

**ADVENT OF THE NEW MEDIA:
THE INFLUENCE OF INTRINSIC AND EXTRINSIC MOTIVATION
IN ONLINE PHOTO SHARING BEHAVIOURS ON FACEBOOK
AMONG YOUNG MALAYSIAN ADULTS**

By

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ABSTRACT

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Ruth Wan Ching Lee

Social networking sites have become an important channel of communication in people's daily lives. Users in online social networks constantly communicate with each other through knowledge sharing and artifact sharing and these are essential for the viability and success of online social networking sites. Online photo sharing, a type of artifact sharing on Facebook has also grown in popularity. Thus, the purpose of this research is to study the relationship of intrinsic and extrinsic motivations in online photo sharing behaviours on Facebook. Online photo sharing on Facebook has also led to negative implications hence the study will also examine privacy concerns regarding online photo sharing. Thus far, a study on the combined motivational factors for online photo sharing behaviours, coupled with privacy concerns has not been done in the context of Malaysian Facebook users. A non-random purposive sampling approach gathered a total of 422 young Malaysian adults aged 18 to 34. Data was collected via a web based questionnaire distributed on Facebook. The results show that intrinsic and extrinsic motivations have positive correlations with online photo sharing behaviours on Facebook. Intrinsic motivations showed a stronger connection

to online photo sharing behaviours. There was no significance found between privacy concerns and online photo sharing behaviours on Facebook. There was also no difference between genders in their online photo sharing behaviours. However, males showed higher privacy concerns in regards to online photo sharing on Facebook. Future research and implications for theory and practice are also present. Researches, practitioners, and designers of such online communities may benefit from understanding the dynamics of such online sharing behaviours and use this data to provide a more user-centric and user-friendly environment to motivate online photo sharing behaviours. Improving the privacy configurations of such online systems to continue to provide a safe online environment for online sharing is important.

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Ruth Wan Ching Lee

APPROVAL SHEET

This dissertation/thesis entitled “**ADVENT OF THE NEW MEDIA:
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Yours truly,

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DECLARATION

I, Ruth Wan Ching Lee hereby declare that the dissertation is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.

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Date: 20 June 2016

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LIST OF ABBREVIATIONS

KSB	Knowledge Sharing Behaviours scale
IMDB	Internet Movie Database (Website)
MCMC	Malaysian Communications and Multimedia Commission
SNS	Social Networking sites
SPSS	Statistical Package for the Social Sciences
U.S	United States of America

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CHAPTER 1

INTRODUCTION

This dissertation consists of six chapters – introduction, literature review, method, results, discussion and conclusion. This chapter focuses on the research’s background, problem statement, significance of study, objective of study, research questions, hypothesis, theoretical and conceptual framework, and the operational definition of terms used in this study.

1.1 New Media: Social Media

In the recent decades, the new media has become an important and significant channel of communication in modern society. New media is defined as “digital media by virtue of the fact that media which previously existed in discrete analogue forms now converge into unifying form of digital data.” (Lister, 2009). People have the ability to access a variety of information from the Internet at any given time or space on any digital device such as a computer desktop, a laptop, tablet, or even a smartphone. On the contrary, old media does not involve the internet or any kind of digital form of communication such as books, newspaper etc. With the old media, people could only access information through that particular medium such reading a book or reading the newspaper.

With the ever changing dimensions of communication and media technology, the emergence of these new trends and new forms of media influences, impacts and changes the way people think, communicate, and behave (Narula, 2006). The dynamic evolution of media has brought on a change of the way people communicate by moving from traditional media channels to channels of the new media; and evolving communication modes of non-verbal, verbal, and written communication from face-to-face to human computer interaction (Narula, 2006). The emergence and the increasing dependency of the new media in people's lives has shifted the role and influenced the way people are using the media in their everyday life (Baran & Davis, 2006). More and more people are relying on new media technologies on a daily basis to communicate and maintain social bonds with each other such as through personal emails, online chatting, and online social media such as online social networking sites (SNS).

In fact, in the local arena, students in Malaysia are well exposed to Web 2.0 applications and are comfortable to use them for learning purposes. These students mainly use the internet to find information from websites, download notes and to communicate with friends (Zakara, Watson, & Edwards, 2010; Muniandy, 2010). Judd and Kennedy (2010) also found that majority of students in Malaysia heavily depended on the internet to look for information and for communicating purposes. It seems that using the internet has become a significant and seemingly permanent part of the students' culture, lifestyle and learning (Danyaro, Jaafar, De Lara, & Downe, 2010).

Social media, in particular social networking sites have gained tremendous popularity around the world over the past few years (ComScore, 2011; Mustafa & Hamzah, 2011). Social Networking Sites (SNS) is defined as a web-based service that allows individuals to construct a public or semi-public profile within a bounded system, share a connection with other users, view and traverse their list of connections and also those made by others within that bounded system (Boyd & Ellison, 2007).

A more recent definition by Jackson and Wang (2013) is that SNS consists of a representation of each user (often called a profile), their social links, and a variety of additional series. Most SNS are web-based and provide a means for users to interact over the internet, such as postings, e-mail and instant messaging. SNS may contain category places (such as school year), a means to connect with friends (usually with self-description pages) and a recommendation system linked to trust, (p. 911)

With online social networking sites not only allowing global connectivity and limitless physical boundaries; the inversion of the traditional way content has been generated and consumed is taking place so people can easily express themselves, connect and communicate with others in their respective online social networks through the sharing of personal information and content. From what used to be done by a relatively few key people and organizations to produce and distribute content such as photography,

information, news or encyclopaedic knowledge for public consumption, is now completely reversed. Anyone with access to the internet can easily create and share personalized content such as blogs, news, videos, music, photos, etc, to the masses through channels such as Flickr, YouTube, Wikipedia, Facebook and other similar online sites without any constrictions (Huberman, Romero, & Wu, 2008).

1.1.1 Online sharing in social networking sites. With the popularity of sharing personal content online, Koh, Kim, Butler, and Bock (2007) emphasized that sharing with each other in an online environment is essential for the viability as well as the success of online communities such as online social networking sites, and they are often determined, measured and sustained by users' active participation. Nov, Naaman, and Ye (2009) separated sharing into two distinct forms: the first, knowledge sharing, and the latter, artifact sharing. Knowledge sharing, in which it emphasizes on information or knowledge that is written with the intention to share it on one's network has been widely studied, especially in areas pertaining to online communities. The latter, artifact sharing focuses on the sharing of personal content such as photos and videos, in which the act of sharing content such as these is separate from the act of content creation such as capturing the photos itself or videotaping content. People may have captured the photos and videos for different reasons, and later may decide to use the photos and videos on their online social networking site for completely different reasons.

This study will look at the online social networking site called Facebook. Facebook began as niche Social Networking Site in 2004 but later became a worldwide phenomenon that is still gaining popularity around the world. To date, Facebook is available to anyone with a valid email address. Facebook brings to light that Facebook's primary goal is to facilitate connections and communications between the online users with their online social network. Keeping with this online social networking site's mission, Facebook states that its main principle and purpose is to give people the freedom to connect and share anything to anyone, anyhow, as long as both consent to the connection. In other words, Facebook's primary purpose is to help people connect to others, help people feel connected, and to keep people connected.

Facebook has been proclaimed to be the most popular social network and have surpassed the 1 billion mark of users worldwide as of March 2015 (Statista, 2015a). Facebook remains as a fore runner in the online social network sphere, 2.5 billion pieces of information and more than 500 terabytes are processed each day and users are clicking the 'Like' 2.7 billion times and share 300 million photographs per day (Facebook, 2013). Overall, 71% of internet users are on Facebook according to the U.S social media 2014 report (Pew Research Center, 2015). The social media 2014 report showed that the U.S population of Facebook users also continues to actively engage with the social networking site with 70% of them using the site daily (in which 45% of Facebook users do so several times a day). Moreover, 65% of Facebook users

frequently or sometimes share, post or comment on Facebook rather than being passive observers (Pew Research Center, 2015).

In the local arena, Facebook also remains the most preferred Social Networking Site in Malaysia for social utility and content sharing, in which the country has picked up this wave and is listed as the top eight in Asian countries with the top Facebook users, with a penetration of 56% (Statista, 2015b). The Malaysian Communications and Multimedia Commission, MCMC (2013) as cited in Mustafa (2014) reported that out of the 19.2 million internet users in Malaysia, 15.6 million of users are members of Facebook, and three out of five hours are spent on social media daily. Results from Mustafa and Hamzah's (2011) study on online social networking in Malaysia showed that in line with the global phenomenon and statistics, Facebook is the most popular social networking site in Malaysia.

1.1.2 Online photo sharing in Facebook. Some of the features of the 2015 Facebook version are such as the newsfeed, chat, wall posts, status updates, sharing of notes, links and videos, sharing photos, interacting in online game platforms, creating and communicating in groups and event pages, and even using the recent addition of the hashtag feature to follow similar topics of conversation and content sharing. Users can communicate with each other via looking, sharing (posting), commenting or even "liking" each other's content. Some of most common activities done on Facebook are

reading the news feed, reading comments or posts on their own walls, browsing their friend's walls, and posting or commenting on other's walls (Papacharissi & Mendelson, 2011; Pempek, Yermolayeva, & Calvert, 2009; Subrahmanyan, Reich, Waechter, & Espinoza, 2008).

Online photo-sharing is a unique form of content sharing called artifact-sharing. In general, online photo sharing services are defined as a place that allows users to upload, organize and share their digital photos with other users (Marlow, Naaman, Boyd, & Davis, 2006). Users on such online social networking sites are able to share their digital photos online for private or public viewing, and are able to post, edit, manage and share photos with their online communities. It allows users to create virtual photo albums in which users can upload, organize, share, tag and even like each other's photos. The auto detect function enables users to easily tag others and themselves when uploading photos. Privacy settings are also available to be customized at the users' discretion. Online photo sharing has been identified as one of the most used features (Joinson, 2008). Online photo sharing is one of the top applications used on Facebook and has increased by more than a 100%, with more than 2.5 billion photo sharing each month (ComScore, 2011). Especially in Malaysia itself, photo sharing on Facebook is also growing rapidly compared to developed countries that are more conservative and private; a high of 88% of Malaysian online consumers uploads their photos on social networks such as Facebook (TNS, 2010). Prior research has also identified online photo sharing on Facebook as the most used site for online photo

sharing in which users enjoy sharing, looking, tagging and commenting on online photos (Papacharissi & Mendelson, 2011; Pempek et al., 2009; Subrahmanyam et al., 2008). It is also one of the favourite and most popular sites Malaysians have been using to share their online photos (ComScore, 2011; Mustafa & Hamzah., 2011; Social Bakers, 2013 TNS, 2010).

1.1.3 Users of Facebook. In terms of who is using Facebook the most, global statistics shows that the majority of Facebook users worldwide are young adult users in the age group of 18 to 34 years old. Malaysian Facebook statistics also show that a whopping 65.3% of Facebook users are young adults ranging from 18 to 34 years old (Socialbakers, 2013). Joinson (2008) study on motives and users of Facebook revealed that users younger in age tend to posts more photos on Facebook. This age group, young adults aged 18 to 34, are the ones who are the heaviest users and perhaps relies highly on their social networks in their daily lives to communicate with others and to express themselves.

Several previous researchers have found that online photo sharing on Facebook plays a significant part of users' Facebook usage habits. Papacharissi and Mendelson's (2011) study on Facebook also indicated that 60 percent of the students reported to have 51 or more photos in their online photo albums on Facebook. Nosko, Wood, and Molema (2010), in their research on self-disclosure on Facebook, noted that some of the most

consistently provided pieces of information (available on 63% or more of the profiles) included profile pictures and photos besides other information. Hum et al. (2011) examined Facebook users' profile photographs and noted that users' profile picture album contained 20 or more images in attempted to construct their online identity, thus providing multiple identity clues to other Facebook users. Mendelson and Papacharisi (2010) study in college student's Facebook photos analysed the different types of photos shared on Facebook.

1.1.4 Motivations in online sharing behaviours. In various studies on online sharing behaviours, theories such as the motivation theory of self-determination, the social exchange, the social capital, and the social cognitive theories were drawn on to help explain individuals' motivations to share. Researchers have found that intrinsic and extrinsic motivations both act as a crucial determinant in why users share information and content with one another on their online social networks. These motivations play a crucial role in determining users' online sharing behaviours such as knowledge sharing and artifact sharing in online networking sites.

Intrinsic motivations, such as enjoying the act of sharing was deemed as a primary reason to contribute content in social networking sites (Acquiti & Gross, 2006; Lakhani & Wolf, 2005; Nov & Ye, 2009; Roberts, Walton, & Viechtbauer, 2006). The intrinsic motivations of commitment was also a strong motivation to share content and information with one another in online

social networks (Ames & Naaman, 2007; Lakhani & Von Hippel, 2003, Wasko & Faraj, 2005; Nov et al., 2009). On the other side of the spectrum, extrinsic motivations also showed great potential to be a strong motivator for the sharing of content such as self-improvement and also receiving feedback (Lakhani & Von Hippel, 2003; Lakhani & Wolf, 2005; Nov & Ye, 2009; Nov, Naaman, & Ye, 2010; Oreg & Nov, 2008). People were also extrinsically motivated to contribute content to enhance their professional status and reputation and were strong factors for active participation in online networking sites (Lakhani & Wolf, 2005; Nov & Ye, 2009; Wasko & Faraj, 2005). Studies also showed that the extrinsic motivation of reciprocity had a significant and positive effect on knowledge sharing in social networking sites (Chang & Chuang, 2011), as well as artifact sharing on the social networking site such as YouTube (Huberman et al., 2008).

