

THE INFLUENCE OF ONLINE SOCIAL NETWORKING BEHAVIOUR
TOWARDS ACADEMIC PERFORMANCE OF DESIGNATED SECONDARY
SCHOOL STUDENTS IN KLANG VALLEY

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DEDICATION

This thesis is dedicated to my family, especially my husband Joyveri, my kids Ellijah and Elisha, my mother Baun and my sister Nora, all my nephews especially to Dr. Paul Patrick who have given me so much support throughout this journey.

This is also dedicated to my late father who has taught me the value of dedication and patience that shown throughout his life, even until his last breath.

Ultimately, thank you Lord for this opportunity, His endless grace and loving kindness, that enable me to complete this journey.

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ABSTRACT

Recent statistics indicate that the utilization of Online Social Networking among Malaysian youngsters is increasing exponentially. These youngsters who predominantly are students, use Online Social Networking daily. This recent trend is now often accompanied by parental worry of potential negative impact of Online Social Networking which may be detrimental to their children's academic performance. Even though there are numerous literature related to Online Social Networking, there are limited research on Online Social Networking behaviour and its relation to academic performance especially in the context of Malaysian secondary school students. Most studies on Online Social Networking behaviour were conducted at tertiary level and concentrated on developed countries in the West. Hence, this study investigated the Online Social Networking behaviour and its relation to academic performance among secondary school students. The conceptual framework is based on Unified Theory of Acceptance and Use of Technology on Students (UTAUTS) and 'ACADEMIC' variables synthesized from the literature. The incorporation of 'ACADEMIC' to the UTAUTS framework to study the impact of students' academic performance is new. A survey was conducted on 247 students from selected six secondary schools in Klang Valley. The study identified four crucial factors that influence students' adoption and use behaviour of Online Social Networking: performance expectancy, effort expectancy, social influence, and facilitating condition. The results showed positive and significant relationships among all the factors. On the impact of Online Social Networking with academic performance, the result showed that the adoption and use of Online Social Networking is positively correlated with the students' academic performance. The result indicated that the usage of Online Social Networking is vital in enhancing knowledge and social skills among students beyond the school setting, which helps to improve their academic performance. In sum, the findings of this study can be used to harness the benefits of Online Social Networking to enhance students' learning experience.

ABSTRAK

Statistik menunjukkan bahawa penggunaan Rangkaian Sosial Dalam Talian meningkat secara mendadak dalam kalangan remaja di Malaysia. Para remaja yang kebanyakannya terdiri daripada golongan pelajar menggunakan Rangkaian Sosial Dalam Talian setiap hari. Trend ini sering dikaitkan dengan kebimbangan para ibu bapa akan kesan buruk disebabkan penggunaan Rangkaian Sosial Dalam Talian terhadap pencapaian akademik pelajar. Walaupun terdapat banyak kajian mengenai Rangkaian Sosial Dalam Talian, namun kajian yang melibatkan topik penerimaan dan penggunaan Rangkaian Sosial Dalam Talian dalam konteks pelajar sekolah menengah adalah terhad. Kebanyakan kajian Rangkaian Sosial Dalam Talian hanya melibatkan para pelajar universiti dan berfokus di negara-negara maju di barat. Oleh yang demikian, kajian ini bertujuan untuk menyiasat penggunaan Rangkaian Sosial Dalam Talian dan hubungannya dengan pencapaian akademik dalam kalangan pelajar sekolah menengah. Kajian ini adalah berdasarkan kerangka teori yang baharu iaitu Teori Penerimaan dan Penggunaan Teknologi Pelajar (UTAUTS) dengan penambahan pembolehubah 'AKADEMIK' yang telah disintesiskan melalui literatur. Pemadanan 'AKADEMIK' ke dalam kerangka teori UTAUTS adalah satu pembaharuan. Kajian dijalankan ke atas 247 orang pelajar daripada enam sekolah menengah terpilih di Lembah Klang. Kajian ini mengenalpasti empat faktor penting yang mempengaruhi penerimaan dan penggunaan Rangkaian Sosial Dalam Talian dalam kalangan pelajar: jangkaan prestasi, jangkaan usaha, pengaruh sosial dan keadaan kemudahan. Keputusan menunjukkan hubungan positif dan signifikan di antara semua faktor. Mengenai kesan penggunaan Rangkaian Sosial Dalam Talian terhadap prestasi akademik, keputusan menunjukkan bahawa penggunaan Rangkaian Sosial Dalam Talian berkolerasi secara positif dengan prestasi akademik. Keputusan kajian ini menunjukkan bahawa Rangkaian Sosial Dalam Talian adalah amat penting dalam meningkatkan pengetahuan dan kemahiran bersosial dalam kalangan pelajar di luar waktu sekolah, yang mana mampu meningkatkan prestasi akademik pelajar. Secara kesimpulannya, keputusan kajian ini dapat digunakan dalam mencari peluang yang bermanfaat melalui Rangkaian Sosial Dalam Talian untuk meningkatkan pengalaman pembelajaran dalam kalangan para pelajar.

