>Absolute Fit Indices</u></b>			
Relative Chi-square, $X^2/df$ (CMIN/DF)	2:1 (Tabachnick & Fidell, 2007) (<2) 3:1 (Hair et al., 2010; Kline, 2005) (<3)	2.990	2.139
Root Mean Square Error of Approximation (RMSEA)	< 0.08 (Byrne, 2001; Kline, 2005; Schumacker & Lomax, 2010)	0.072	0.055
Standardized Root Mean Square Residual (SRMR)	SRMR < 0.08 (Hu & Bentler, 1999)	0.1017	0.0518
<b><u>Incremental Fit Indices</u></b>			
Comparative Fit Index (CFI)	CFI > 0.90 (Byrne, 2001; Hair et al., 2010; Kline, 2005; Schumacker & Lomax 2010).	0.449	0.926
<b><u>Relative Fit Indices</u></b>			
Tucker-Lewis Index (TLI)	TLI > 0.90 (Hu & Bentler, 1999)	0.421	0.905
<b><u>Parsimony Fit Indices</u></b>			
Parsimony Normed Fit Index (PNFI)	PNFI > 0.60 (Garson, 2009)	0.342	0.682

#### 4.2.4.2 Evaluating Construct Validity

##### a. Convergent and Discriminant Validity

Construct validity was evaluated by examining the factor loadings within the constructs as well as the correlation between the constructs (Anderson & Gerbing, 1988). Even though the factor loadings on many of the constructs were unsatisfactory, but since the model is fit, then this provides evidence of satisfactory item convergence on the intended constructs (i.e. ranged between 0.37 to 0.88) (see Table 4.14). In addition, factor loading value of 0.3 is acceptable for sample size more than 350 in order to get the practical significant (Hair et al., 2010).

**Table 4.14: Factor Loadings for Personality Traits**

<b>Personality</b>	<b>Items</b>	<b>Factor Loadings</b>
Extraversion	EXT5	.37
	EXT7	.88
Agreeableness	AGR3	.80
	AGR5	.56
	AGR7	.58
Conscientiousness	CON2	.56
	CON4	.76
	CON8	.66
Neuroticism	NEU5	.51
	NEU6	.73
	NEU8	.50
	NEU9	.56
	NEU10	.63
Openness	OPN1	.72
	OPN2	.49
	OPN4	.70



This study used the square root of the AVE and cross loading matrix to assess the discriminant validity as suggested by Igarria, Guimaraes, and Davis (1995) and Barclay, Higgins and Thompson (1995). According to Barclay, Higgins and Thompson (1995), the model is assessed to have acceptable discriminant validity if the square-root of the AVE of a construct is larger than its correlation with other constructs. The results are detailed in Table 4.16 with the square roots of the AVEs shown in the main diagonal of the table. The off diagonal elements represent the correlations among the latent variables. Table 4.16 indicates that the discriminant validity of the latent variables was met, which means that all the latent variables are different from each other.

Discriminant validity of the measures has also been cross-checked through a series of confirmatory factor analyses for each pair of constructs (Atuahene-Gima, 2005) and cross loading matrix (Barclay, Higgins, & Thompson 1995). In each test, the  $\Delta\chi^2$  (1 df) for the constrained model were found to be significantly greater than the unconstrained model, thus showing the adequate discriminant validity (Table 4.15).

**Table 4.15: Reliability, Average Variance Extracted (AVE) and Discriminant Validity of Personality Model**

	CR	AVE	1	2	3	4	5
<b>Neuroticism (1)</b>	0.673	0.411	<b>0.641</b>				
<b>Openness (2)</b>	0.676	0.417	0.278	<b>0.646</b>			
<b>Conscientiousness (3)</b>	0.698	0.438	0.206	0.528	<b>0.662</b>		
<b>Agreeableness (4)</b>	0.684	0.426	0.049	0.416	0.578	<b>0.653</b>	
<b>Extraversion (5)</b>	0.568	0.427	0.177	0.010	0.190	0.452	<b>0.654</b>

## 4.2.5 SECTION FIVE: EFFECTS OF SOCIAL MEDIA ON PERSONALITY TRAITS

This section highlights the results of the second research objective, which is to examine the effects of social media usage on personality traits. For hypotheses testing purposes, social media applications being chosen were the five frequently used applications (as shown in Table 4.8) which are Facebook, YouTube, WeChat, WhatsApp and Instagram.