Thus, the sharing of personal content online, especially artifact sharing such as photos is becoming increasingly popular and has taken on an exponential growth. At this juncture, one of the key questions that this research seeks to investigate is whether both intrinsic and extrinsic motivations are what motivates netizens to be so heavily invested in such online sharing behaviours.

1.1.5 Privacy concerns in online photo sharing. In addition to the study of intrinsic and extrinsic motivations as viable factors that motivate

users online photo sharing behaviours, this study also seeks to investigate the area of the privacy concerns of users and if their privacy concerns affect their online photo sharing behaviour on Facebook.

The increase of online photo sharing on Facebook has exponentially grown with the negative implications that come with online photo sharing over the years internationally and locally. Privacy concern is a huge concern as the prevalence of photo sharing on Facebook has led to many negative implications such as damaged reputation (DiBranco, 2010; Express News Service, 2013; Pilkington, 2007), disciplinary action, or even dismissal from jobs (Downey, 2009; Fox News, 2009; Mandak, 2010; Scott, 2010), as well as advertisers taking advantage of such accessibility by using users' photos as advertisements without prior consent (CNN, 2009; Nakashima, 2007). Moreover, it is with great concern as Malaysians are avid Facebookers with a large number of friends and long hours of usage (The Star Online, 2011). Malaysian social media users are being criticized for being notorious for adding just about anyone as a friend and in the recent years, more than 400 cases on Facebook, regarding breached privacy and mostly involving photos, were reported in Malaysia (The Star Online, 2011).

Privacy settings on Facebook can be customized at the users' discretion and they can opt to reveal their information to the public, or limit their information to a narrower range such as to friends, acquaintances, closer

friends, family or even a custom selection of friends. What more, they can micro manage by changing their privacy setting with every post or with every photo that they share on Facebook. Although Facebook's implemented privacy controls allows users to specify exactly what information they wish to keep private or public, previous research have indicated that users are not bothered to control these setting despite being concerned over privacy issues. Prior studies also noted that also noted that there was a contradiction between users perceived privacy and behaviours as users stated that they were concern over their online privacy, however, they did not make effort to configure the privacy settings (Ahem et al. (2007); Debatin, Lovejoy, Horn, & Hughes, 2009). In terms of gender differences, it was reported that although women had higher privacy concerns, they were still more likely to share information with others online (Acquisti & Gross, 2006; Fogel & Nehmad, 2009).

Thus, although Facebook provides a way for users to control of how much information they want to reveal and to whom, Facebook users seemed to be undeterred by their privacy concerns and the potential negative risk and still share their photos on their online social network regardless. Thus, this study also aims to explore if Malaysians Facebook users' privacy concerns affect their online photo sharing behaviour.

1.2 Problem Statement

The sharing of online photos is becoming increasingly popular and has taken on an exponential growth pathway. A key question would be what motivates Malaysian netizens to be so heavily invested in such online sharing behaviours. Sharing photos online is one of the most popular activities on Facebook (Pempek et al., 2009; Subrahmanyam et al., 2008; TNS, 2010), and has proven to be growing rapidly among Malaysian Facebook users (ComScore, 2011; Mustafa & Hamzah., 2011; Socialbakers, 2013; TNS, 2010). Although Flickr is a popular photo sharing social network, Flickr users are highly concentrated in the United States where else in the local context of Malaysia, user participation in the Flickr community is relatively low compared to Facebook. Thus far, there is no published research on what motivates users to share their photos on Facebook. Prior research have been mainly focused on general Facebook use (Nosko et al., 2010), limited aspects of online photo sharing on Facebook (Hum et al., 2010), as well as online photo sharing on other social networks (Nov et al., 2009). Moreover, different social networks also caters to different types of users, as well as different types of users could be present and hence may vary in result findings (Miller & Edwards, 2007; Nov et al., 2009; Prieur, Cardon, Beuscart, Pissard, & Pons, 2008; Van House, 2007). Although intrinsic and extrinsic motivations were found to play a significant role in artifact sharing behaviours, specifically online photo sharing behaviours, research has been limited to certain aspect of motivations and has so far only focused on a single online community on Flickr in the United States (Nov & Ye, 2009; Nov et al., 2009). Flickr would not be appropriate to study it as it is not popularly used as a social networking

site for online photo sharing compared to Facebook that has a high of 87.9% of Malaysian Facebook users (ComScore, 2011).

The same results from other studies may not be applicable to other countries such as Malaysia as geographical and cultural differences may result in different findings. Kim, Sohn, and Choi's (2011) discovered that the different cultures in United States and Korean students resulted in different reasons, motivations, and usage patterns in their social networking behaviours and usage. Boyd and Ellison (2007) also noted that there is a limited understanding of who is and who is not using these sites, why, and for what purposes, especially outside the United States (Boyd & Ellison, 2007). Corresponding to that, indeed, limited research has also been done in Asian countries, let alone in Malaysian context. Thus, the lack of data regarding online photo sharing behaviors on Facebook in the local arena of the Malaysian online sphere provides an opportunity to further explore and to contribute new information to this area of study.

Also, no study has looked at this particular combination of motivations factors introduced in this research in regards to online photo sharing on Facebook. Previous studies have shown that motivational factors such as intrinsic motivations of enjoyment and commitment; as well as the extrinsic motivations of self-development, and reputation, and reciprocity have shown to be positively correlated to online sharing behaviours (Wasko & Faraj, 2005;

Nov et al., 2009). The motivational factors have not only been done in various online communities such as free open source software communities, online communities that focus on knowledge sharing (Wasko & Faraj, 2005); but also in artifact sharing online communities such as Flickr (Nov et al., 2009) and YouTube (Huberman et al., 2008). However, so far, no studies have applied these combinations of motivational factors to the online community of Facebook that is becoming exceedingly popular, especially in the local context of Malaysia. Moreover, prior studies have suggested that results may differ due to the different nature and function of various online communities and results cannot be generalized based on a single online community. Thus, this study aims to study the combination of motivational factors such as the intrinsic and extrinsic motivational factors in the context of Malaysian Facebook photo sharing behaviours.

Young adults within the age group of 18 to 34 are examined as they are the ones who are the heaviest users and perhaps rely highly on their social networks in their daily lives to communicate with others and to express themselves as prior statistics and researches have shown (Ellison, Steinfield, & Lampe, 2007; Joinson, 2008; Papacharissi & Mendelson, 2011; Pempek et al., 2009; Ross et al., 2009; Sheldon, 2008; Socialbakers, 2013; Subrahmanyam et al., 2008; Urista, Dong, & Day, 2009; Tokunaga, 2010). Users within this age group are also known to be active users for photo sharing on Facebook (Hum et al., 2010; Papacharissi & Mendelson, 2011; Mendelson & Papacharissi, 2010; Pempek et al., 2009; Subrahmanyam et al., 2008).

With the increasing use and dependency of the internet and the social media in everyday life, users are frequently providing information about themselves and this comes with a great cost on users' privacy, leading to more acute and pronounced privacy concerns. Moreover, the popularity of online photo sharing on Facebook has also led to negative implications related to posting photos on Facebook in the recent years. The recent spate of incidences where Facebook content, typically of a photographic nature, has led to negative consequences (The Star Online, 2011). However, researches have indicated that people's attitudes and concerns about their privacy do not tally with their actions (Debatin et al., 2009). Thus, it is important to measure if users' privacy concern affect their online sharing behaviour, in this present study, their online photo sharing behaviour.

Thus this study is important to address what motivates Malaysian young adults to be so heavily invested in such online sharing behaviours on Facebook. Moreover, it is important to focus on online photo sharing as previous researches on Facebook and online photo sharing are limited, giving rise to gap in information pertaining to such behaviours, especially in the Malaysian context. Cultural differences from Western countries such as the US compared to the Asian context also poses an information gap, given that results could differ due to culture, and there is a limited understanding of users and its purposes outside of the US. Moreover, the combination of intrinsic and

extrinsic motivational factors regarding the online photo sharing on Facebook has yet to be explored, increasing the necessity to enhance the knowledge and information in this area. Although the threat to one's online privacy has become more pronounced over the years, yet the usage of SNS are still on the rise and prior research shows a contradiction in online privacy concern and behaviour. Thus, it is essential to understand what makes users tick as well as their online privacy concern in their online photo sharing behaviour.

1.3 Significance of Study

The sharing of photos on Facebook in Malaysia is becoming increasingly popular. This research seeks to investigate if intrinsic and extrinsic motivations are what motivates Facebook users to be so heavily invested in such online sharing behaviours. This study is significant as results will shed light on how Malaysian Facebook users are using Facebook to conduct online photo sharing activities as well as the motivations behind such sharing behaviours. As limited researches have been done in the context of Malaysian online photo sharing on Facebook, this study will close the gap and provide valuable knowledge in this area in the Malaysian context. Moreover, this study will further enrich the data from previous researches on intrinsic and extrinsic motivations, as well as providing new knowledge and understanding.

The increase of online photo sharing on Facebook has exponentially grown with the negative implications that come with online photo sharing, especially in Malaysia where users are actively using Facebook as a tool to share photos online. Negative consequences and breached privacy on their photos are not leading users to be more careful of their privacy settings or what they share online. Previous researches have also further showed that users' attitudes towards their privacy concern do not tally with their actions. Thus, this study will help shed light on users' privacy concern and their actions in their online photo sharing behaviours. With this valuable knowledge, researches, practitioners as well as designers of such online social networks can understand and create a user friendly online environment that encourages users to continue to share photo on their online social network but yet provide a safer and secure environment to do so without being exposed to unwanted risks and privacy invasions on the personal content shared.

1.4 Objective of Study

The primary purpose of this research aims to test the combination of motivational factors from previous research in online photo sharing behaviours on Facebook among Malaysian young adults' aged 18 to 34. The research aims to investigate the relationship between intrinsic and extrinsic motivations and online photo sharing behaviours on Facebook (Enjoyment, commitment, self-development, reputation and reciprocity). Moreover, the study will also examine privacy concerns and how it affects users' online

photo sharing on Facebook. Previous research has been done on the motivations behind online knowledge sharing (Wasko & Faraj 2005), however, there has been limited research on motivations behind online photo sharing, especially research pertaining to online photo sharing on Facebook. Prior studies on online knowledge sharing behaviours (Wasko & Faraj, 2005), artifact sharing behaviours (Nov et al., 2009), as well as relevant theories such as Motivations theory, social exchange theory, and social capital theory, has indicated that these motivational factors are viable factors that contribute to the motivations behind users' online photo sharing behaviours on online social networks such as Facebook. Thus far, a study on the combined motivational factors from both online photo and knowledge sharing behaviours has not been done.

The research intends to contribute new understanding, and also to enrich the data in this area of online photo sharing behaviours on Facebook in Malaysia. The research will also provide a conceptual framework that connects motivational factors to actual data collection from online photo sharing on Facebook in the Malaysian context. Moreover, the data contributed from this research will help to identify motivations underlying photo sharing on Facebook, and investigate users' online photo sharing behaviours in order to better understand what motivates them to continue to share their photos on Facebook. By adding new areas and dimensions of data, this research would shed light and give other researchers as well as practitioners a better understanding on how to generate a user-centric network as well as increase

and encourage more content sharing for the viability of the network. It will also help them in their decision to decide what precautions to undertake to ensure the safety and confidentiality of users who share such content in their online social networks.

1.5 Research Questions

Based on the research objectives mentioned above, these research questions need to be addressed:

1. What is the relationship between intrinsic motivations and online photo sharing behaviours on Facebook among young Malaysian adults?
2. What is the relationship between extrinsic motivations and online photo sharing behaviours on Facebook among young Malaysian adults?
3. Which motivational factors (Intrinsic or extrinsic motivations) are stronger in users' online photo sharing behaviour on Facebook among young Malaysian adults?

4. What is the relationship between online privacy concerns and online photo sharing behaviours on Facebook among young Malaysian adults?
5. Is there a gender difference among young Malaysian adults' online photo sharing behaviours on Facebook?
6. Is there a gender difference among young Malaysian adults' online privacy concern and online photo sharing behaviours on Facebook?

1.6 Hypotheses

Thus, the hypotheses are as follows:

H1: There is a significant relationship between intrinsic motivation and young Malaysian adults' online photo sharing behaviours on Facebook.

H2: There is a significant relationship between extrinsic motivation and young Malaysian adults' online photo sharing behaviours on Facebook.

H3: There is a significant difference in the relationship strength between intrinsic and extrinsic motivation in young Malaysian adults' online photo sharing behaviours on Facebook.

H4: There is a significant relationship between online privacy concern and young Malaysian adults' online photo sharing behaviours on Facebook.