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LIST OF ABBREVIATIONS

EE	-	Effort Expectancy
FC	-	Facilitating Condition
OSN	-	Online Social Networking
OSNs	-	Online Social Networking Sites
SEE	-	Students' Effort Expectancy
SFC	-	Students' Facilitating Condition
SI	-	Social Influence
SPE	-	Students' Performance Expectancy
SSI	-	Students' Social Influence
SUB	-	Students' Use Behaviour
UB	-	Use Behaviour

LIST OF SYMBOLS

α	-	Cronbach Alpha
N	-	Population Size
r	-	Fraction of responses that we are interested in (For Raosoft Formula)
$Z(c/100)$	-	Critical value for the confidence level c (For Raosoft Formula)

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter begins with the presentation of statistics from the Malaysian Communications and Multimedia Commission (MCMC) to show the current trend of internet technology in Malaysia. The MCMC statistics show that Online Social Networking (OSN) is increasingly becoming an important trend among Malaysians, especially the youngsters. The relationship between education and the development of the nation is also elaborated in the second part of this chapter which is the background of the study. Next, the need to conduct an empirical research to understand the use and practice of OSN usage among school students in Malaysia is explained as the problem statement. The benefits and problems derived from the use of OSN among students are highlighted. The results from empirical studies on OSN and education around the globe are discussed. Subsequently, the research objectives and research questions are outlined. The scope of research is followed by the explanation on the limitations of the study. In the second last part of this chapter, the conceptual definitions to specify terms within the scope or context of the research study is covered. The last part of this chapter includes the operational definitions of the terms.

1.2 Problem Background

A report by the Malaysian Communications and Multimedia Commission (MCMC) in the 2019 Internet Users' Statistics Report stated that in the recent years, Malaysia's yearly broadband penetration rate has increased incredibly. Internet access (for both fixed and mobile broadband) in Malaysian households (study was done based on per one hundred households) was documented as high as 129.4% in Quarter 3 of 2019 as compared to 99.8% in 2016. Meanwhile, the penetration rate of mobile phones (per one hundred inhabitants) slightly dropped to 134.2% in Quarter 3 of 2019 from 139.9% in 2016. However, this percentage is somehow still considered as a high penetration index. The survey by MCMC also stated that the number of internet users in 2018 was 28.7 million, showing an increase of 17% as compared to 24.5 million in 2016. Non-Internet users stood at 12.6%, which dropped from 23.1% in 2016. This data indicates that more Malaysians now have access to the internet. The growth in the broadband segment has caused an increase in the number of internet consumers in Malaysia as well. This is primarily due to better access to better technology network coverage, innovative and competitive new data plans, improved telecommunication network quality, and promotions by telecommunication service providers.

One definition of OSN is 'a series of activities operationalized by a group of people assisted by social technologies' (Hamid et al., 2009). OSN is also referred to as OSNs. OSN is defined by Drury (2008) as an online platform that people utilise to share online content like videos, pictures, text, ideas, news, and many others. Safko and Brake (2008) further defined OSN as a behaviour or action to perform an online gathering among groups of people that use conversational platforms to share information, knowledge, and views. This action to perform an online gathering is made possible by web-based applications which can easily create and exchange content in terms of words, pictures, videos, and audios. The statistics also show that OSN is increasingly becoming an important trend among Malaysians, especially the youngsters. Figure 1.1 shows the summary of MCMC internet users' statistics based on the MCMC report in 2018.

Based on the same MCMC 2018 statistics, it is stated that there were 24.6 million OSN users with 97.3% Facebook account owners, 57% Instagram accounts, 48.3% on YouTube, 23.8% Twitter accounts, 13.3% LinkedIn accounts, and 0.7% on other OSN sites. Except for Twitter, all the other OSN saw an increase as compared to the previous years. Meanwhile, from the 27.8 million communication application users, 98.1% Malaysians claimed that they are on WhatsApp application, 55.6% on Facebook Messenger, 36.8% on WeChat, 25% on Telegram, 14.2% on Skype, and 0.7% on Line and other applications. Except for Twitter, all the other OSN saw an increase as compared to the previous years. Figure 1.2 shows the summary of OSN users in Malaysia based on the 2018 MCMC statistics report.