### 4.2.5.1 Hypothesis 1

H<sub>1a</sub> Actual usage of Facebook has direct positive effect on Extraversion.

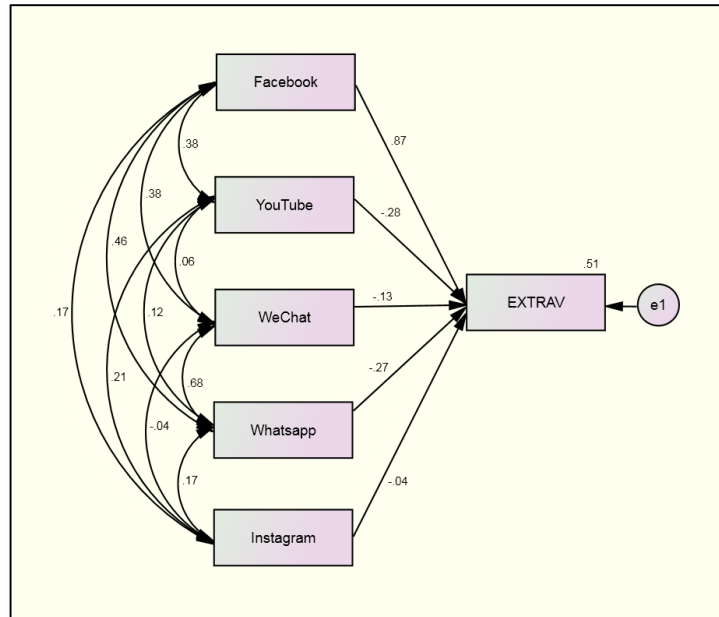
H<sub>1b</sub> Actual usage of YouTube has direct positive effect on Extraversion.

H<sub>1c</sub> Actual usage of WeChat has direct positive effect on Extraversion.

H<sub>1d</sub> Actual usage of WhatsApp has direct positive effect on Extraversion.

H<sub>1e</sub> Actual usage of Instagram has direct positive effect on Extraversion.

The hypotheses were tested by using path/latent analysis. Facebook, YouTube, WeChat, WhatsApp and Instagram are assumed to have direct positive effect on the Extraversion. As can be seen in Figure 4.3, actual usage of Facebook has direct positive effect on Extraversion ( $\beta=.87$ ,  $p<.05$ ), whereas other social media applications have negative effects on Extraversion, i.e. YouTube ( $\beta=-.28$ ,  $p<.001$ ), WeChat ( $\beta=-.13$ ,  $p<.01$ ), WhatsApp ( $\beta=-.27$ ,  $p<.001$ ), and Instagram ( $\beta=-.04$ ,  $p<.05$ ). Thus, only H<sub>1a</sub> is supported, while H<sub>1b</sub>, H<sub>1c</sub>, H<sub>1d</sub> and H<sub>1e</sub> are not supported. It is also estimated that Facebook, YouTube, WeChat, WhatsApp and Instagram as predictors of Extraversion explain 51 percent of its variance.



**Figure 4.3: Path Analysis of Hypothesis 1**

#### 4.2.5.2 Hypothesis 2

H<sub>2a</sub> Actual usage of Facebook has direct positive effect on Conscientiousness.

H<sub>2b</sub> Actual usage of YouTube has direct positive effect on Conscientiousness.

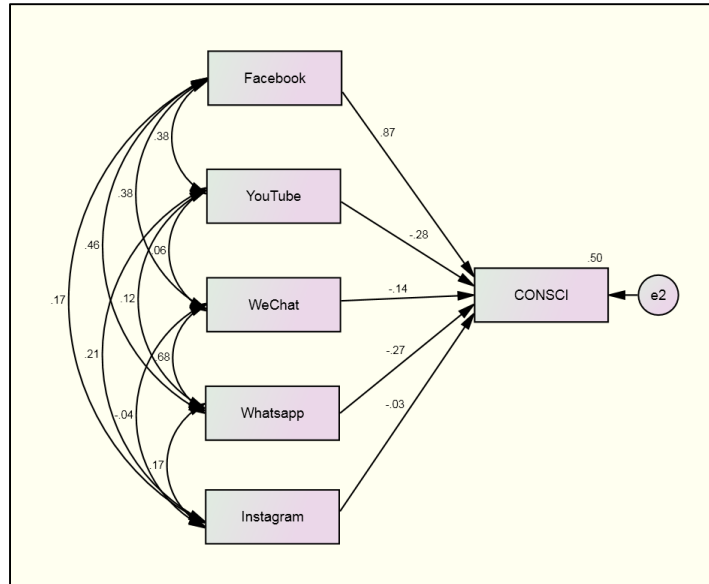
H<sub>2c</sub> Actual usage of WeChat has direct positive effect on Conscientiousness.