H5: There is a significant gender difference in young Malaysian adults' online photo sharing behaviours on Facebook.

H6: There is a significant gender difference in young Malaysian adults' online privacy concern regarding online photo sharing behaviours on Facebook.

1.7 Operational Definitions

The following key concepts used in this research are operationalized below:

1.7.1 Social networking sites. Social Networking Sites (SNS) is defined as a web-based service that allows individuals to construct a public or semi-public profile within a bounded system, share a connection with other users, and view and traverse their list of connections and also those made by others within that bounded system (Boyd & Ellison, 2007).

1.7.2 Online sharing. Online knowledge sharing consist of a one fold content sharing in which the content is written with the sole intend to publish and share it on one's chosen online network, such as writing a blog post, sharing information in a forum, or writing a Wikipedia segment. In other words, the creation of content is tightly coupled with the intention to post or publish it (Nov et al., 2009). Online artifact sharing is classified as a twofold sharing whereby the act of contribution or sharing such as sharing photos online, is separate and distinct from the act of content creation such as the capturing of the photos itself (Nov et al., 2009). Take the examples of photographs and videos; the act of taking photographs in itself is one standalone part, the second part of sharing the photos on online networks is completely optional from its first act of creation; and thus each step may comprise of different motivations to create, and for the latter, different motivations to share with others.

1.7.3 Online photo sharing behaviour. Online photo sharing allows users to upload, organize and share their digital photos with other users in their online communities (Marlow et al., 2006). Facebook allows its users to share as many photos as they want online, and as frequent as they want through easy access on their Facebook photo albums in users' profile. Facebook also allows users and others post comments and to like photos shared with the user's online network. Online photos shared can consist of any variety or types such as individual photos, photos with others such as family and friends, events, landscapes, objects, and pets; as long as it consists of personal photographs

that the users themselves have a personal involvement in the creation and sharing of the photos. A variety of information can also be added with the photos shared such as the description of the photo, who the users were with, the location, date, time and as well as tagging their friends in the photo. Lastly, Facebook allows users to adjust their privacy setting and to customise who they want to share their photos with; to the public network, friends, friends except acquaintances, and custom settings to certain individuals or specific groups.

This study will focus on online artifact sharing in which only photos that users have a personal involvement in the creation of the photos and in which the user then shares with others online will be considered in the context of this study. Based on Chalfen's (1987) definition of photos, photos for public consumption or photos that can be viewed by any audience which consists of more than the picture-taker or user themselves will be the general guide for this research. Based on this, photos that are shared by the user through their Facebook photo albums to the public network, and also photos shared selectively with friends, friends except acquaintances, and even custom settings to certain individuals or specific groups will be relevant and valid for this research. Photos that are forwarded, or reposted and shared from other archives or websites that have not been personally created will not be used in this study. In this study, attributes of Facebook's online photo sharing behaviour will be considered are as follows: a) the frequency of online photos shared, b) the time spent sharing online photos, c) the amount of information

on online photos shared, d) the level of involvement in subsequent interactions of the online photos shared (comments and likes), e) the types of online photos shared (Houghton, Joinson, Caldwell, & Marder, 2013).

1.7.4 Motivations. According to Deci and Ryan (1985) motivations are defined as when a person is moved to do or take action towards something. Intrinsic motivation: Intrinsic motivation emphasizes inherent satisfactions rather than the separable consequences of the act such as the act being interesting or enjoyable (Ryan & Deci, 2000). Extrinsic motivation: Extrinsic motivations are instrumental and it represents and focuses on extrinsic rewards and expected benefits (Ryan & Deci, 2000).

1.7.5 Online privacy concern. Privacy refers to a person's right to to keep personal information out of others' hands is central to all concepts of privacy (Westin 1967). Online privacy can be defined as the controlled access to individual's online personal information.

1.8 Chapter Summary

Thus, foreseeing that Facebook usage is an essential part of today's society, and online photo sharing continues to increase in popularity, it is important to extend and expand this area of research. It is crucial to investigate

intrinsic and extrinsic motivations behind why Facebook users are engaging in online photo sharing. Understanding users' privacy concern in regards to sharing photos online is also important to better grasp why users' continuously and perhaps recklessly share their photos online in spite of the risks involved. Implications could prove to be extremely useful for the social networks' creators, practitioners and researches alike.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a comprehensive review of literature review in which several areas will be examined. The literature review will not only discuss the theories related to the study such as intrinsic and extrinsic motivations of the self-determination theory, social exchange theory and the social capital theory but also provide current and relevant literature review on online sharing and the motivations behind such online sharing and privacy concern. The research conceptual model will also discuss the factors that influence online photo sharing behaviours.

2.1 Motivations for Online Sharing

2.1.1 Introduction. Online social networking sites allows individuals to not only easily meet up, connect, interact, share content and information with people in their networks and with those who have common interests but people are also using such online social networking sites to satisfy their need to generate their own content (Song, LaRose, Eastin, & Lin, 2004). With the power of the web, content creation that was once generated by professionals can now be produced by anyone in the form of photos, blogs, news, videos,

music and can be shared freely on online networking sites like Flickr, YouTube, and Wikipedia. Koh and colleagues (2007) further emphasized that the creation and sharing of content with each other is essential for any successful online community in online social networks. In fact, the viability and successful continuation of use in such online networks are often determined, measured and sustained by users' active participation and content contribution and sharing (Burke, Marlow, & Lento, 2009). In online social networks, the creation and sharing of content is completely dependent on its creation by the users themselves (Nov et al., 2009), thus, without user content sharing, it would be meaningless to be a member of such online sites as there would be nothing to look at, do, or respond to. In fact, in line with this research on online sharing and motivations, Facebook as a company actually encourages online sharing such as photos and videos because their software algorithm treats such materials as rich media and they can reach a bigger number of users and also attract the users' attention, being more visible in the newsfeed. This provides a platform that motivates users intrinsically and extrinsically for continuous online sharing.

In these recent years, popularity of these online social networking sites are very much integrated into people's daily life to share information and interact with one another. Nov and colleagues (2009) noted the two distinct forms in online sharing, namely, knowledge sharing which consist of a one fold sharing that is generated with the intention for it to be published and shared in one's online network; the second form of sharing which is called a

twofold artifact sharing, whereby the act of sharing is separate and distinct from the act of content creation. For the one fold knowledge sharing, generating and sharing content such as writing a blog post, sharing information in a forum, writing a Wikipedia segment or even sharing information about one's self are examples of knowledge sharing. In other words, the generation of the content is tightly coupled with the intention to share or publish. On the other hand, photographs and videos are examples of the twofold artifact sharing in which the act of taking photographs in itself can stand alone and the second part of sharing the photos in one's online network is completely optional from its first act of content creation. Thus, users may have completely different reasons to capture or create content and for the latter, different reasons to share them online with others in their online social networks.

Researches have not only looked at who and how users are using such online networks but have also turned their attention to understand the motivations behind online sharing. Previous researchers who have investigated online content sharing in online networks have looked at various motivational factors that play crucial roles in determining users' online sharing behaviours such as in Wikipedia (Nov, 2007), open softwares and virtual communities (Bock & Kim, 2002; Lakhani & Wolf, 2005; Oreg & Nov, 2008; Wasko & Faraj, 2005), Flickr (Ahern et al., 2007; Ames & Naaman, 2007; Nov et al., 2009; Nov & Ye, 2009; Nov et al, 2010), You Tube (Huberman et al., 2008) and Facebook (Burke et al., 2009; Lampel & Bhalla, 2007).

Moreover, researchers from prior studies related to online sharing behaviours have utilized many theories to help develop the understanding and evidence of what drives online sharing behaviours. Theories such as the self-determination theory of motivation, social exchange theory and the social capital theory have been used to explain the factors that influence individuals' motivations to share with others in their online networks. These theories in particular all rely on intrinsic and extrinsic motivators as key contributors to online sharing behaviours in a variety of online networks. Thus, this study aims to use a combination of variables supported by these theories that have been shown to have positive correlation to online sharing behaviours.

Based on the theoretical perspectives discussed above, the review of literature for the following sections draws insights from previous studies to discuss intrinsic and extrinsic motivations that have found to be associated with online sharing behaviours such as knowledge sharing as well as online photo sharing behaviours.

2.1.2 Intrinsic motivation and online sharing. Previous research has looked into intrinsic motivations such as enjoyment and commitment as a viable factor that encourages users' to continue to share content such as knowledge and artifacts (photos, videos) with their online communities. As defined in the self-determination theory, enjoyment is an intrinsic motivation

that occurs when individuals feel a sense of satisfaction and enjoyment in doing the activity itself rather than doing the action for obtaining a separable outcome of rewards or benefits (Deci & Ryan, 1985; Ryan & Deci, 2000). The enjoyment of doing the activity itself is the reward. In previous research, the intrinsic motivation of enjoyment was found to have a positive correlation with online sharing behaviours in one's online community. Commitment is defined as a perceived obligation an individual has to participate with each other in one's network (Coleman, 1990). Prior research on motivations behind online sharing behaviours has also placed commitment as an intrinsic motivation for individuals to share content within their social networks.

Lakhani and Wolf's (2005) study on motivations behind contributing content in a free open source software stated that intrinsic motivation played a more important role to motivate users to contribute content such as writing codes for IT programmes projects compared to extrinsic motivation. Data was collected through an online survey, in which a total of 684 respondents that were mainly IT professionals from 287 different projects were collected. Results showed that enjoyment-based intrinsic motivation was the strongest motivator for users to creatively contribute in the open software project. Users enjoyed the intellectual stimulation derived from writing and sharing codes in the open source software. Although commitment was not the strongest motivator to share content, users were also noted to contribute because of their obligation to their online community and were committed to give back to the free open software community in return for the software tools the software

provides. Commitment used in this current study is similar to obligation in which users who are more committed to one's online community would feel the need to share with their online community.

Similarly, in a study that looked into an online social network called Facebook, Acquiti and Gross' (2006) study among 294 participants, mainly students, noted that Facebook users were strongly motivated to share with one another because of the enjoyment factor in which they enjoyed having fun when sharing information with others in their online social networking site. Supporting literature that also noted a positive association with intrinsic motivation was Nov's (2007) study. Nov (2007) studied the motivations behind Wikipedians contribution on Wikipedia, a knowledge sharing online website. Wikipedians who shared knowledge and contributed to the online website volunteered their time and knowledge with no monetary reward. Nov investigated what motivates them to continually contribute via an online survey in which 151 valid respondents were recorded. Fun, or in other words, enjoyment, was found to be one of the top motivations for contribution, showing positive correlation with contribution level. In other words, people who found contributing on Wikipedia as an enjoyment resulted in them having spending more time contributing.

Intrinsic motivations were also viable factors in an artifact sharing online community called Flickr that focuses on online photo sharing. Several

studies focused on individual motivations and network structures behind online photo sharing in Flickr (Nov et al., 2009; Nov et al., 2010; Nov & Ye, 2009). The data collected through survey as well as the system data offered insightful information and positive correlations between users' individual motivations and with the quantity (Nov et al., 2009) and quality (Nov & Ye, 2009), as well as meta information such as tags (Nov et al., 2010) on the online photos shared with others on Flickr. The motivation of enjoyment of sharing online photos was also found to be significantly related to the quality of the photos shared. Nov and colleagues (2009) found that intrinsic motivation of enjoyment was not very significant to the quantity of photos shared due to 2 step flow of content creation and content sharing; however, as rightly predicted in a similar study done, Nov and Ye (2009) justified that the enjoyment was positive in its relation to the creation of photos on Flickr and resulted in the focus of the quality of photos shared online rather than the magnitude of photos shared. The attribute of the motivation of enjoyment predicts users to share photos online that are deemed good and worthy to be shared with others in their online community rather than sharing photos in large quantities. For the intrinsic motivation of commitment, Nov and Ye (2009) as well as Nov and colleagues (2009) also showed that commitment was positively correlated to both quality and quantity of photo sharing on an online community on Flickr. Users who feel obligated or committed to their network community find ways to keep the other members of their network updated with their lives and to keep in touch through the sharing of photos.

In another study, Ames and Naaman (2007) investigated motivations for tagging on an online photo sharing community called Flickr, and ZoneTag, a cameraphone photo capture and tagging tool that uploads photos to Flickr. The authors used a qualitative method, in which they interviewed 13 young adults, all ranged between 25 to 35 years old. Although this study specifically targets photo tagging and does not directly relate to motivations of photo sharing which is a broader scope of photo sharing, similar motivations can be drawn from the study. Interestingly, it also noted the different motivations users have when capturing photos (the first act of artifact sharing) and a different set of motivations for sharing and tagging photos on Flickr (the second act artifact sharing), as discussed by Nov and his colleagues (2009) in their research on motivations of photos sharing on Flickr. Ames and Naaman (2007) noted that capturing photos to share with friends and family (to share mutual experience or to connect to those absent in the photo) were originally social/affective in nature. They noted that while relatively few participants were motivated to tag people and additional information for future recollection of past memories, it was used more widely to communicate contextual information for the benefit of known others such as friends and family. This motivation can be related to the commitment to one's online community, in which commitment drives users to tag information and people to communicate and update one's community. In the current study, the intrinsic motivation of enjoyment and commitment will similarly be investigated if the same positive correlation holds true when applied to online photo sharing behaviour in a different online community, specifically Facebook.