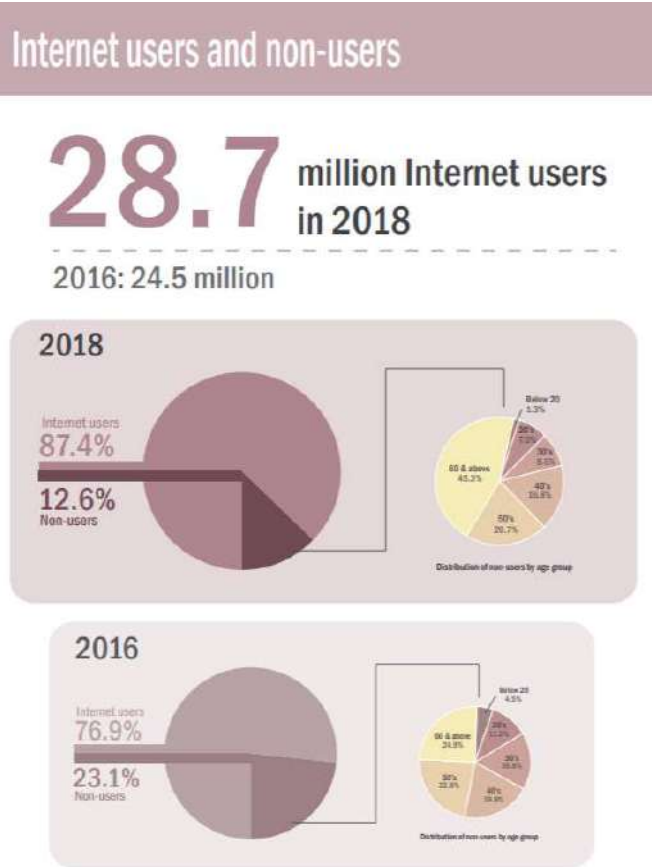


Figure 1.1 Summary of MCMC internet Users' Statistics based on MCMC Report in 2018 (<https://www.mcmc.gov.my/en/resources/statistics/internet-users-survey>)



Figure 1.2 Summary of MCMC internet Users' Statistics based on MCMC Report in 2018 (<https://www.mcmc.gov.my/en/resources/statistics/internet-users-survey>)

The rapid development of computer technology, particularly the internet, also increased the usage of OSN among Malaysians across generations. Boyd (2015) called the use of OSN or social media, microblogs and other Web 2.0 creations as a phenomenon. It emerged as a new paradigm to connect to information, people, and ideas. This phenomenon has become inevitable to many people including to the younger generation and OSN sites have become the most vigorous applications which enable students to communicate, socialise and interact with their friends and lecturers (Hamat et al., 2012). The phenomenon of OSN has risen significantly and according to Chugh and Ruhi (2018), the number of OSN users is increasing daily. Teenagers are among the most avid users of technology and OSN sites in general (Lenhart et al., 2007). Based on the survey by MCMC, it was found that from 24.6 million internet users in 2016, 83.2% were children aged 5 to 17. Communication via texting, getting information and watching videos, as well as social networking, were the top online activities for children (MCMC, 2017).

One of the foundations of asset that a nation can do to secure their society's wellbeing is their commitment and efforts invested into the education sector. When the education sector is made of a group of young people in the modern society, Prensky (2004) called them the "digital generation". With the omnipresence of information and communication technologies (ICTs) that students experience and enjoy today, it is crucial to conduct research as the level and quality of knowledge that education provides today is the key determinant to future society growth and prosperity. As Mahmood (2012) stated, in building human capital to build a nation, education is the key (Mahmood, 2012). Education could provide to people, especially young people, with the essential skills for them to strive in the current job market, stimulates creativity, fosters innovation, and which is the main contributor to economic growth. Classical economists like Adam Smith (2019), Alfred Marshall (1890), and Frederick Engels (1993) fully acknowledged the contribution of education to the development of nations.

Knowledge is crucial to promote a nation's growth, help in creating new values and to fortify a nation to remain competitive. Both education and ICTs play crucial roles and provide tools in building knowledge which is the key determinant to economic prosperity. Meanwhile, human capital is the essential key to create, generate, innovate, and exploit new ideas as well as provide the ability to apply technology through exceptional essential skills to develop the economy. Economy itself is measured by knowledge-based activities and high-technology industries. ICTs, education, and innovation, which are the 'knowledge-economy', should be taken seriously into the national planning strategies (Weber, 2011). Hence, this study aims to cross-check the development of our young generation in attaining knowledge through formal education which is beneficial to the country's economic development.

The competitive global economy needs a nation that continues to progress in tandem with it and it is a necessity to have a high standard of education that will support a high employment standard, social status, high income, and a better living standard. Tilak (2002) emphasised that the living standards and lifestyle of a nation could be enhanced through education. Education is also central to the country's enhancement as it is a necessity and exceptionally important amongst youths. A

good and quality education or learning will holistically prepare students to enable them to thrive in the modern world. In order to contend to the world, the country's education must be able to nurture young Malaysians to be knowledgeable, creative, critical thinker, possess leadership skills, and able to communicate internationally. To be a great nation and to make them able to endure life's inevitable challenges, our students who will become the future generation should be instilled with good values and ethics that make them able to make the right choices for themselves, their families, and the country.

The utilisation of technology such as OSN is one of the factors that can impact the overall education performance of students, either positive or adverse (Cheston, Flickinger & Chisolm, 2013; Glogocheski, 2015). Millions of students have a habit of logging in to their OSN accounts such as Facebook, Youtube, WhatsApp and others as part of their daily routine (Sultan & Noor, 2018). Most of these students utilise OSN mainly for socialising activities, instead of for studying purposes which get them side-tracked from their studies (Oye et al., 2012).