H<sub>2d</sub> Actual usage of WhatsApp has direct positive effect on Conscientiousness.

H<sub>2e</sub> Actual usage of Instagram has direct positive effect on Conscientiousness.

Similar to H<sub>1</sub>, the hypotheses 2 (H<sub>2a-2e</sub>) were tested by using path/latent analysis. Facebook, YouTube, WeChat, WhatsApp and Instagram are assumed to have direct positive effect on the Conscientiousness. As can be seen in Figure 4.4, actual usage of Facebook has direct positive effect on Extraversion ( $\beta=.87$ ,  $p<.05$ ), whereas other social media applications have negative

effects on Extraversion, i.e. YouTube ( $\beta=-.28, p<.001$ ), WeChat ( $\beta=-.14, p<.01$ ), WhatsApp ( $\beta=-.27, p<.001$ ), and Instagram ( $\beta=-.03, p<.05$ ). Thus, only  $H_{2a}$  is supported, while  $H_{2b}$ ,  $H_{2c}$ ,  $H_{2d}$  and  $H_{2e}$  are not supported. It is also estimated that Facebook, YouTube, WeChat, WhatsApp and Instagram as predictors of Conscientiousness explain 50 percent of its variance.



**Figure 4.4: Path Analysis of Hypothesis 2**

### 4.2.5.3 Hypothesis 3

$H_{3a}$  Actual usage of Facebook has direct positive effect on Agreeableness.

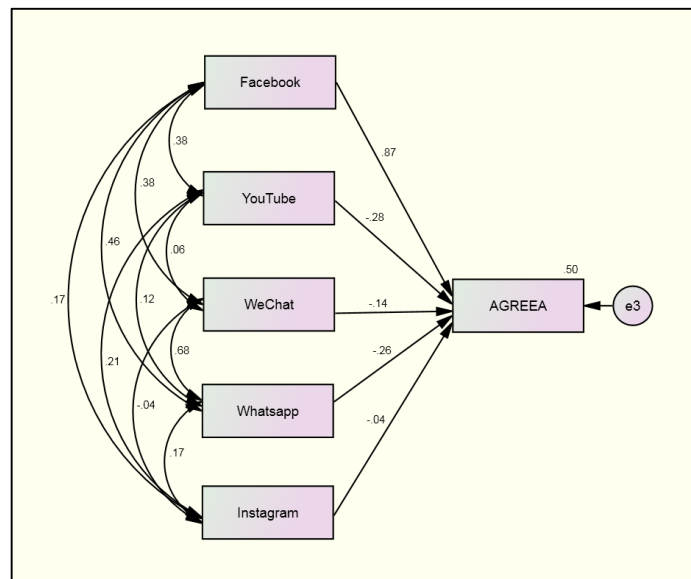
$H_{3b}$  Actual usage of YouTube has direct positive effect on Agreeableness.

$H_{3c}$  Actual usage of WeChat has direct positive effect on Agreeableness.

$H_{3d}$  Actual usage of WhatsApp has direct positive effect on Agreeableness.

$H_{3e}$  Actual usage of Instagram has direct positive effect on Agreeableness.

The hypotheses 3 ( $H_{3a-3e}$ ) were also tested by using path/latent analysis. Facebook, YouTube, WeChat, WhatsApp and Instagram are assumed to have direct positive effect on the Agreeableness. As can be seen in Figure 4.5, actual usage of Facebook has direct positive effect on Extraversion ( $\beta=.87, p<.05$ ), whereas other social media applications have negative effects on Extraversion, i.e. YouTube ( $\beta=-.28, p<.001$ ), WeChat ( $\beta=-.14, p<.01$ ), WhatsApp ( $\beta=-.26, p<.001$ ), and Instagram ( $\beta=-.04, p<.05$ ). Thus, only  $H_{3a}$  is supported, while  $H_{3b}$ ,  $H_{3c}$ ,  $H_{3d}$  and  $H_{3e}$  are not supported. It is also estimated that Facebook, YouTube, WeChat, WhatsApp and Instagram as predictors of Agreeableness explain 50 percent of its variance.