In Wasko and Faraj's (2005) study, results were reviewed to have contrary results, noting that extrinsic motivations were stronger than intrinsic motivations for online sharing behaviours. Wasko and Faraj (2005) investigated individual motivations and social capital influence knowledge sharing in an electronic network, specifically, an online message board of a national legal professional association. The study emphasized why knowledge sharing occurred among strangers in the online network. The study comprised of two phases, the first phase is to observe and collect the data, and in the second phase surveys were given out. Taking the volume as well as helpfulness of the knowledge shared, enjoyment was resulted to be less significant. For the intrinsic motivation of commitment that was also studied, knowledge sharing occurred regardless of users having higher commitment to the online network, suggesting that users that are receiving knowledge, rather than sharing, may be the ones who are more committed to the network. Authors reasoned that this may be due to the type of network studied. The online network supported professional activities, giving extrinsic motivations an upper hand to share knowledge compared to intrinsic motivation. Authors also explained that network-based interactions of such may be generalized rather than dyadic and direct reciprocity may not be necessary for sustaining collective action. In our current study, we seek to determine if indeed online photo sharing on Facebook, a social networking site, may show differing results as this type of online network promotes a more personal and dyadic kind of interaction between its users. Moreover, the nature of Facebook is based on the users' connections rather than strangers, thus results may differ.

In conclusion, previous studies showed that intrinsic motivation such as enjoyment and commitment has been strong motivation factors that contribute to online sharing behaviours in online communities such as knowledge and photo sharing. However, contrasting results were also noted in Wasko and Faraj's (2005) study in that extrinsic motivations were stronger factors compared to intrinsic motivations for online sharing behaviours. This study aims to investigate if individuals are also strongly motivated by intrinsic motivations such as enjoyment and commitment to share their photos on Facebook.

2.1.3 Extrinsic Motivations and online sharing. Studies have also investigated extrinsic motivations as viable factors that strongly encourage users to contribute to online sharing behaviours in their online communities. Several extrinsic motivations such as self-development, reputation and reciprocity were studied in previous studies in online communities and they showed strong positive correlations with online sharing behaviours such as knowledge sharing and artifact sharing such as video and photo sharing. Self-development is an extrinsic motivation that is focused on expected rewards or benefits an individual attains from their contribution. Reputation, an extrinsic motivation that is usually portrayed when a person is motivated or pressured to act to avoid guilt or to attain ego-enhancements and to elevate one's self-esteem (Ryan & Deci, 2000). In other words, a person acts to feel accepted by other, as well as to enhance and maintain one's self-esteem and feeling of worth. Findings revealed that knowledge and artifact sharing were positively

correlative with the obtainment of rewards such as the attainment of ego, reputation and the approval from others. Reciprocity is also a form of extrinsic motivation. Blau (1964) defines reciprocity as actions that are dependent on receiving rewarding reactions from others and that the actions stop when these expected reactions do not come. Similarly, Fehr and Gächter (2000) explained that reciprocity is a form of conditional gain and that is rooted deeply in human social interactions. Users expect to reap benefits from their actions and these behaviours are usually done in response to previous friendly actions and responses from others. Similar to perceived encouragement, in which it is said to be an intangible social support that encourages individuals to perform better (Andrecci et al., 2002).

In Lakhani and Wolf's (2005) study, the extrinsic motivation of self-development and reputation were viable factors that led to users sharing creative content on an open software community. The study investigated the effort and motivations behind contributing content in a free open source software. The data collected through an online survey revealed that the extrinsic motivation of self-development was a strong motivational factor for users to contribute, this being the second most common factor after the intrinsic motivation of enjoyment. A comparison between paid contributors and volunteer contributors in the free open software community showed that those who shared content in terms of writing codes for the free open software community on a volunteer basis were more motivated by the development or improvement of their skills. The study also noted that the motivation for the

attainment of reputation was also linked to the increased in content contribution (writing codes) in free open softwares. Those paid to contribute were more strongly motivated by reputation and status compared to those who volunteered their contribution.

Similarly, Oreg and Nov's (2008) study also revealed that extrinsic motivations were one of the main factors that motivated users to contribute content. They studied the values and motivations behind contribution in open source contexts such as Sourceforge and Wikipedia. Results showed that software contributors placed greater emphases on self-development. The study compared two areas; one related software contribution in nature and the latter regarding content contribution. A total of 300 participants filled out the questionnaire on Sourceforge, an online database open source software project and also Wikipedia, a content based open source website. Moreover, software contributors also showed greater contribution when motivated by reputation-gaining. The study also suggests that the weight of motivations such as reputation-gaining and self-development will differ depending on the type of open source contributions. Thus, this current study could also resulted in different findings compared to previous research due to the type of online community being looked at.

Wasko and Faraj's (2005) study noted that extrinsic motivations were stronger than intrinsic motivations for online sharing behaviours Their study emphasized why knowledge sharing occurred among strangers in the online

network showed that users who perceive that sharing knowledge will enhance their reputation not only shared more but also shared information that was more helpful. Authors suggest that it is due to the type of online network and that this particular online network supported professional activities, giving extrinsic motivations an upper hand to share knowledge compared to intrinsic motivation.

Resonating with the studies above, Lampel and Bhalla's (2007) research highlighted that users of virtual communities are strongly motivated by status seeking, in which it can be linked to the building of one's reputation. The online networking sites observed by the authors were such as Tripadvisor, Amazon and IMDB, in which users do not personally know one another. The current research on Facebook is more personal in nature; thus results could differ. Moreover, results also showed that users of virtual communities are strongly motivated by reciprocity and it was also found to be significantly correlated with status seeking of those who are motivated to contribute content online. However, the sites observed by the authors were such as Tripadvisor, Amazon and IMDB, in which users do not personally know one another. In our current study, we seek to determine if indeed online photo sharing on Facebook, a social networking site, may show differing results as this type of online network as the nature of Facebook is based on the users' known connections rather than strangers and will perhaps differ in results.

Chang and Chuang's (2011) study also investigate the motivations behind the quantity and quality of knowledge sharing in virtual communities. Results from 282 valid participants from an online survey showed that reputation had a positive effect on the quality but not on the quantity of knowledge sharing. In other words, contributors of knowledge in virtual communities were more concerned with making sure that the quality of shared knowledge was maintained rather than sharing a large quantity without any depth. Also, the results of the survey showed that reciprocity had a significant and positive effect on both the quantity and the quality of knowledge sharing. In other words, contributors of knowledge in virtual communities were more concerned with making sure that the quality of shared knowledge was maintained rather than sharing a large quantity without any depth. Kwon and Wen's (2010) study similarly found that other users reciprocated positive encouragement; the users were more likely to continually use the social networks. When individuals perceive that the interaction or exchange will bring more benefit compared to the cost, individuals will more likely engage in contributing behaviours. Similarly, when individuals perceive that their contributions will be responded with positive encouragement from others in the network, they will more likely to contribute or share. This factor can be related to the extrinsic motivation of reciprocity; when users' feel that others are reciprocating in various forms such as giving "likes", or comments, users are motivated to share online.

In a study on Facebook and motivation, Pi, Chou and Liao (2013) investigated Facebook Groups users' willingness to share knowledge with one another on Facebook. Among the factors in the study, the authors included extrinsic motivation, social and psychological forces and social networking sharing culture. 271 responses were collected through an online survey, all respondents were young adults aged between 20 to 29 years old. Results indicated that the motivation of reputation positively influenced their attitude toward knowledge sharing as they believed that by sharing they would gain reputation and would receive respect and enhance status in their Facebook Group.

Hung and colleagues (2011) also looked into motivations of the quantity and quality of individual's knowledge sharing behaviours. The research was experimental in nature, in which participants were broken up into groups to engage in knowledge sharing activities in a team setting. The attributes of knowledge sharing was rated by knowledge quantity (number of ideas), knowledge quality (usefulness of idea and idea creativity) and perceived meeting satisfaction. Reputation feedback had a significant effect on both the quantity and quality of sharing, did not have a significant effect on perceived meeting satisfaction. In the study, the reputation mechanism provided participants information regarding the number of unique ideas generated. Hence, participants may feel good about themselves when he or she were seen to have shared a large amount of ideas. Interestingly, although reciprocity did not have any significant effects on neither quantity nor quality

of the knowledge shared, it did have a significant positive effect on meeting satisfaction. The authors noted that because of the type of interaction in which the group meetings were network-based interactions rather than dyadic interactions, direct reciprocity was not necessary to sustain collective actions. Results may differ since the current study looks into a more dyadic-based network such as Facebook.

Extrinsic motivations were prominent in several studies focusing on online photo sharing on an online community called Flickr (Nov et al., 2009; Nov et al., 2010; Nov & Ye, 2009). Nov and Ye (2009) found that expected rewards such as self-development was positively related to the quality of the content shared. However, in Nov and colleagues' (2009) study, it had a significant negative correlation with the quantity of photos that users share online. Interestingly, veteran members who were motivated by self-development shared more photos compared to newer members. Nov and Ye (2009) linked the trade-off between quality and quantity in online photo sharing in which users who were motivated by these factors were more concerned about the quality of their photos as self-development was positively correlated with the quality of photos shared. They suggest that the reason being is that newer members may be initially more cautious in sharing their photos but over time they may share more photos when they have gained confidence and positive feedback from their online community. The extrinsic motivation of reputation was positively correlated to online photos sharing on Flickr where the quality of photos shared had a greater impact on user's

motivation to share as users will more likely want to share only the best photos to get recognition from others compared to the quantity of photos shared (Nov & Ye, 2009; Nov et al., 2009). Moreover, Nov and colleagues (2010) also found a positive correlation between reputation with metainformation, noting that those motivated by gaining reputation in the community attempts attract notice from others by providing metainformation, rather than being concerned about the quantity of the photos shared online.

In a similar study on Flickr, Ames and Naaman (2007) investigated motivations for tagging on a photo sharing website called Flickr and ZoneTag. The authors noted that sharing of photos on a publicly-accessible website such as Flickr reflected the values of capturing and sharing photos for artistic exposure and recognition. The motivation is similar to what is being researched in the current study; artistic exposure can be viewed as wanting to gain recognition which is similar to the motivation to improve one's reputation. The authors noted that users tagged to make their photos more findable by the public, and in return giving them better chances of more feedback from others such as the number of times each photo was viewed, which photo was chosen as a favourite by others, getting more comments; all in favour of the person sharing the photos having the satisfaction that their photos are getting attention and they are gaining good reputation in the Flickr community. This can be similarly related to the current study which looks at reputation as well as reciprocity from others. Although this study specifically targets photo tagging and does not directly relate to motivations of photo

sharing which is a broader scope of photo sharing; similar motivations can be drawn from the study such as reputation and reciprocity.

Another study based on a different artifact-sharing online community called YouTube also reviewed that extrinsic motivations were a strong factor that led to users online sharing behaviours, in this case, videos (Huberman et al., 2008). The study noted that attention was an important factor in the generation of content on YouTube. In their YouTube study, they collected data from YouTube by obtaining videos sent in by users, followed by keeping count of its datestamp, user's ID and final view count. Huberman and colleagues (2008) suggest a strong correlation between attention, continuation of content creation and sharing and users' tenure in that online network as results showed that sharing content creation had a strong positive dependence on the attention (which could be translated to reputation and reciprocity) received on the users' videos, whereby the increase in attention led to heightened content uploads. A lack of attention (smaller view count) resulted in a decrease in the users' consequential uploads and to some extent resulted in no uploads at all. Thus, the findings suggest a strong correlation between attention, continuation of content creation and sharing and users' tenure in that online community. In line with this current study, the "attention" received by other users can be linked to reputation and reciprocity, resulting in an increase in photo sharing on Facebook.

Several studies have also examined the motivations of users' photo sharing behaviour on the online community called Facebook. Acquisti and Gross' (2006) study showed that users rated the motivation of increasing one's reputation and making one's self popular as a strong motivator for their friends to share information on Facebook. Their study among 294 participants, mainly students, noted that "showing information/ advertising themselves", "making themselves popular" (or in other words increasing their reputation), and finding dates were popular responses when asked to rate how often their peers share content on Facebook. Similarly, Burke and colleagues' (2009) study quantitatively examined photo contribution on Facebook. However, his focus was on the factors that motivate newcomers to share. Results showed that the motivation for newcomers to share more photos are linked to the distribution of the user's photos by others, therefore distribution is related to attention and therefore, reputation. Moreover, results also showed that motivations to share photos are linked to the direct feedback on photos (such as comments). Burke and colleagues (2009) suggests that when users see other friends share photos on Facebook, as well as when they receive direct feedback on their photos such as comments, newcomers will in return share more photos on Facebook and this can be linked to reciprocity. These factors are similar to the ones being studied in the current study, in which factors such as reputation and reciprocity are being looked into as a motivation that encourage users to share their photos on Facebook. This current study not only looks at photo contribution of newcomers but widens its scope to both newcomers as well as the more veteran Facebook users. In another study, Mendelson and Papacharissi's (2010) study of college student's Facebook photos analysed the

different types of photos shared on Facebook. In their qualitative study, they noted that the quantity of photos shared was also highly correlated with the number of comments made on the photos. This is related to the current study, in which the extrinsic motivation of reciprocity will be explored if it plays a role in users' online photo sharing behaviours on Facebook.