However, many parents or guardians are concerned that students are consuming a lot of time on OSN, and they have less time for their studies. Although parents are concerned about their students' frequent use of OSN, many students proceed to make use of these OSN every day. Akram and Kumar (2017) emphasised that OSN has become more prevalent among students that the major worry now is on how the use of OSN among students affects their academic performance. It was highlighted by O'Keeffe and Clarke (2011) that the growing use of OSN is often associated with the parental worry of potential detriment to their children's academic success. Excessive use of OSN makes the users addicted to the internet (Griffiths et al., 2012). OSN is also considered as time killers as the long hours of online chatting ultimately ends up with a decrease in the quality as well as productivity of efforts (Noh et al., 2012). Students' deficits have been attributed to the usage of OSN during study periods (Nahar et al., 2018).

The time spent on knowledge acquisition is reducing as the students spend more time on OSN (Kirschner and Karpinski 2010). The preparation time for school

and homework is getting lesser and may impair the students' academic achievement. Students might lose focus and spend more time on OSN rather than their studies and there is an abuse of the use of socialising tools by neglecting the informative and educating benefits OSN could offer (Ibrahim, 2012). The excessive use of internet affects students' academic performance as well as has a negative impact on their personality (Zainuddin, Din, and Othman, 2013). OSN is primarily utilised by students for social and leisure activities rather than for education (Oye, 2012). It is also cited by Helou and Rahim (2014) that it was convincing that students utilised OSN just for chatting and friendship activities rather than studying.

Jeong (2005) in his study found that students' obsession with OSN is negatively correlated to their academic development and emotional traits. The result was quite significant. Meanwhile, Ndaku (2013) cited that the use of OSN among students is worrying as it affects their study effort and cause language problems when communicating on OSN. Greenhow (2011) and Karpinski (2009) stated that academic achievement is at harm and becomes deficient when popular OSN like Facebook is largely utilised by young people. Bauerlein (2009), Carr (2008), and Thurlow (2006) also stated that the use of OSN leads to the declining standards of literacy. Even Herring (2007) highlighted that it is a "threat to societal values".

However, despite all the possible negativities highlighted by OSN usage on students, some studies do highlight the benefits. According to Ivala and Gachago (2012), OSN is a new communication platform that shows a significant impact on student motivation to study, affective learning, and a change in the classroom environment. Their study measured the students' engagement through Facebook and blogs and found that the OSN platforms help to enhance the students' performance. Young (2006) found that the students are relying on OSN not just to have access to entertainment but also for learning purposes. Lin et al. (2013) measured how students perceived Twitter as an educational tool and they revealed that students are more interested in information sharing about their courses through OSN platforms.

OSN also enhances students' capacities to generate and stimulate interests in academic subjects (Lau and Chu, 2017). It also helps in promoting online professional learning communities that encourage students, teachers, parents, and community members to communicate with each other (Cox and McLeod, 2013). Prestridge (2014) focused a study on students' OSN particularly on Twitter usage and it was revealed that Twitter supports engagement in learning. OSN also enabled an online social space where students can create, build, and maintain social capital with others (Ellison and Boyd, 2013; Lytras and Garcia, 2008). OSN is recognised as a contemporary innovation that was introduced to enhance communication and collaboration on a wider scale (Aldahdoh et al., 2020).

The existence of a few different theoretical models such as Technology Acceptance Model (Davis, 1989), Theory of Planned Behaviour (Schifter & Azjen, 1985), and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis & Davis, 2003) proves that the use of information technologies generally and OSN specifically, has been accepted and/or used by students. The field has been traditionally analysed through the said models. Some of the popular topics are e-learning, flexible online learning technologies, web-based learning environment and so on.

However, there is a lack of comprehensive models and literatures that relate OSN to academics. There is very limited knowledge available about students' perceptions with regards to the use of OSN as a learning tool and whether such use affects students' performance (Al-Adwan, 2020). Shittu et al. (2011) urged that there are demands for more research to study how OSN is perceived and accepted by students and how it affects the academics via teaching and learning. To provide a better understanding of a phenomenon under study, the theories must focus on a specific context and identify relevant predictors and mechanisms which are essential. It also gives an opportunity to meaningfully extend the theories (Venkatesh et al., 2012).

There are also not many studies in Malaysia on OSN and its adoption among students. This is supported by Helou and Rahim (2014) who emphasised that there

is scant research found in Malaysia that studied the OSN topic. Huang (2018) further emphasised that there is a need to fill the gap as most research had focused on adolescents, and research investigating the relationship between OSN and children or school students have yet to be found to date.

Maloney et al. (2014) stated that limited information exists on how students adopt and utilise OSN, be it for educational or strictly social purposes and this study was on students' utilisation of OSN. Nathanson (2015) indicated that today, little is known as to how OSN affects students' behaviour and related school achievement. Hence, it is important to conduct more empirical research to study the OSN adoption and behaviour, and the impact on students in terms of academic.