**Figure 4.5: Path Analysis of Hypothesis 3**

#### 4.2.5.4 Hypothesis 4

H<sub>4a</sub> Actual usage of Facebook has direct positive effect on Neuroticism.

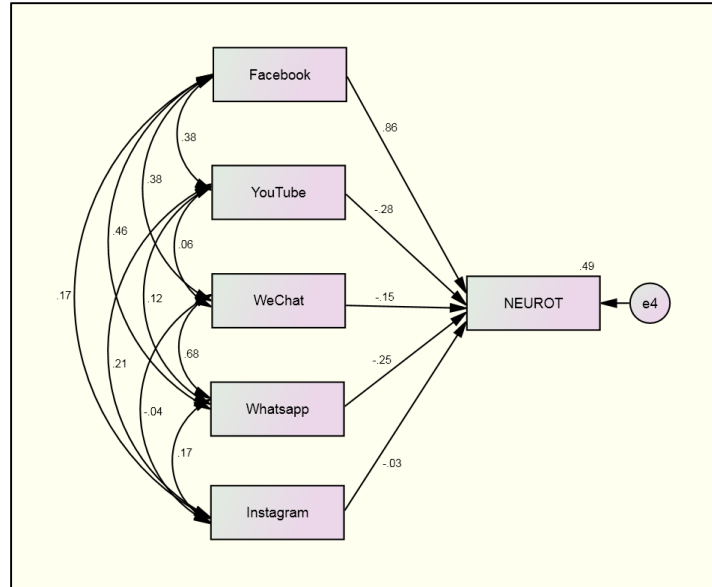
H<sub>4b</sub> Actual usage of YouTube has direct positive effect on Neuroticism.

H<sub>4c</sub> Actual usage of WeChat has direct positive effect on Neuroticism.

H<sub>4d</sub> Actual usage of WhatsApp has direct positive effect on Neuroticism.

H<sub>4e</sub> Actual usage of Instagram has direct positive effect on Neuroticism.

Similar to H<sub>1</sub>, the hypotheses 4 (H<sub>4a-4e</sub>) were tested by using path/latent analysis. Facebook, YouTube, WeChat, WhatsApp and Instagram are assumed to have direct positive effect on the Conscientiousness. As shown in Figure 4.6, actual usage of Facebook has direct positive effect on Extraversion ( $\beta=.86$ ,  $p<.05$ ), whereas other social media applications have negative effects on Extraversion, i.e. YouTube ( $\beta=-.28$ ,  $p<.001$ ), WeChat ( $\beta=-.15$ ,  $p<.01$ ), WhatsApp ( $\beta=-.25$ ,  $p<.001$ ), and Instagram ( $\beta=-.03$ ,  $p<.05$ ). Thus, only H<sub>4a</sub> is supported, while H<sub>4b</sub>, H<sub>4c</sub>, H<sub>4d</sub> and H<sub>4e</sub> are not supported. It is also estimated that Facebook, YouTube, WeChat, WhatsApp and Instagram as predictors of Neuroticism explain 50 percent of its variance.



**Figure 4.6: Path Analysis of Hypothesis 4**

#### 4.2.5.5 Hypothesis 5

H<sub>5a</sub> Actual usage of Facebook has direct positive effect on Openness to Experience.

H<sub>5b</sub> Actual usage of YouTube has direct positive effect on Openness to Experience.

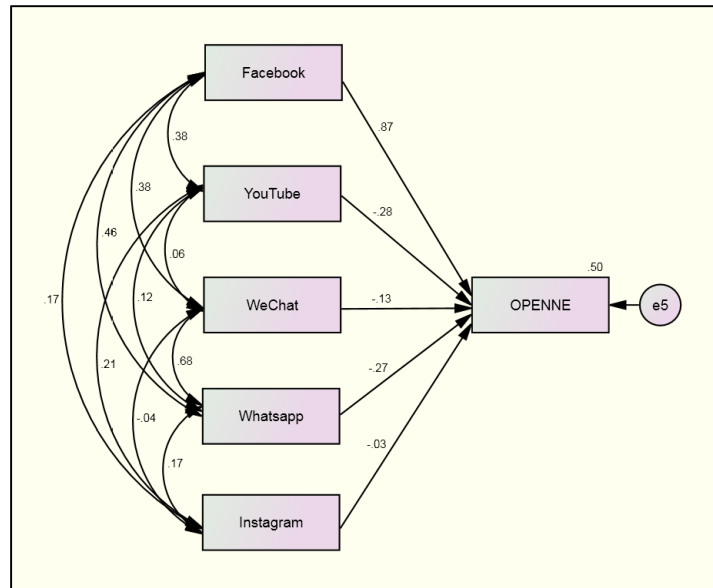
H<sub>5c</sub> Actual usage of WeChat has direct positive effect on Openness to Experience.