In summary, previous studies have shown that extrinsic motivations such as self-development, reputation and reciprocity are strong motivators for users to share knowledge as well as artifacts such as photos and videos. Thus, in research question two and three, this study also seeks to investigate if the study resonates similar results that users will be motivated by the extrinsic motivations as well as the strength of the motivations to share their photos on Facebook.

2.1.4 Summary of motivations and online sharing. So far, these factors of intrinsic and extrinsic motivations have been investigated in knowledge sharing behaviours in online communities. More importantly, it has been observed in artifact sharing online communities as well as it is more similar to what this current study is focused on which is online photo sharing in Facebook. The literature review has shown that intrinsic motivations such as enjoyment and commitment, as well as extrinsic motivations such as self-development, reputation and reciprocity are strong motivators for users to share knowledge on free open source online communities and artifacts such as

photos and videos on their online communities. However, it has not been investigated in photo sharing behaviours on Facebook. Thus, generalizations cannot be done based on different types of online communities and all these factors have been looked at separately in various studies. The current study seeks to combine all these factors into one study and investigate if the intrinsic and extrinsic motivations are viable factors for users to share their photos on the online social networking site of Facebook.

2.2 Privacy Concerns in Online Sharing

In addition to the study of intrinsic and extrinsic motivations as viable factors that motivate users online photo sharing behaviours, this study also seeks to investigate the area of privacy concerns of users and if their concerns affect their photo sharing behaviour. Privacy concern is a huge concern as the prevalence of photo sharing on Facebook has led to many negative implications. Although Facebook implemented privacy controls that allowed users adjust their privacy settings, previous research have indicated that users' privacy concerns and their behaviours are contradictory. Thus, privacy concern and its effect on users' photo sharing behaviour is essential to be looked into and this study aims to investigate if users' privacy concern affect their photo sharing behaviours on Facebook in research question four and six.

2.2.1 Online Privacy. Legalistically, the term “privacy” has been defined as one’s right to be let alone (Warren & Brandeis, 1890). Westin (1967) on the other hand, regards privacy as a person’s right to prevent the disclosure of personal information to others. There has yet to be a unified definition of privacy (Joinson & Paine, 2007) as the term “privacy” varies according to different contexts and is very subjective to each individual (Varian, 1996) and it carries a wide range of definitions by different researchers in different fields (Bryce & Klang, 2009). There are many different dimensions to the definition of privacy such as physical privacy, social and communicational privacy, accessibility privacy, expressive privacy, and informational privacy. However, though the definitions of privacy varies, overlapping very much occurs throughout each one (Buchanan, Paine, Joinson, & Reips, 2007), making it ever harder to distinguish or separate. Informational privacy regards privacy as the right to decide how, when and to what extent information about one’s self is made available to other people (Burgoon et al., 1989; Westin, 1967). It overlaps with accessibility privacy by which “acquisition or attempted acquisition of information involves gaining access to an individual” (DeCew, 1997, P.76). Physical privacy, defined as the extent a person is physically accessible to others (Burgoon et al., 1989) crosses over to accessibility privacy; for example, when one’s personal information such as a home address retrieved from one’s social networking site is obtained without permission. Expressive privacy, on the other hand, is relayed as the control over how one expresses one’s self-identity through speech or activity, which holds much importance in the ability to control self-expression to build interpersonal relationships with others (DeCew, 1997). This overlaps with

social and communicational privacy that is defined as one's ability to control social contacts (Burgoon et al., 1989).

Altman (1975) echoes the same perspective, stating that privacy is being able to selectively control of one's self to others. Altman demonstrates in his privacy regulation theory that privacy is both dialectic and dynamic in nature. A person's openness and closeness of one's self to others is associated with privacy being "dialectic" in nature whereas "dynamic" nature shows that a person's desired level of privacy at any particular time may vary over time according to one's situation or environment. Altman also states that the ideal or optimum privacy is achieved when one experiences the desired solitude and social contact according to one's needs and wants concurrently. In other words, having optimum control over one's openness and closeness of one's self to others.

Thus, the overall central message or reoccurring theme throughout these dimensions of privacy is the desire to keep personal information out of the hands of others and to connect with others without interference (Altman, 1975; Westin, 1967). Kurt (2010) resonances with the same definition, stating that privacy is generally summed up as the ability to control and limit the access of one's self to others, whether in the form of information, physical, psychological or interactional access. Online privacy can be defined as the controlled access to individual's online personal information.

With the increasing use and dependency of the internet and the social media in everyday life, users are not only obtaining information about the world and the people around them but they are also frequently providing information about themselves. Internet users spend a huge amount of their online time on social media, participating in their online community by sharing information and generating content to share publicly or semi publicly.

Mobile devices and smart phones also allow for easier and more convenient access to the internet as well as to be constantly connected to one's online community. Furthermore, with the integration of camera phone applications, users' content can be easily uploaded directly online, making the sharing of users' personal content increasingly convenient, assessable and efficient. The heighten accessibility and availability of personal information and content online comes with a great cost on users privacy (Taddicken, 2010), leading to more acute and pronounced privacy concerns. With an increase of privacy concerns, a more stringent control over one's privacy settings would have been expected. However, researches have indicated that people's attitudes and concerns about their privacy were not in line with their actions as users also seemed to be sensitive about their privacy ; they did not change their privacy settings to match their precautious attitude (Ahern et al., 2007; Spiekermann, Grossklags, & Berendt, 2001). Thus, it is important to

measure if users' privacy concerns affect their online sharing behaviours, as in this present study, their online photo sharing behaviour.

2.2.2 Privacy concerns and online sharing. Besmer and Lipford's (2008) small focus group discussed users' privacy perceptions of photo sharing on Facebook and coping mechanisms to invasions of privacy. Many users expressed concern over the wide reach of their shared photos as well as the lack of control. College students agreed that it was important for them to protect their identity information (Stutzman, 2006). However, these same students on average said it was acceptable for their friends, family or classmates to have access their social networking profile and remained neutral about strangers doing the same. In another study, Fogel and Nehmad (2009) studied on risk taking, trust and privacy concerns on social networking sites such as Facebook and Myspace; majority of the participating college students were members of Facebook. These participants with profiles on social networking websites were found to possess greater risk-taking attitudes and were less concern with identity information disclosure and they allowed anyone to view their profile without toggling their privacy setting.

Acquisti and Gross (2006) conducted a study on Facebook and privacy among students, faculty members and staff. They noted that respondents were more concerned about their personal privacy and those who were members of Facebook were less concern of strangers obtaining their personal information.

Among participants who expressed high privacy concern, some still provided information on their home address and class schedules. Majority of the participants knew how to control their privacy settings but seem to accept the fact that it works on information sharing among each other.

Debatin and colleagues' (2009) research explored Facebook users' privacy attitudes and behaviours and their results showed that 18% of their 119 participants of Facebook users reported to experience negative effects like unwanted advances, stalking, harassment, damaging gossips or rumours and data theft. However, it did not hinder them from continuing to share content and to be connected. In fact, Facebook remained as an indispensable tool to stay connected to their friends and the benefits of Facebook outweigh privacy concerns, even when concrete privacy invasion was experienced. Thus, users showed ignorance towards the online privacy issues and did not bother to protect their online privacy. Although some of them perceived themselves as knowing the privacy settings of Facebook well, their actions stated otherwise, leaving a contradicting conclusion that perceived privacy and behaviours do not match. The researchers also made possible explanation from the findings of their research that perhaps participants were satisfied with the "idea of control" through the privacy settings of Facebook, even though, they are really do not have real control over their privacy and they were not aware or not concerned about the temporary boundary intrusions.

In a study on privacy decisions in photo sharing on Flickr (Ahern et al., 2007), qualitative and quantitative research was done to identify factors that contribute to users' privacy decisions and considerations when making their online photos public or private. Results not only identified that users were more likely to make their photos public in locations they frequently photograph but also suggested that participants were very concerned about how others view them when making changes to their privacy settings when sharing their online photos, especially if the security and identity of other people appeared in their photos. On an interesting note, users applied privacy settings and attitudes seemed to differ although most users stated that they were sensitive about their location privacy, they did not make effort to configure privacy settings. This could also be a tell tale sign for the present study that users' concern and if it is reflected in their online photo sharing behaviour on Facebook.

There are few researcher which specifically investigated internet users' privacy awareness and concern in Malaysia. Among the few, a research by Mohd Ikhsan, Ikmal and Saddiah (2013) reported that 68% of participants were aware of the risks when disclosing private information on Facebook. Similarly, about 89% of participants were aware that they had rights on the personal information provided under a law. However, only 31% of participants were aware of the Personal Data Protection Act 2010. They pointed out that

the existing Malaysian laws were not enforced fully in educating people concerning the privacy and data protection in SNS.

Another study in Malaysia revealed that social network users were less aware of their roles in SNS, information they disclose and the consequences of disclosing sensitive information on SNS (Hasan & Hussin, 2010). To be more specific, 62.2% of participants do not read the sites' terms and condition when they sign up, 44.5% use the same password for SNS and emails and 52.1% revealed their personal information in SNS. These practices indicate that majority of participants were unaware of how personal information is disclosed and released to others on SNS.

2.3 Gender studies

2.3.1 Gender and online photo sharing behaviour. Generally, reports show women are more active users on social media as well as in online photo sharing. Women (77%) are also more likely to use Facebook compared to men (66%) (Pew Research Center, 2015). Moreover, women had an average of 55% more posts on their walls compared to men (Vermeren, 2015). Women were using social media more often than men, with 30% of women using social media daily compared to 26% of men. Women are also using social media in more ways compared to men in which women have a higher percentage of accessing social media via smartphones (women 46%, men

43%) and tablets (women 32%, men 20%) (Finance Online, 2013). In another research comparing gender differences with multiple forms of mediated communication such as social networking sites, e-mail, video calls, instant messaging, texting and phone calls, the results indicated that women are generally more frequent users of mediated communication (Kimbrough, Guadagno, Muscanell, & Dill, 2013).

Studies have shown that females posted more photos than males (Joinson, 2008; Pempek et al., 2009). A similar research also stated that women change their appearance on Facebook more often than men and this behaviour often leads to women having more photos than men (Raacke & Bonds-Raacke, 2008). Lenhart and Madden (2007) also echoed the same results in their study on teenagers' use of social networking sites such as Facebook and reported that online photo sharing behaviours were more popular among females as compared to males. Mendelson and Papacharissi's (2010) study also reported that women not only have more photos on their Facebook (women had an average of 337 photos, and men had 93 photos) but they were also more likely to share and tag photos and comment more than men. In a study among Chinese University students' uses of online social networking sites, females were more likely to upload self-photos and update their status (Wang, Woo, Quek, Yang, & Liu, 2012).

2.3.2 Gender and privacy concern. There are several studies that indicate gender differences in regards to online privacy concern. Park (2015) explained that privacy may be a different functioning norm to males and females. Females were more sensitive in establishing private boundaries as both genders grew up in different social environments that nurture different sets of skills in dealing with socializing and privacy. Results showed that males were significantly better equipped than women with privacy technical skills and were associated to have more confidence in protecting their privacy. Park attributed females' poorer privacy protective behaviors to their lower self-confidence of privacy protection.

Smit et al. (2014) found that the group of participants who were the least concerned about their online privacy had the highest level of knowledge on cookies but also showed less privacy protection behavior. This group also consisted mainly of males, had high education level and higher income. The group that was highly concerned about their online privacy had slightly lower knowledge about cookies and was reported to consist of more women, had less education and lower income.

In Fogel and Nehmad's(2009) study on risk taking, trust and privacy concerns on social networking sites, they found that male participants showed greater risk taking attitudes and were less concern with identity information disclosure, whereas, women were found to be more concern over their privacy

and had fewer friends but were still more likely to share information by writing on other people's profiles. Furthermore, Acquisti and Gross' (2006) study on Facebook and privacy among students, faculty members and staff noted that in terms of gender, it was shown that women had significantly higher average privacy concerns compared to their male counterparts.

2.4 Theoretical Framework

2.4.1 Self-determination theory of motivation. Researches have shown that motivations play a big part in active participation and online sharing. In fact, many researchers have echoed such motivation factors in their work on motivations behind online sharing for users who share in their online communities. The motivational factors taken into consideration are intrinsic and extrinsic motivations of the self-determination theory of motivation (Deci & Ryan, 1985). According to Deci and Ryan (1985), motivations are defined as when a person is moved to do or take action towards something. When a person is not motivated, the person does not feel inspired to act; however, when motivated, he or she will feel energized and will take initiative and will actively do something. The authors also suggested that motivations are not only concerned with how much motivation a person has to do something but also the reasons of those actions, goals and attitudes. In the self-determination theory, the authors differentiated different motivations based on different reasons that give rise to an action. The reason for a particular action to take place lies within the motivations that prompt a person to take such an action in

the first place, either of intrinsic or extrinsic values. Ryan & Deci (2000) also noted that the quality of people's experience and the results of one's performance are highly dependent on whether a person is motivated intrinsically or extrinsically.