This research employed the Unified Theory of Acceptance and Use of Technology (UTAUT) model as the theoretical foundation of this study. This model was developed by Venkatesh et al. (2003) and UTAUT has distilled the critical factors and contingencies related to the prediction of behavioural intention to use technology and technology use. Sánchez-Prieto et al. (2017) explained that the behaviour intention to use technologies also refers to the adoption of technologies. The adoption of technology is the best predictor of future behaviour to use the technology (Kaba & Touré, 2014). The UTAUT model incorporates a few constructs to measure the behaviour intention to use OSN which eventually will determine the actual use behaviour (Wu, Tao & Yang, 2007). The constructs were the direct determinant of students' OSN behavioural intention and subsequent use of OSN, which were measured through the questionnaires adopted from Khong et al. (2013) using the UTAUT model. Hence, in this study, the term adoption was used in the research questions which also refers to the student's intention to use new technologies that eventually influence OSN use behaviour.

1.3 Problem Statement

Since there is a growing concern about students obtaining poor academic results due to the excessive use of OSN when the time should be spent on their studies,

there is a need to conduct an empirical research to study the OSN behaviour, factors for OSN adoption, and the impacts of the aforesaid to the academic performance of high school or secondary school students. As mostly claimed, when students use OSN, their time may be occupied mostly on OSN with less time for their studies which eventually will cause a negative impact on the students' academic results.

Hence, the exploration on the factors that encourage students to adopt OSN is also equally important as the actual use of OSN among the students. There is a need to investigate the adoption factors of OSN among students, which eventually influence the actual use behaviour of OSN. Thereafter, the relationship of the adoption factors and actual use behaviour of OSN will be assessed with the students' academic performance. In a nutshell, part of the questions that need to be investigated are, what are the students' expectations from OSN? What do they expect to gain from OSN activities? Do the students know how to use this technology efficiently and are they competent enough to use OSN and is the environment supporting the students to use OSN, which includes the technical and non-technical infrastructure as well as the social support from friends, family members, and teachers?

There are few studies on OSN behaviour and its relation to academic performance in this country; however, these studies mainly focused only on university students. Studies on high school or secondary school students are found to be scant. Little is known about the research on factors influencing the adoption of OSN, particularly among secondary school students. Studies on the topic of the use of OSN and academic performance mostly employ tertiary or university students as respondents.

From a theoretical perspective, there are insufficient theoretical models to fully capture OSN's adoption by school students that can be employed by the researchers. Adoption is a prerequisite for participation to use OSN among students. Therefore, understanding the adoption of OSN is important. Previous studies mainly have been of an exploratory nature, using different theoretical models and focusing exclusively on general OSN usage pattern and mainly on tertiary students. The need for further research about the factors that contribute to school students' adoption of OSN is

extremely valuable for academic purposes. It may help OSN providers to obtain a more comprehensive view about students' behaviour intention and their use behaviour of OSN among teenagers or school students.

1.4 Research Questions

The understanding on the adoption of OSN, use behaviour and impact to students' academic performance among school students is equally important and needs to be investigated. The OSN trend is inevitable and draws so much interest to study the phenomenon and involves a lot of drastic measures of many including teachers as well as educational administrators. It is vital to look at some of the OSN trending issues faced by students, particularly on students' OSN behaviour and how it affects their academic performance. As of now, students in schools and universities behave in a way where they have to divide their time into studies and online activities. Whether these OSN activities support or help them in their studies, is a question that needs to be explored and answered. Thus, this research shall investigate the influence of OSN behaviour on academic performance among secondary school students in Malaysia. Specifically, this study aims to provide answers to the following questions:

- i. What are the factors that influence the adoption of OSN by the secondary school students?
- ii. What is the framework for the adoption of OSN by the secondary school students based on the identified factors?
- iii. What is the effect of the predictor factors of OSN adoption towards the students' academic performance?

1.5 Research Objectives

The overall objective of this study is to examine the OSN behaviour and its implications towards academic performance among the selected secondary school students. To achieve this, the following objectives shall be accomplished:

- i. To identify factors which influence the adoption and behaviour of OSN by the secondary school students.
- ii. To develop a framework to study the secondary school students' adoption and behaviour of OSN based on the identified factors.
- iii. To determine the effect of the predictor factors on the students' academic performance through the developed framework.

1.6 Scope of the Research

The study is limited to Malaysian school students in secondary schools from a few schools selected in Klang Valley. Only students from classes of Form One, Form Two, and Form Four with the ages of 13, 14 and 16 years old were participants in this study. The remaining Form Three and Form Five students were not allowed to answer the questionnaire by the schools as they were in the final preparation of the national examination. The national examination is taken by Form Three students at the age of 15 and Form Five students at the age of 17.