H<sub>5d</sub> Actual usage of WhatsApp has direct positive effect on Openness to Experience.

H<sub>5e</sub> Actual usage of Instagram has direct positive effect on Openness to Experience.

The hypotheses 5 (H<sub>5a-5e</sub>) were also tested by using path/latent analysis. Facebook, YouTube, WeChat, WhatsApp and Instagram are assumed to have direct positive effect on the Agreeableness. As shown in Figure 4.7, actual usage of Facebook has direct positive effect on Extraversion ( $\beta=.87, p<.05$ ), whereas other social media applications have negative effects on

Extraversion, i.e. YouTube ( $\beta=-.28$ ,  $p<.001$ ), WeChat ( $\beta=-.13$ ,  $p<.01$ ), WhatsApp ( $\beta=-.27$ ,  $p<.001$ ), and Instagram ( $\beta=-.03$ ,  $p<.05$ ). Thus, only  $H_{5a}$  is supported, while  $H_{5b}$ ,  $H_{5c}$ ,  $H_{5d}$  and  $H_{5e}$  are not supported. It is also estimated that Facebook, YouTube, WeChat, WhatsApp and Instagram as predictors of Openness to experience explain 50 percent of its variance.



**Figure 4.7: Path Analysis of Hypothesis 5**

#### 4.2.5.6 Nomological Validity

It is observed that among the primary hypotheses  $H_{1a}$ ,  $H_{2a}$ ,  $H_{3a}$ ,  $H_{4a}$ , and  $H_{5a}$  were supported (significant t-values), while hypotheses  $H_{1b}$  to  $H_{5e}$  were not supported (insignificant t-values). According to Santosa, Wei, and Chan (2005), the nomological validity or explanatory power of the proposed model can be assessed by observing the  $R^2$  values of the endogenous constructs.



The five models as shown in Figures 4.3, 4.4, 4.5, 4.6 and 4.7 explain 50% of the variance ( $R^2$ ) of the effect of social media usage on Extraversion. All  $R^2$  values for Extraversion exceeded the minimum required value of 0.10 as suggested by Falk and Miller (1992). The summary of hypothesis testing is shown in Table 4.16.

**Table 4.16: Hypothesis Test Results**

<b>Hypothesis Statement</b>	<b><math>\beta</math></b>	<b>Result</b>
H <sub>1a</sub> Actual usage of Facebook has direct positive effect on Extraversion.	0.87	<b>Supported</b>
H <sub>1b</sub> Actual usage of YouTube has direct positive effect on Extraversion.	-0.28	Not supported
H <sub>1c</sub> Actual usage of WeChat has direct positive effect on Extraversion.	-0.13	Not supported
H <sub>1d</sub> Actual usage of WhatsApp has direct positive effect on Extraversion.	-0.27	Not supported
H <sub>1e</sub> Actual usage of Instagram has direct positive effect on Extraversion.	-0.04	Not supported
H <sub>2a</sub> Actual usage of Facebook has direct positive effect on Conscientiousness.	0.87	<b>Supported</b>
H <sub>2b</sub> Actual usage of YouTube has direct positive effect on Conscientiousness.	-0.28	Not supported
H <sub>2c</sub> Actual usage of WeChat has direct positive effect on Conscientiousness.	-0.14	Not supported
H <sub>2d</sub> Actual usage of WhatsApp has direct positive effect on Conscientiousness.	-0.27	Not supported
H <sub>2e</sub> Actual usage of Instagram has direct positive effect on Conscientiousness.	-0.03	Not supported
H <sub>3a</sub> Actual usage of Facebook has direct positive effect on Agreeableness.	0.87	<b>Supported</b>
H <sub>3b</sub> Actual usage of YouTube has direct positive effect on Agreeableness.	-0.28	Not supported
H <sub>3c</sub> Actual usage of WeChat has direct positive effect on Agreeableness.	-0.14	Not supported
H <sub>3d</sub> Actual usage of WhatsApp has direct positive effect on Agreeableness.	-0.26	Not supported
H <sub>3e</sub> Actual usage of Instagram has direct positive effect on Agreeableness.	-0.04	Not supported
H <sub>4a</sub> Actual usage of Facebook has direct positive effect on Neuroticism.	0.86	<b>Supported</b>
H <sub>4b</sub> Actual usage of YouTube has direct positive effect on Neuroticism.	-0.28	Not supported
H <sub>4c</sub> Actual usage of WeChat has direct positive effect on Neuroticism.	-0.15	Not supported