Intrinsic motivations emphasized on the inherent satisfaction rather than the separable consequences of the act such as the act being interesting or enjoyable (Deci & Ryan, 1985; Ryan & Deci, 2000). In other words, intrinsic motivation occurs when a person does something due to its inherent satisfaction such as to enjoy doing it rather than having the objective of obtaining a separable consequences of external rewards or benefits. White (1959) first noticed intrinsic driven behaviour in animals, in which many of the activities observed in animals were driven by curiosity, playfulness and exploratory behaviours, even without a reward present. Similarly, humans also showed the same natural, instinctive inquisitive and playful behaviours to learn and explore since birth (Deci & Ryan, 1985). Intrinsically motivated activities are considered to be a reward in itself (Skinner, 1953) and also the ones that provide the satisfaction of a person's innate psychological needs (Hull, 1943). Based on previous research, intrinsic motivations such as enjoyment and commitment have been proven to be a major factor in motivating people in their online sharing behaviours.

Extrinsic motivations, on the other hand, are instrumental and represent and focus on extrinsic rewards and expected benefits obtained from doing a certain behaviour or activity (Deci & Ryan, 1985; Lerner & Tirole, 2002). Extrinsically motivated activities happen when a person does an activity in order to attain some separable outcomes such as to get rewards, avoid punishment, to get approval from others and so on (Ryan & Deci, 2000). Extrinsic motivations focus on expected rewards or benefits an individual attains from their contribution. The self-determination theory also suggests that extrinsic motivations can vary in its degree of autonomous as well as vary in positively or negatively motivated (Ryan & Deci, 2000). A person may be extrinsically motivated to perform an activity out of fear of being punished by authorities and thus , does it to attain a separable outcome of avoiding negative rewards. On the contrary, another may be extrinsically motivated to perform the same activity but rather than being motivated negatively, the person does it as a personal belief that the action is valuable and will reap positive benefits such as the building of one's character of self-improvement. In both cases, extrinsically motivated actions were portrayed but the difference lies in that one was motivated negatively, as well as determined by external control and factors while the latter had more autonomous, positive and a personal endorsement, an internal choice. Prior studies on knowledge sharing as well as artifact sharing on online networks have shown that extrinsic motivations such as the motivation to obtain rewards through self-development, reputation and reciprocity were positively associated with online sharing.

Thus, this study will draw on intrinsic motivations such as enjoyment and commitment and also extrinsic motivations such as self-development, reputation and reciprocity from others.

2.4.2 Social exchange theory. The social exchange theory has a lot of similarities with motivations as well. The social exchange theory is defined as the social interaction engaged by individuals based on expectations that will lead to social rewards (Blau, 1964). Moreover, the social exchange theory states that all human interaction wants to maximize benefits incurred and minimize cost that they would have to bear (Hung, Durcikoya, Lao, & Lin, 2011). Cook and Whitmeyer (1992) sees the social exchange theory as an interaction based on two major principles: firstly, people are motivated by interests of rewards or punishments and secondly, the interaction consists of the exchange of valuable items. Thus, the theory emphasizes that the exchange of information or content between each other will more likely to occur if the benefits outweigh the cost. Moreover, although social interaction and the exchange of information through that interaction can be a one off event or multiple interactions and exchanges can be stretched out over a period of time, Molm (1997) noted that more benefits were seen to be incurred in having a long term relationship of interest and interaction with one another, compared to a one time exchange (Hung et al., 2011). The theory further implies that users in virtual communities expect mutual reciprocity to justify their time and effort spent on sharing knowledge (Thibaut & Kelly, 1959).

The social exchange theory indicates that when individuals perceive that the interaction or exchange will bring more benefit compared to the cost, individuals will more likely engage in contributing behaviours. Similarly, when individuals who perceive that their contribution will be reciprocated with positive encouragement from others in the network, they will more likely to contribute or share. Benefits such as the encouragement reciprocated through others were also showed to have a positive effect on human performance (Andreacci et al., 2002; Kwon & Wen, 2010). Campos, Cannon, Lundin and Walker's (1929) initial experiment on training dogs revealed that when verbal encouragement was reciprocated, it became a vital and significant factor that increases performance. Reciprocity through verbal encouragements and responses such as "That photo is awesome", "Great Job!", or "You look so cool in this photo!" are common in face to face interactions and the same expressions and meanings can be exhibited and relayed through nonverbal means of communication through computer mediated communication such as the literal communication of words in comments, emoticons and "like" buttons.

Extrinsic motivations that emphasise on the attainment of rewards as a contributing factor that encourages social interaction and contribution and the benefits arising from social exchange are many and it includes rewards similar to attributions found in extrinsic motivations such as self-development, reputation acknowledgment and reciprocity from others. The factors mentioned above coincide with Deci and Ryan's (2000) efforts in emphasizing

the values of motivations on people's actions. Moreover, these cost and benefits will determine one's effort in sharing as well as ensuring if one's sharing will be an ongoing exchange with others. Thus, this study will draw on benefits incurred such as self-development, reputation, and reciprocity from others.

2.4.3 Social capital theory. The social capital theory also supplements motivations in the self-determination theory and the social exchange theory. Putnam (1995) suggested that social capital facilitates cooperation from each other for mutual benefits. According to Nahapiet and Ghoshal (1998), the social capital theory draws out that one's social capital, also known as one's network of relationships or social network as well as the resources that comes with it, are strong influences on the extent of one's interpersonal communication and to achieve goals such as knowledge sharing or other forms of sharing. Moreover, Chang and Chuang (2011) further emphasized that these networks of relationships often exist between individuals, communities, networks and societies. Close social interactions with one's network also results in the increase of the depth, breadth and efficiency of mutual communication and knowledge exchange (Lane & Lubatkin, 1998). Furthermore, the norm of reciprocity is a sense of mutual indebtedness that drives individuals to reciprocate the benefits that they receive from other members in the network. Shumaker and Brownell (1984) noted that this sense of mutual reciprocity ensures ongoing supportive exchanges among the members in a network.

Nahapiet and Ghoshal's (1998) research provided a clear framework in understanding the relationship between social capital and the creation and sharing of knowledge within an organization. They applied the social capital theory into three main areas: structural (relationships found within an organization), cognitive (the extent of individuals in a social network share common perspectives, understanding and shared meanings) and relational (the nature of these connections between people in a social network). In this research, the emphasis is on the relational dimension of the social capital theory in which it denotes that social capital, which is one's social network, promotes continual, long term interaction and relationships of commitment and reciprocity to each other as it is the main focus of Facebook. One's relational capital exists when members perceive an obligation and commitment to participate in one's network (Coleman, 1990) and also recognize and abide by its norm of reciprocity (Putnam, 1995). The social capital theory suggested that the norm of reciprocity encourages individuals to reciprocate benefits they receive from their relational capital in their network. Moreover, Coleman (1990) noted that commitment represents a duty of obligation an individual has to future contribution that arises from continual interaction with others in the same network.

The social exchange theory as well as the social capital theory both supplement the self-determination theory of motivations and investigates the influence of extrinsic and intrinsic motivation in the external benefits of

rewards as well as the benefits of mutual interactions and exchange with relationships in one's online network as viable factors for online sharing. Researches have shown that these factors such as one's social capital is a significant determinant that affect how much an individual contributes or shares within a social network as people's behaviours are products of their social network (Bandura, 1989). Prior research showed that commitment is a viable motivation that encourages individuals to contribute knowledge in networks (Lakhani & Wolf, 2005; Oreg & Nov, 2008; Wasko & Faraj, 2005) as well as a strong motivation in individuals' photo sharing behaviours on Flickr (Nov & Ye, 2009; Nov et al, 2009). Reciprocity also plays an important role in knowledge exchange in online networks (Chang & Chuang, 2011; Kwon & Wen, 2010; Lampel & Bhalla, 2007). Thus, this research draws from this theory to further examine two areas of relational capital that prior research have indicated and are deemed relevant to social networks, namely the motivation of commitment and reciprocity.

2.5 Summary in New Conceptual Framework

Although prior studies have shown that many researches have been done regarding knowledge sharing and artifact sharing in various areas and disciplines, few studies have yet to investigate the relationship between the online sharing of photos on the users' online social network in Facebook and the motivations behind such sharing behaviours. Thus, this study aims to close this gap and contribute data that would continue to create a more wholesome

understanding in this area and of the motivating factors that drive users to share online photos on Facebook. The figure below is the conceptual framework from the literature review.

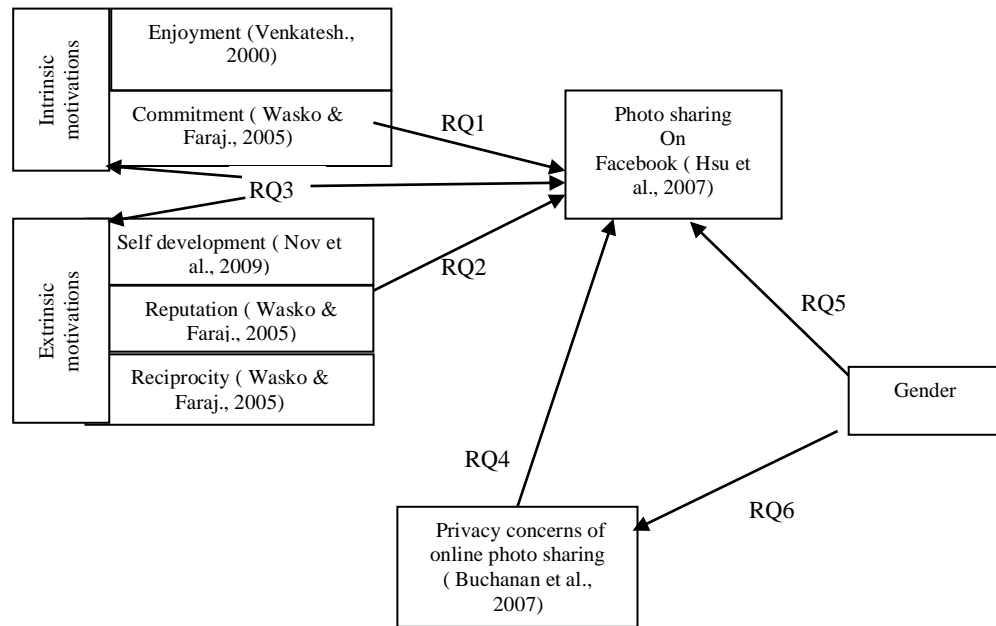


Figure 2.1: Conceptual Framework

The conceptual framework is constructed based on various theoretical perspectives such as the self-determining theory of motivation (Deci & Ryan, 1985), the social exchange theory (Blau, 1964), as well as the social capital theory (Nahapietand & Ghoshal, 1998). These theoretical perspectives were applied to many studies that focused on the motivations behind online sharing behaviours in online communities. Thus, this study also draws on the strengths of these theoretical perspectives and applied them to the research questions of this research.

For research question one, this study aims to expand and confirm if individuals are similarly intrinsically motivated by the motivations of enjoyment and commitment to share photos on Facebook. Previous studies have shown that intrinsic motivations such as enjoyment and commitment play a crucial role in motivating users to share online. Enjoyment was found to have a positive correlation to share knowledge and content in online communities such as open source softwares and online communities such as Wikipedia (Lakhani & Wolf, 2005; Nov, 2007). Artifact sharing communities was noted to be influenced by the motivation of enjoyment (Acquiti & Gross, 2006; Nov & Ye, 2009; Nov et al., 2009). The intrinsic motivation of commitment was positively correlated to both quality and quantity of photo sharing on an online community on Flickr (Nov & Ye, 2009; Nov et al., 2009). Lakhani and Wolf's (2005) study stated that obligation to contribute also played a part to motivate users to contribute. Wasko and Faraj (2005) showed that knowledge sharing occurred regardless of users having higher commitment to the online network, suggesting that users that are receiving knowledge, rather than sharing, may be the ones who are more committed to the network.

For research question two, this study will look into the relationship between extrinsic motivations (self-development, reputation and reciprocity) and photo sharing behaviour. Kwon and Wen (2010) found that when other users reciprocated positive encouragement, they were more likely to continue

to use the social networks. Oreg and Nov's (2008) results similarly showed that software contributors placed greater emphases on self-development and reputation-gaining (Lakhani & Wolf, 2005; Oreg & Nov, 2008; Wasko & Faraj, 2005). Acquisti and Gross' (2006) study showed that users rated the motivation of reputation as a strong motivator for their friends to share information on Facebook. Reputation and reciprocity were also strong factors to contribute information on TripAdvisor, Amazon and IMDB (Lampel & Bhalla, 2007). Reputation was shown to have a positive correlation with the quality of content sharing whereas reciprocity showed positive correlations with both quantity and quality of sharing (Chang & Chuang, 2011). Hung et al. (2011) showed that reputation feedback had a significant effect on both the quantity and quality of sharing whereas reciprocity had a significant positive effect on meeting satisfaction. Studies on Flickr noted that self-development and reputation had a positive correlation with the quality of photos shared (Nov & Ye, 2009; Nov et al, 2009). Nov and colleagues' (2010) study also found a positive correlation between reputation with metainformation. Huberman and colleagues (2008) results showed that sharing artifacts such as You Tube videos had a strong positive dependence on the attention and reputation received on the users' videos. Newcomers were motivated by reputation and reciprocity gained when sharing photos on Facebook (Burke et al., 2009), as well as tagging photos to reputation and reciprocity from others on Flickr (Ames & Naaman, 2007).