1.7 Significance of Research

The significant contribution of this research can be classified into two parts. The first part is the theoretical contributions, and the second part is the practical

contributions. In terms of theoretical contributions, the study modified and extended the original research model developed by Venkatesh, Morris, Davis, and Davis (2003). The said research is the Unified Theory of Acceptance and Use of Technology (UTAUT). The extension of the UTAUT model included an additional variable to measure the students' academic performance. The additional variable allows the modified model to examine the relationship between the criteria and antecedents that influence the students' intention to use OSN, their actual use behaviours and academic performance. The original UTAUT model all this while has been very useful to researchers and practitioners in understanding the criteria and antecedents that influence the students' intention to use OSN and their actual use behaviours. However, this new model enabled the students' academic performance to be affiliated with it.

Another contribution from this study will add to the current literature of OSN studies in Malaysia. There are very few studies on the effects of OSN in terms of attitudes, behaviours, and risks, especially in the context of Malaysian secondary schools (Siew Ming, 2016). There is a lack of studies on OSN and academic performance from the Asian context given that a majority of the literature is concentrated on the US or Western countries (Nooraisah et al., 2020). There is a small amount of research concerning the trends of OSN research on Malaysian users (Rahman and Hassan, 2015). The literature on OSN in Malaysia is very limited to date, as suggested by Salvation and Adzharuddin (2014).

For the second part which is the practical contribution, the research grants the schools' stakeholders, namely the administrators, teachers, staff members, parents and even the students, to have an understanding on the students' intention to adopt OSN and their use behaviour. This research helps the stakeholders enhance their understanding and knowledge of the students' OSN behaviour and deliver pertinent information in understanding the OSN use behaviour among secondary students and its implications toward their academic performance.

From a practice perspective, the findings reported in this research can be used by practitioners especially teachers at all levels (primary and secondary levels) in inspiring them to harness OSN in their quest to enhance their students' learning

experience. When OSN is used smartly and wisely, it can offer huge potential value to connect education (Li, 2011). The findings of this study would help parents, teachers or anyone who works with school students in Malaysia by giving insights on tackling the unique problems, issues and challenges related to OSN, particularly on the students' education.

1.8 Research Hypotheses

A research hypothesis, according to Sekaran (2006), is a “logically conjectured relationship between two or more variables expressed in the form of a testable statement”. It is vital in a study to establish a research model which addresses the relationship among factors. This research study is performed with the intention to investigate the outcomes of the following six (6) hypotheses.

1.8.1 Hypothesis 1

According to Venkatesh et al. (2003), Performance Expectancy (PE) is the “degree to which an individual believes that using the system will help him or her to attain gains in job performance”. Performance expectancy relates to the extent to which a person is convinced that the usage of a specific system will help to get better performance (Venketesh, 2010). This study is intended to examine the degree of which the students believe that using OSN will help him or her to achieve what they intended to do in the OSN.

Plenty of studies stated that performance expectancy is reliable in predicting intention in OSN (Arthur et al. 2013; Kaba and Toure, 2014; Lallmahomed et al., 2013; Borrero et al., 2014; Boontarig et al., 2013; Kwon et al., 2014; Choi and Chung, 2013; Qin et al., 2011; Pinho and Soares, 2011; Lorenzo-Romero and Del Chiappa, 2014;

Sabir et al., 2013; Leng et al., 2011). Hence, the first hypothesis of this study is stated below:

Hypothesis 1:

Students' Performance Expectancy (SPE) is positively related to Students' Behaviour Intention (SBI).

1.8.2 Hypothesis 2

Venkatesh et al. (2003) defined Effort Expectancy (EE) "as the degree of ease associated with the use of the system". The construct has three components: ease of usage, perceived ease of use, and complexity (Venkatesh et al., 2003). Venkatesh et al. (2003) also argued that it is a significant factor in the earlier stages of technology adoption for voluntary and mandatory settings.

The relationship between effort expectancy and behavioural intention has always been found to be significant and positive and has a direct effect on the intention to use technology (Khechine, 2016). In this case, when the users think that they do not need to put much effort to use OSN, the intention to use is likely to increase. Effort Expectancy is one of the determinants that positively predicted tablet use intentions (Magsamen-Conrad et al., 2015). The principle that supports this relationship is that easy-to-use systems make users more willing to adopt them. In this study, it is intended to examine students' perception on their effort whenever they use OSN. Henceforth, the following is the second hypothesis of this study:

Hypothesis 2:

Students' Effort Expectancy (SEE) is positively related to Students' Behaviour Intention (SBI).

1.8.3 Hypothesis 3

Social Influence (SI) has been defined in earlier research as the extent of user's perception that others believe that the user must adopt the new system (Venkatesh et al., 2003). Arif, Aslam, and Ali (2016) defined SI as when family members, peers, and influencers like artists and/or celebrities encourage a person to use the system. As human beings need to live in communities, the impact from friends, family, or relatives generates significant effects on behavioural change (Hsu and Lee, 2013). People mostly use social networking websites due to the influence of their friends, and the total average of people who uses online social networking websites is due to their friends' influence (Chao, 2019).