H <sub>4d</sub>	Actual usage of WhatsApp has direct positive effect on Neuroticism.	-0.25	Not supported
H <sub>4e</sub>	Actual usage of Instagram has direct positive effect on Neuroticism.	-0.03	Not supported
H <sub>5a</sub>	Actual usage of Facebook has direct positive effect on Openness to Experience.	0.87	<b>Supported</b>
H <sub>5b</sub>	Actual usage of YouTube has direct positive effect on Openness to Experience.	-0.28	Not supported
H <sub>5c</sub>	Actual usage of WeChat has direct positive effect on Openness to Experience.	-0.13	Not supported
H <sub>5d</sub>	Actual usage of WhatsApp has direct positive effect on Openness to Experience.	-0.27	Not supported
H <sub>5e</sub>	Actual usage of Instagram has direct positive effect on Openness to Experience.	-0.03	Not supported

### 4.3 CHAPTER SUMMARY

This chapter highlighted the analysis of data and results of the research. Section One discussed about the demographic profile of the respondents. A total of 382 university students were involved in the cross-sectional survey. Section Two highlighted the social media usage and acceptance among students while Section Three emphasised on the mean and standard deviation of five-factor personality traits. Section Four discussed on the Confirmatory Factor Analysis which were conducted by using AMOS software. Different model fit indices are used in structural equation modeling as there is no consensus on the performance of adequacy of model fit by a certain fit index. The most commonly used fit indices are comparative fit index (CFI), Parsimony Normed Fit Indices (PNFI), Incremental fit indices (IFI), Parsimony Fit Indices (PFI), RMSEA and SRMR. Section Five highlighted the construct validity testing in which convergent, discriminant and nomological Validity were evaluated.

## **CHAPTER FIVE**

### **DISCUSSION AND CONCLUSION**

#### **5.1 INTRODUCTION**

The emergence of Web 2.0 and the subsequent emergence of social media applications have significantly changed the way in which people interact, socialise, behave, live and work. Millions of people in Malaysia use the Internet every day in order to communicate in a convenient, relatively cheap, easily accessible, and quick manner, not only on a one-to-one basis but also in groups. We have seen how Facebook emerged from the day it was launched in February 2004 by Mark Zuckerberg, Dustin Moskovitz, Chris Hughes, and Eduardo Saverin from their dorm room at Harvard (Pereira, Salgueiro & Mateus, 2014) until it becomes the world's biggest social network site on the planet.

In this research, we explored the relationship between social media use and personality traits. We found that extraversion people tend to be highly affected by social media usage. However, the personality traits of agreeableness, neuroticism, conscientiousness and openness to experience were not found to get much influence by the social media use.

This chapter provides a discussion pertaining to the research being conducted. As mentioned in Chapter One, there are two objectives of the research, as follows:

- i. to identify the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of social media usage;

- ii. to examine the effects of social media usage on the five-factor personality traits.

This chapter discusses the results of this study based on the above objectives and suggest few recommendations.

## **5.2 DISCUSSION**

This section is divided into two sub-sections, according to the research objectives. The first section discusses the profiles of social media usage among the university students, and the second section discusses the effects of social media usage on students' personality traits.

### **5.2.1 Profiles of Social Media Usage**

The first objective of this research is to identify the profile of social media usage among users in Malaysia, including experience, frequency of use, purpose, and reasons of social media usage. This study found that majority of the respondents (84.1%) spent below RM150 on telephone and Internet while more than 95% owned notebook computer, while almost 79% owned smartphones. The highest score for purpose of using SM is to communicate, either with friends or families. This is not surprising as the purpose of using social media for communication was also mentioned in previous studies (Fallows, 2004; Siti Ezaleila & Azizah, 2010; Safurah, Khaizuran & Azmi, 2010; Farah Dina & Melati, 2013). Safurah, Khaizuran and Azmi (2010) revealed that the reasons for using social networks varies, but the highest given reasons are to socialise with friends and seek information. This finding was similar to that of Lenhart et al.