Research question three aims to find out if intrinsic or extrinsic motivations play a stronger role in users online photo sharing behaviour. Lakhani and Wolf's (2005) study showed that intrinsic motivations such as enjoyment-based intrinsic motivation was the strongest motivator for users to creatively contribute as compared to extrinsic motivations. In Wasko and Faraj's (2005) study, results were contrary, noting that extrinsic motivations were stronger than intrinsic motivations for online sharing behaviours. Nov and colleagues (2009) also noted that intrinsic and extrinsic motivations played contradictory roles in online photo sharing in Flickr; intrinsic motivations showed more positive correlations with enjoyment and the quantity of photos shared whereas extrinsic motivations of self-development and reputation showed a stronger influence towards the quality of photos shared.

Research question four aims to investigate the relationship between users' privacy concern and if their concern is translated to their online photo sharing behaviours on Facebook. Prior studies reviewed that there is inconsistency between users' privacy concern and their behaviour. In Fogel and Nehmad's (2009) study, participants with profiles on social networking websites were less concern with identity information disclosure and allowed anyone to view their profile without toggling their privacy setting. It was also noted that respondents are fully aware of the nature of a social network, accepting the fact that it works on information sharing among each other, thus, the inconsistency between users' concerns and actions (Acquisti & Gross,

2006). Debatin and colleagues' (2009) results showed that although users have experienced the negative effects of Facebook, it did not hinder them from continuing to share content and to be connected. Ahern et al. (2007) identified that users were very concerned about how others would perceived them. However, their privacy settings and attitudes seemed to differ. Most users stated that they were sensitive about their location privacy, however, they did not make effort to configure privacy settings.

Research question five and six investigate if gender differences play a role in users' photo sharing behaviour (Research question five), as well as in their privacy concern (Research question six). Gender differences in online photo sharing behaviours are also evident in previous researches. In general, studies have shown that females posted more photos than males (Joinson, 2008; Kimbrough et al., 2013; Lenhart & Madden, 2007; Mendelson & Papacharissi, 2010; Pempek et al, 2009; Raacke & Bonds-Raacke, 2008; Wang et al, 2012;). For privacy concern, male participants showed greater risk taking attitudes and were less concern with identity information disclosure whereas women showed more concern over their privacy, had less friends but still were more likely to share (Fogel & Nehmad, 2009). Park's (2015) study showed that males were significantly better equipped than women with privacy technical skills and were associated to have more confidence in protecting their privacy. Smit et al. (2014) showed that males with high education and higher income were less concern about their online privacy

whereas women who had less education and lower income were more concern about their privacy.

In summary, the research questions are in line with the research objectives in this study. In research questions one to three, the research aims to test the combination of motivational factors such as intrinsic and extrinsic motivations and online photo sharing behaviours on Facebook (enjoyment, commitment, self-development, reputation and reciprocity) among Malaysian young adults' aged 18 to 34. Moreover, the study will also examine privacy concerns and how it affects users' online photo sharing on Facebook (research question four). Research questions five and six aim to test gender differences in regards to online photo sharing behaviours as well as online privacy concerns on Facebook.

CHAPTER 3

METHOD

3.1 Introduction

In the present chapter, the methodology for this research will be introduced and explained in detail. The chapter will provide a comprehensive explanation on the dependent and independent variables, the sampling method, research procedures, questionnaire design and measurement techniques used in the study. The procedure of data collection and data analysis will also be discussed further in this chapter. A pilot test that was conducted will also further provide the validity and reliability for the scales used in the study.

3.2 Research Variables

To study the impact of users' online photo sharing behaviours on Facebook, the variables of the study are as follows. The independent variables of this study consist of individual motivational factors such as enjoyment and commitment that are intrinsic in nature, as well as self-development, reputation and reciprocity that are extrinsic in nature. The dependent variable is Facebook users' online photo sharing behaviour. Users' privacy concern will also be taken into consideration as an independent variable and to see if it

impacts their dependent variable of their photo sharing behaviours on Facebook. To grasp a clearer picture of the variables, the conceptual model below shows the interaction between the independent and dependent variables of this study.

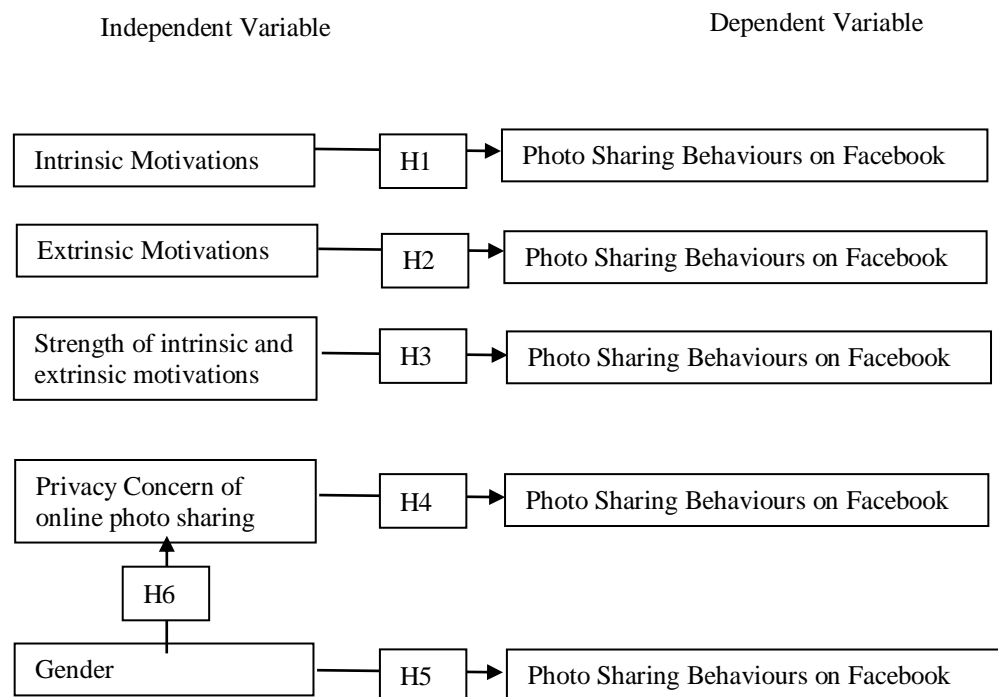


Figure 3.1: Research conceptual model

3.3 Population Size and Sampling Technique

The online questionnaire for this study targeted members of Facebook in Malaysia, an electronic online social network. Non-probability purposive convenient sampling was used to obtain the participants for this study. The sample of the study was collected without using rules of mathematical probability. Non-probability sampling is a convenient way for researchers to assemble a sample with little or no cost and for those research studies that do not require representation of the population. Purposive sampling is useful if a researcher wants to study a small subset of a larger population in which many members of the subset are easily identified as the enumeration of all is nearly impossible (Babbie, 1990). A purposive convenience sample is also justified because this is a novel research field for which data are difficult to obtain and because online surveys rely on self-selection mechanisms and make randomized sampling difficult (Riffe, Lacy, & Fico, 1998). The criteria that the respondents must meet were such as the participant 1) must be between ages 18 to 34, 2) must be a Malaysian, 3) must be a member of Facebook and; 4) have shared photos on Facebook.

In order to obtain an appropriate sample size, calculation of the sample size was determined based on three criteria, namely the level of precision, the level of confidence or risk and the degree of variability (Israel, 1992). The study used the simplified sample size formula by Yamane (1967), $n = N / I + N$

$(e)^2$, where n represents the sample size, N represents the population and e represent the level of precision. Putting it into local context, out of 15.6 million Malaysian Facebook users (Mustafa, 2014), 65.3% are between ages 18 to 34 (Socialbakers, 2013), the highest users among other age categories. Thus, in total, Malaysian Facebook users within ages 18 to 34 comprises of 8,873,956.56 users (Socialbakers, 2013). Applying the formula above with 0.5 precision, the sample size needed was 400 respondents in order to have a better representation of the sample population. A similar sample size was reflected in a study on photo sharing behaviours in Flickr in which, 15% of the randomly chosen sample (400 valid respondents) was received (Nov et al., 2009).

3.4 Research Procedure

To collect data, the multi-step distribution procedure, also known as the snowball sampling method was used. This method of sampling is considered more efficient in crawling the web and it can capture the real network scenario better (Papacharissi & Mendelson, 2011) and it also better reflects the nature of online social networks that function in the same way where everyone is connected through many webs of networks. The initial participants were selected from the researcher's list of friends on Facebook and contacted through their Facebook message or wall. This was done as Facebook is a closed online social networking site in which one must have a social connection in order to communicate with other social connections on

Facebook. Facebook users usually do not allow public or strangers to post or message them on their wall or Facebook message. Thus, it is more appropriate to snowball the initial participants from the researchers' list of known friends and obtain more and more connections to other users' extended network mutual friends. An open invitation was also posted on the researcher's wall to invite participants to answer the online survey and was forwarded to other's walls or private messaged on Facebook. Prior research has shown that the validity of any research methodology relying on volunteers is contingent upon the ability and willingness of volunteers to provide meaningful responses (Gosling, Vazire, Srivastava, & John, 2004). Moreover, participants from self-selected samples provide clearer, more complete responses as compared to participants who are forced or obligated to answer surveys (Hsu, Ju, Yen, & Chang, 2007).

The online survey screened eligible participants in the first four preliminary questions of the online survey. Participants had to answer preliminary questions on their age, Facebook membership, nationality and if they have shared their photos with their online network on Facebook. If the participants did not fall within the criteria of this research, the survey will proceed to the next section of the questionnaire. If the participants satisfy the preliminary criteria, the survey will proceed to the next section of questionnaires. Thereafter, the participants would be requested to snowball the survey by asking their Facebook friends to complete the survey by posting it on their wall or sending it to their friends on Facebook. The snowballing

process continued until a sufficient number of participants were obtained. The survey also ensured that the same person does not repeat the same survey as the counter of our survey website is able to automatically compute unique visitors who have answered our survey. The online survey with regards to the 2013 version of Facebook was conducted until enough participants were reached and the duration of this exercise was from November 2013 to April 2014.

3.5 Questionnaire Design and Measurement

This study was quantitative in nature. A quantitative approach is typically considered a more scientific approach and the purpose of quantitative studies is to generalize the findings and project the research findings onto the larger population through an objective process. The data collected through a subset of the population can be examined, tested and the results can be used and replicated in a larger population. The hypothesis and research questions governed how data is collected as well as the method of statistical analysis used to examine the data (Creswell, 2002). It is a good fit for deductive approaches where its theory and hypothesis justifies the variables, purpose, and direction of the narrowly defined research questions. Moreover, results are derived from data collection and measured through statistical analysis (Thorne & Giesen, 2002).

An online questionnaire was used in this study through Google Docs. A web-based online survey was selected as it has some advantages over the traditional paper-based survey. The advantages include having lower costs, faster responses, geographically unrestricted sample and higher response rate (Kaplowitz, Hadlock, & Levine, 2004). The emergence of the internet has bridged the gap of geographical divide and users are able to connect to online social networking sites such as Facebook anywhere and anytime as long as there is an internet connection. The aim of the research is also to sample the online population beyond physical geographical boundaries. Acquisti and Gross (2006) also showed that in a comparison between survey and data from actual profiles, the information provided by the participants were accurate with a 77.84% of the answers matched perfectly.

The online questionnaire consisted of a total of 59 questions and included Facebook users' demographic data, users' general Facebook use, online photo sharing behaviours scale on Facebook and questions on intrinsic and extrinsic motivations adapted from prior studies and adapted to fit into the Facebook context. Questions that measures users' online privacy concern towards online photo sharing on Facebook were also measured. All the scales were validated in the original studies. They were also validated again in the present study. The online questionnaire consisted of four parts: Part A: demographic data (eight items), Part B: Facebook usage (11 items), online photo sharing behaviours (5 items), Part C: Intrinsic motivation (6 items-

enjoyment-(3 items, commitment-3items) and extrinsic motivation (13 items-self-development (3 items), reputation-4 items, reciprocity-6 items), and lastly, Part D: 16 items regarding online privacy concern on Facebook photo sharing.

3.5.1 Demographic data. For Part A, the first four questions were preliminary questions to see if the participants were eligible to answer the online questionnaire. The four determining questions were the participants' age, membership of Facebook, their nationality and if they have shared photos with others on Facebook. Other demographic information collected were such as the participants' current residency (Malaysia or overseas), gender (male, female), occupation (government institution student, private institution student, self-employed, company employed, unemployed, and others) and level of education (PMR, SPM, Pre-U, Diploma, Bachelor Degree, Masters and others). There was a total of eight items in this section.