Various results of social influence effect on the intentions to use technology have been reported. The study by Teo and Zhou (2014) showed no direct effect and Wong, Teo, and Russo (2013) reported a non-significant result. Meanwhile, Teo and Milutinovic (2015), and Alkhunaizan and Love (2012) reported a significant effect between social influence and intention to use the technology. Besides that, another study showed that social influence is a significant predictor of internet system adoption and usage behaviour (e.g., Masrek et al., 2008; Masrek, 2015).

However, there are studies which indicate that the relationship between social influence and intention to use technology is not significant. Among the results of previous studies which showed that social influence did not have a significant effect on students' intention to use the system are research by Bellaaj et al. (2015), Milošević et al. (2015), and Thongsri (2018). The social influence in their research was mainly from lecturers. Therefore, the following hypothesis is established:

Hypothesis 3:

Students' Social Influence (SSI) is positively related to Students' Behaviour Intention (SBI).

1.8.4 Hypothesis 4

The usage of Facilitating Condition was applied to gauge the OSN experience which can be explained as accessing, supporting, and facilitating services while managing the individual's own OSN activities (Mazman, 2010). In a separate study, Arteaga Sánchez et al. (2014) defined Facilitating Condition as the degree to which an individual believes that there exists an appropriate environmental and technical infrastructure to support the use of the OSN.

There are many researchers who found a positive significant relationship between Facilitating Condition and IT system use (Magsamen-Conrad et al., 2015; Lallmahammed et al., 2013; Chang et al., 2007; Im, Hong, and Kang, 2011; Kijisanayotin, Pannarunothai and Speedie, 2009; Lin and Anol, 2008; Pai and Tu, 2011; Venkatesh et al., 2003; Venkatesh et al., 2008; Wang and Shih, 2009; Zhou et al., 2010; Šumak et al., 2010; Teo and Milutinovic, 2015). However, some studies reported that facilitating conditions have indirect (Teo and Zhou, 2014; Teo, 2009) and insignificant (Wong, Goh, and Rahmat, 2013; Teo et al., 2008; Ngai et al., 2007) relationships with IT system use. In this study, the students indicated who influenced them to use OSN and the individual or group of people that supported the students to use OSN. Hence, this study hypothesizes that:

Hypothesis 4:

Students' Facilitating Conditions (SFC) are positively related to Students' Behaviour Intention (SBI).

1.8.5 Hypothesis 5

Behavioural Intention is the tendency of behaviour to keep using OSN and it is an important factor in determining the use of OSN and its acceptance by users (Luarn & Lin, 2005). Meanwhile Use behaviour is the habit of a person to use OSN (Handoko, 2019). Rachmawati et al. (2020) defined use behaviour as the intensity or frequency of users using OSN. Use behaviour is influenced by behavioural intention and

facilitating conditions and the real conditions for using OSN (Jackson et al., 2010). Hence, this study hypothesizes that:

Hypothesis 5:

Students Behaviour Intention (SBI) is positively related to Students' Use Behaviour (SUB)

1.8.6 Hypothesis 6

Academic performance as defined by Loo and Choy (2013) is how students manage their studies when they are handed and assigned with a few different tasks from their teacher. It is how they handle and accomplish them. Salvation and Adharudin (2014) explained that among the determinants of students' academic performance are their ability to remember facts and communicate it orally or through writing, besides other criteria like personality and level of intelligence. Previously, Quenemoen et al. (2003) emphasised that measuring academic performance determines how well students have met their educational objectives. Exams or ongoing assessments are routinely used to assess it.

Over the years, researchers and educators alike have become interested in the effects of OSN on student academic performance. Hence, there are many empirical studies that have explored this topic. The results of the research are positive, negative or neutral (Cheston et al., 2013; Glogocheski, 2015). Several studies have shown that there is a positive and negative correlation between OSN and academic performance (Marwick and Boyd, 2014). A study by Othman et al. (2017) in Terengganu, Malaysia indicated that the result between the usage of OSN and academic performance is negative. Zahid et al. (2016) did a study to determine the effect of the growing use of OSN on the academic performance of students at universities and colleges. The results showed that the effect of OSN can be positive. From the access to academic literature focusing on the use of OSN and academic, more discussions on this topic will be covered in the next chapter. With this note, the last hypothesis of this study is stated as follows:

Hypothesis 6:

Students' Use Behaviour (SUB) is positively related to students' Academic Performance (ACADEMIC).

1.9 Definition of Terms

A conceptual definition is used to define variables, terms or objects, and the researcher needs it to determine the existence, duration, and quantity of validation tests in their study (Sevilla et al., 1992). In simple words, the conceptual definitions specify terms within the scope or context of the research study. Table 1.1 shows the conceptual definitions of the variables employed in this study.