(2010). This study also confirmed that Facebook maintains its rank as the most preferred social networking sites, which is similar to the findings from Siti Ezaleila and Azizah (2010).

This study also discovered that majority of the respondents were being introduced to social media by friends. However, it is also important to highlight that 37% stated that their teachers or lecturers have introduced them to social media. This indicates that teachers and lecturers also play an important role in the social media awareness and usage.

Unsurprisingly, all of the respondents use Facebook (100%). Furthermore, they also reported using applications such as YouTube, WeChat, and WhatsApp, and Instagram. The least used social media application is online games, Twitter, wiki, and blogs. The findings are similar with the findings by Safurah, Khaizuran and Azmi (2010) who revealed that majority of the respondents used Facebook, while the least used social media is blog. Result from Ozguven and Mucan (2013) also revealed similar pattern in that Facebook is the most preferred site among university students in Turkey. In addition, the finding is also similar to that of Lenhart et al. (2010) which showed that blogging has not attracted much attention amongst youngsters.

### **5.2.2 Effects of Social Media Usage on the Personality Traits**

The second objective of this research is to examine the effects of social media usage on the five-factor personality traits. As mentioned in the previous chapter, social media refers to the top five applications which have highest usage, namely Facebook, YouTube, WeChat WhatsApp and Instagram. As stated by Lenhart et al. (2010), the usage of social media was also associated with

human personality. Kaplan and Haenlein (2010) also emphasised that the more time an individual spends on the Internet, the greater is the social behavioral influence exerted on the individual by the people they communicate with online. In this current research, the five social media applications, namely Facebook, YouTube, WeChat, WhatsApp and Instagram were hypothesised to have direct positive effect on the five-factor personality traits, which are extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience.

Results revealed that only Facebook has direct positive and strong effect on all five-factor ( $\beta > .80$ ), whereas other social media applications usage have negative effect on the personality traits. This means that the usage of YouTube, WeChat, WhatsApp and Instagram has actually not affected the university students. This finding can also be relate to the above finding in which all of the respondents use Facebook, whereas only 47 to 82% of the respondents use YouTube, WeChat, WhatsApp and Instagram. So the frequent usage of Facebook would affect the personality of its users. As proved by previous studies (Wilson, Fornasier, & White, 2010; Ross, Orr, Sisc, Arseneault, Simmering & Orr, 2009; Gosling, Augustine, Vazire, Holtzman & Gaddis, 2011), Facebook usage had influenced users in different personality dimensions. Various features provided in Facebook are mainly the reasons why people love to use Facebook and somehow continue to use it for a long time.

Extraversion which means that of a person who possesses characteristics as approachable, sociable, friendly, lively, optimistic and energetic proved to be affected by the usage social media. This finding is paralleled to that of Correa et al. (2010) which found that extraversion was positively related to social media use, while emotional stability (opposite to neuroticism) was

negatively related to social media use. The finding is also similar with Wang, Jackson, Zhang and Su (2012), which state that extroverts are more likely to use the communicative function of SNS (in particular Facebook) including status update, comment, and adding more friends.

Neuroticism relates to anxious and upset, unable to control anger and low self-esteem (Gelissen & de Graaf, 2006; Tengku Faekah, 2010; Yoo & Gretzel, 2010). Particular features of social media nowadays may contribute to its attractiveness for people who are neurotic and have difficulty in face-to-face social communication. Papacharissi and Rubin (2000) stated that people who were socially anxious and had difficulty in face-to-face communication see the Internet as an alternative communication way. In The finding of this research is in line with previous studies that the usage of Facebook highly affected neurotic people. Wolfradt and Doll (2001) found that individuals high on neuroticism tend to use the Internet to avoid loneliness and have a strong interest in using the Internet for communication.