Table 1.1 Conceptual definitions of variables employed in the study

Variables	Conceptual Definition
OSN Time Spent	Daily amount of time spent on OSN
OSN Frequency	Daily frequency of students' logging in to OSN
OSN Activities	Daily frequency of students' use on OSN activities
Class Preparation	Daily amount of time spent by students in preparing for class
Performance Expectancy (PE)	The degree to which an individual believes that using the Information Technology (IT) system will help him or her to attain gains in their job performance. How the IT system is useful in accomplishing the given tasks and their perception whether or not the system helps them to accomplish tasks more quickly and increase their productivity.
Effort Expectancy (EE)	The degree of ease associated with the use of system. In EE, it examined the user perception on the ease of using the system or whether learning to operate the system is easy for the users and the interaction with the system would be clear and understandable.

Table 1.1 Conceptual definitions of variables employed in the study (continued)

Variables	Conceptual Definition
Social Influence (SI)	The degree to which an individual perceives that it is important others believe he or she should use the new system. SI checked on the people who influence the user behaviour to use the system and the individual or group of people that supported the use of the system.
Facilitating Condition (FC)	The degree to which an individual believes that an organisation and technical infrastructure exists to support use of the system. The variables check the facilitating conditions or the available resources that enable the user to use the system.
Students' Performance Expectancy (SPE)	The degree to which the students believe that using the OSN will help him or her to attain and gain in what they desire to achieve. Here we will be able to gauge the reasons why the students' intend to use OSN.
Students' Effort Expectancy (SEE)	The degree of ease associated with the use of system. It examined the students' perception on the ease of using the OSN. This variable is important because it can be used to check students' motivation or interest to use OSN.
Students' Social Influence (SSI)	The degree to which the students perceive that it is important others believe he or she should use the OSN. SSI checked on the people who influence the user behaviour to use OSN and the individual or group of people that support the students to use OSN.
Students' Facilitating Condition (SFC)	SFC checks the facilitating conditions or the available resources that enable the students to use OSN. Whether they have personal computers at home or not is one of the identified items included in the questionnaire.
Students' Use Behaviour (SUB)	How students use OSN based on the time spent, frequency of log in, and frequency of students' OSN activities
Students' Use Implication (SFC)	Implication of OSN use on students' academic performance

1.10 Thesis Outline

The chapter begins with the introduction to the research whereby it first highlights the problems that have been identified for the need of this research to be conducted. The significance of this study is emphasised before stating the scope of the research. Research questions and research objectives are listed down. Thereafter, the conceptual framework for this study is shown with the definition of the terms used in this study.

The literature review starts by looking into the definition of Online Social Networking (OSN) on the internet while previous research of OSN usage behaviour and OSN sites are elaborated. Then the researcher covers past studies on OSN and education, OSN and academic performance, and OSN studies on students in Malaysia. The literature on the motives of students using OSN are also explained. Previous framework or models related to the research, gap of the research and proposed theoretical framework model - Unified Theory of Acceptance and Use of Technology for Students (UTAUTs) are introduced in the last part of this chapter.

The chapter on Research Methodology begins with an overview of the Research Design used for this research. Then, the method employed in the research, operational research framework, population and sampling, and research instrument are explained in detail. Thereafter is a discussion on the focus group process that had been conducted for this study. Next, the data collection method, pilot study process and step-by-step reliability analysis for this research are explained. This chapter also explains how the actual study was conducted and the data analysis and statistical technique used for the study.

The result and discussion on the findings of this study begins with the descriptive data analysis findings. The first part is the demographic background of the respondents, before looking into the results of OSN usage behaviour. Thereafter, the central tendencies measurement of constructs of this study are highlighted.

The next part after the descriptive data analysis in Chapter 5 would be model validation. The study must conduct both validity and reliability tests to verify that the measurement tool used via the framework model chosen for this study is cogency and performing consistently well. This chapter explains comprehensively the steps involved in the validity and reliability tests to verify the measurement tool for every construct involved in this research study.

The second last part of this study is a discussion on the major findings of this research which provide further scrutiny on these major findings, precisely in the sense of its objectives and a discussion on the hypotheses. The last part of this study discusses the achievement of the research objectives, the limitations of the study, and recommendations for future research.

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LIST OF PUBLICATIONS

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1. **Masrom, Maslin** and Usat, Selisa (2013) Effect of Online Social Networking on High School Students Academic Performance. *IPN Conferences Langkawi, Malaysia*, 03-05 December 2019. **(Indexed by SCOPUS)**

Non-Indexed Conference Proceedings

1. **Masrom, Maslin** and Usat, Selisa (2013) *Understanding students' behaviour on the use of online social networking*. In: 4th International Conference on Computing and Informatics (ICOCI 2013), 28-30 August 2013, Kuching, Sarawak, Malaysia.
2. **Masrom, Maslin** and Jimpele Ambau and Selisa Usat (2015) *Understanding the Online Social Networking Behaviour and influence towards academic performance: an exploration of the literature*. In: ICHCKM 2015, 11-12 Feb 2015, Indonesia.