Meanwhile, agreeableness indicates a person with most trustworthy, honest, tolerant, good-natured, forgiving and soft-hearted. Therefore, when relate to the Facebook usage, agreeableness person get affected when they use Facebook frequently. In addition, agreeable people who are welcoming and easy to get along with are affected by Facebook because they can easily get along with their friends, welcome new virtual friendships and trust their virtual friends. People who are low in agreeableness principally selfish, uncooperative, and not afraid to be self-centered (Costa & McCrae, 1992). With regards to this research, the usage of Facebook will increase the level of agreeableness of oneself, thus contribute to a better person.

Similar to that of conscientiousness in which high score on conscientiousness indicates a person as being responsible, efficient, organized, productive, thorough, achievement-oriented, self-disciplined and well-informed. Thus, these characteristics of conscientiousness do not easily influenced by the social media usage. Conscientiousness seems to be negatively related to Internet use in general (Wilson, Fornasier & White, 2010) because conscientious individuals seem to be more dutiful in their everyday (offline) tasks and tend to regard the Internet (and Facebook possibly even more) as an unwanted distraction from their daily routine, which might lead to less engagement in online activities (Stieger, Burger, Bohn, & Voracek, 2013). However, result from this study revealed that conscientious individuals were also affected by the Facebook usage.

Openness to experience indicates those who are explorative or imaginative, creative, appreciate artistic values, willing to try new things, can easily adapt to changes, open to different ideas or opinions. Openness is associated with looking for new experiences; therefore Ross, Orr, Sisic, Arseneault, Simmering and Orr (2009) stressed that this might be the reason why open individuals try out new means of communication such as Facebook in the first place. Result of this study proved that this type of personality trait has also being influenced by the use of Facebook. University students, at their age, are known to be more explorative, imaginative, creative, willing to try new things, and they can also easily adapt to changes and open to different ideas or opinions. By using Facebook, they get new ideas from others, become more creative in their postings, and learn to adapt to changes online.



Results of this study revealed that Facebook is the most influential medium towards teenagers nowadays. All of the respondents stated that they use Facebook, and inferential analysis proved that this social network site has direct effect towards teenagers' personality traits. Hence, it is crucial for all the stakeholders to pay attention to the usage of this medium. This group of young people will become the Malaysian future leaders. Their personality traits need to be developed in a proper manner so that they will grow up to become a more responsible and accountable citizen.

### **5.3 IMPLICATIONS OF THE RESEARCH**

This particular study has far reaching implications for policy, methodological and theoretical level. Even though the effects of social media on human beings are well aware, yet its effects on the personality traits are less researched into. The literatures available from the social media and personality studies are not sufficient to arrive at appropriate inference about the issues related to users' personality, especially among university students. Considering this factor, this particular research extent better theoretical framework to the existing literature through survey regarding the issues related to personality traits and social media.

Further the study pointed out important factors that can be considered by the social media providers to re-look into the design and development of the social media applications to suit the various personality traits of the users. This particular study used the structural equation modeling technique to test the hypotheses and arrive at the result. Hence the result provides better validity of the outcome and the social media providers can better improve the adoption strategies so that users could use it for betterment. Last but not least, the study further leading to the policy

makers, especially the government to look into the results obtained from this research and force the social media providers to take serious consideration when developing and promoting the applications.

#### **5.4 SUGGESTIONS FOR FUTURE RESEARCH**

As mentioned in Chapter Four, the 50-item personality traits tested in the measurement model resulted only 16 items remain for model fit. Hence, the Big Five personality traits might not be that relevant to the Malaysian culture. Future research in Malaysia or at regional level might consider adapting or adopting the personality test developed by Malaysian local researchers, for instance Tajma™ Personality Test by Prof. Datuk Dr. Tajudin Ninggal, or Sidek Personality Inventory by Prof. Sidek Mohd Noah. By adapting or adopting the personality tests, it is hoped that the model for social media usage can be well associated to the eastern culture.

Another suggestion is pertaining to the sample selection. Future research might consider a covering broader sample such as all Malaysian university students or other populations such as adolescents, teenagers, women, the disabled people, and senior citizens. This will then help in determining whether the use of social media affects the personality traits of these broader populations and actions might be suggested to improve the quality of life of our society holistically.

## **5.5 CONCLUSION**

In conclusion, this research is noble in determining the influence of social media use by the university students in developing their personality. Diversity and integration with social media use showed that the media is the backbone of their daily interactions. Excessive use and addiction to social media among students need to be monitored as to ensure the negative effects are minimized, if not prevented. Personality, which is formed partly as a result of the continued use of social media, will surely affect their lives.

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