For the participants age, participants were given a range of ages from 18-34 to choose from. Participants who were below 18 or above 34 had the option of "others" to choose from and the survey will not proceed to the next section of the questionnaire. Similarly, for the questions on membership of Facebook, nationality, and if they have shared photos on Facebook with others, participants who answered "Yes" for being a member of Facebook, Malaysian, and also answered "Yes" to have shared photos on Facebook were able to proceed with the online questionnaire. However, if the participants do

not fall within the criteria of this research, in which the participants answered “ No” for membership of Facebook, Non-Malaysian, and has not shared photos on Facebook, the survey will not proceed to the next section of the questionnaire.

3.5.2 Facebook usage. Questions in Part B were based on the participants’ Facebook use and also their online photo sharing behaviours on Facebook. Participants were asked to indicate how long they have been members of Facebook by filling up an empty blank. Participants were also asked how many friends they have in their Facebook account. Also, the following questions on how much time they spend on Facebook on a typical weekend, a typical weekday and a typical week. For the weekday and weekend, answer options for the participants ranged from none to 24 hours, with a 5 hour interval for each option (none, 1-5 hours, 6-10 hours, 11-15 hours, 16-20 hours, 21-24 hours). The question on participants’ Facebook usage on a typical week ranged from none to seven days a week.

In order to get a general overview of what Facebook users are doing on Facebook , participants were also required to rate the frequency of activities they usually do on Facebook in a typical day with a five point Likert scale (coded 1 for Never, 2 for Rarely, 3 for Sometimes, 4 for Often, and 5 for Always). Activities were such as photo related activities (looking, tagging, commenting, sharing of photos), profiles (looking at other people’s profiles),

news feed (reading one's news feed), wall/timeline (reading post on one's own wall, or others), notes (posting or reading notes), group (looking, creating, and interacting in groups), events (responding, creating, and interacting in events), games (playing games), and apps (using additional apps linked to Facebook).

The following questions focused on details of participants' online photo sharing. Participants were also asked to fill in how many photos they have currently shared on Facebook. A clear instruction was given that participants should only take into account the photos they have shared and not photo others have shared of them. Participants were also required to rate what type of photos they usually share. The types of photos were separated based on seven types: self-portrait, friends, family, events (birthdays, holidays, weddings, graduation, prom, parties, road trips, etc), scenes (landscapes, places, etc), objects (things, food, etc), pets/animals (Houghton et al., 2013). They were also asked to rate from a five point Likert scale (coded 1 for Never, 2 for Rarely, 3 for Sometimes, 4 for Often, and 5 for Always) on how often they adjust their privacy setting when sharing photos on Facebook. The next question required participants to rate the frequency from a five point Likert scale (coded 1 for Never, 2 for Rarely, 3 for Sometimes, 4 for Often, and 5 for Always) of whom they share their photos with (public, friends, friends except acquaintances, only me, and custom settings).

3.5.3 Online photo sharing behaviours scale. The next part of the online questionnaire was the online photo sharing behaviours scale. This scale was adapted from Hsu and colleagues' (2007) knowledge sharing behaviours scale (KSB). The KSB scale was used to measure users' knowledge sharing behaviours in an online community, in which it consists of five items, measuring the frequency of knowledge transmission such as sending or presenting any form of knowledge sharing to potential recipients such as sharing personal opinions, sharing materials, commenting and sharing information. (Davenport & Prusak, 1998; Hsu et al., 2007). The five items of the scale were 1) the frequency of sharing, 2) spending a lot of time, 3) actively sharing, 4) involvement in subsequent interactions and 5) variety of content shared. The reliability of the scale used in Hsu and colleagues' (2007) research was reported to be at an acceptable level ($\alpha = .93$). The reliability of the scale is very reliable as the higher the score, the more reliable the scale is, with a benchmark of 0.7 as an acceptable reliability coefficient.

Online photo sharing allows users to upload, organize and share their digital photos with others in their online community (Marlow et al., 2006). Moreover, a typical online photo sharing session on Facebook, similar to sharing knowledge, allows users to frequently share photos whenever and as often as they want, actively share information such as descriptions and metatags (title of album and photos, descriptions of photos, place the photo was taken, date, tags and hashtags), involving themselves in subsequent interactions such as responding to comments and "likes" from others, as well

as sharing various types of photos with others. Prior research on photo sharing so far has yet to use a scale to measure photo sharing behaviour but rather they used the “number of photos shared” (Hum et al., 2011; Nov & Ye 2009; Nov et al., 2009, Nov et al., 2010;) in the system data or interviews (Ames & Naaman, 2007; Burke et al., 2009; Miller & Edward, 2007) to test this against other variables. Thus, the KSB scale was chosen to be adapted to this study. To adapt it to the photo sharing behaviour scale for this study, the “knowledge sharing activities” term was replaced with “photo sharing”. All items were measured with the five-point Likert scale that ranges from strongly disagree to strongly agree (1- Strongly disagree; 2- Disagree; 3- Neutral; 4-Agree; 5- Strongly Agree). To ensure that the adapted test was reliable as well, a reliability test was run with a pilot test consisting of 60 participants. The level of reliability was still acceptable ($\alpha = .78$).

3.5.4 Enjoyment scale. The intrinsic motivation of enjoyment scale was adapted from Venkatesh (2000). This scale was also used in other researches such as Wasko and Faraj (2005) who studied the motivations of software users, as well as Nov and colleagues (2009) who studied motivations on online photo sharing on Flickr. The scale had three items measuring enjoyment; each item was measured on a five point liker scale, indicating their level of agreement or disagreement to each statement (1- Strongly disagree; 2- Disagree; 3- Neutral; 4-Agree; 5- Strongly Agree). Items of the scale was adapted to better fit the Facebook context. The item “I find using the system to be enjoyable” was changed to “I find sharing my photos on Facebook

enjoyable”. The reliability of the scale used in previous studies were all 0.70 and above, demonstrating a good and acceptable reliability rate. Of such, Venkatesh’s (2000) study showed a Cronbach alpha of 0.93, Wasko and Faraj (2005) had a Cronbach alpha of 0.88, and Nov and colleagues (2009) had a Cronbach alpha of 0.76. The reliability for this study was validated again and also showed an acceptable level ($\alpha = 0.88$).

3.5.5 Commitment scale. The next part of the questionnaire measured the commitment of the participants to share photos with their online community. The commitment scale was measured by a scale used by Wasko and Faraj (2005). The three items of the scale was adapted to better fit the Facebook context as Wasko and Faraj (2005) studied motivations for contributing knowledge on electronic networks. In Nov and colleagues’ (2009) study, the authors also adapted the scale to fit it in the context of online photo sharing on Flickr. For example, the item “I would feel a loss if the Message Boards were no longer available” was modified to “I would feel a loss if I can no longer share my photos with my friends on Facebook”. The scale was measured on a five point liker scale, indicating their level of agreement or disagreement to each statement (1- Strongly disagree; 2- Disagree; 3- Neutral; 4-Agree; 5- Strongly Agree). In Wasko and Faraj’s (2005) study, Cronbach alpha was 0.90, where else in Nov and colleagues’ (2009) study, Cronbach alpha was 0.78. Both studied showed acceptable reliability for the scale used. In this current study, the Cronbach alpha was 0.81, an acceptable level of reliability.

3.5.6 Self-development scale. The self-development motivation was adapted from a study by Oreg and Nov (2008). The scale's reliability coefficient was at an acceptable level ($\alpha = 0.82$). Nov and colleagues (2009) also adapted the scale in their study on online photo sharing in the context of Flickr. The reliability coefficient was tested and showed again an acceptable level with a Cronbach alpha of 0.86. An example of the items adapted to the context of photo sharing on Facebook : "Sharing my photos online with my friends on Facebook provides me with a means of developing my skills". The three itemed scale was measured on a five point liker scale, indicating their level of agreement or disagreement to each statement (1- Strongly disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree). For this current study, the reliability of the adapted scale was tested and showed an acceptable level of a Cronbach alpha of 0.92.

3.5.7 Reputation scale. Next, the motivation of reputation was measured by a scale used by Wasko and Faraj (2005) and Hung and colleagues (2010). The Cronbach alpha showed for the scale was at an acceptable level of 0.91 (Wasko & Faraj, 2005) and 0.79 (Hung et al., 2010). In another study, the scale was adapted to fit the context of online photo sharing on Flickr in a study by Nov and colleagues (2009) and had a Cronbach alpha for of 0.77. As this current study also focuses on online photo sharing on

Facebook, the scale was adapted to fit the context of Facebook. Thus, the four item scale was reworded to fit into context, from “Participating in the virtual community can enhance my reputation in my professional field” to “Sharing my photos on Facebook can improve my reputation in my professional field or area of interest”. Similarly, the scale was measured on a five point liker scale, indicating their level of agreement or disagreement to each statement (1- Strongly disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree). Reliability was once again tested for this current study, with yield an acceptable level ($\alpha = 0.88$).

3.5.8 Reciprocity scale. The motivation of reciprocity, a six item scale, was also adapted from Wasko and Faraj (2005) and Hung et al. (2011). Wasko and Faraj had only two items and the Cronbach alpha of the scale in their study showed a favourable level ($\alpha = 0.90$). Hung et al. (2011), who also used the reciprocity scale in their study, had four items and showed a Cronbach alpha of 0.72. For this current study, items from both authors were put together. The reliability of the scale was tested and results showed a good level of reliability, with a Cronbach alpha of 0.90. To better fit the scale for the context of this current study, the items were modified accordingly. For example: “When I share my knowledge through a group meeting, I believe that my queries for knowledge will be answered in the future” was adapted to “When I share my photos with my friends on Facebook, I expect my friends to share their photos with me in return in the future”. The items were measured on a five point liker scale, indicating their level of agreement or disagreement

to each statement (1- Strongly disagree; 2- Disagree; 3- Neutral; 4-Agree; 5- Strongly Agree).

3.5.9 Online privacy concern scale. The last section of the questionnaire measured participants' online privacy concern. The 16 item scale was adapted from Buchanan and colleagues (2007) who formulated the scale based on their compilation of privacy scales from prior research. The online privacy concern items measuring users' attitudes reflected the general internet privacy attitudes and concerns of internet users. The reliability of the scale from their research showed a Cronbach alpha of 0.93. For this current study, the items were reworded to better fit into the context of Facebook rather than for general internet use. For example, "In general, how concerned are you about your privacy while you are using the internet?" was reworded to "In general, how concerned are you about your privacy while sharing photos on Facebook?". The reliability for this current study was Cronbach alpha of 0.95.

3.6 Data Analyses

SPSS 17.0 was used to run statistical analysis and data management collected from the respondents. For H1, Pearson R was used to see the significant correlations between intrinsic motivation and Malaysian young adults' online photo sharing behaviours on Facebook. Pearson R correlation

was also used for H2 to test the significance between extrinsic motivation and Malaysian young adults' online photo sharing behaviours on Facebook. In order to see which motivation has a stronger significance in Malaysian young adults' online photo sharing on Facebook, multiple regression was used. Pearson R was used for H4 to test for the significant relationship between online privacy concern and Malaysian young adults' online photo sharing behaviours on Facebook. Next, to see if there is a significant difference between males and females in Malaysian young adults' online photo sharing on Facebook for H5, the independent T test was used. Lastly for H6, the independent T test was used to see if there is a significant difference between males and females for online privacy concern and Malaysian young adults' online photo sharing behaviours on Facebook.

3.7 Validity and Reliability Test for Pilot Test

To test the reliability of the research questionnaire, a pilot test was done among 60 respondents by giving out the online survey at random through Facebook. Also, Cronbach's alpha value for all the scales were tested to ensure the validity and reliability of the questionnaire before the actual questionnaire was given out. A reliability coefficient of 0.70 or higher was the benchmark as it was is considered acceptable in social science researches. Table 3.1 shows the comparison between the Cronbach's alpha in previous studies and Cronbach's alpha of this study from the pilot test conducted.

Table 3.1: Reliability of scales

Scale	Previous studies (α)	Current study (α)
Photo sharing behaviours (Hsu et al., 2007)	.93	.78
Enjoyment (Venkatesh., 2000)	.93	.88
Commitment (Wasko & Faraj., 2005)	.90	.82
Sum of intrinsic	-	.85
Self-Development (Nov et al., 2009)	.86	.92
Reputation (Wasko & Faraj., 2005)	.91	.88
Reciprocity (Wako & faraj., 2005)	.90	.90
Sum of extrinsic	-	.93
Privacy concern (Buchanan et al., 2007)	.93	.95

3.8 Chapter Summary

In summary, to study the impact of users' online photo sharing behaviours on Facebook, this research used a quantitative approach. Non-probability purposive convenient sampling was used to obtain the participants for this study. The criteria that the respondents must meet were such as the participant 1) must be between ages 18 to 34, 2) must be a Malaysian, 3) must be a member of Facebook and; 4) have shared photos on Facebook. The online questionnaire was distributed through Facebook to determine the motivation of Malaysian young adults' online photo sharing behaviours on Facebook, as well if their online privacy concern affects their online photo sharing behaviours. The variables of the study consist of the independent variables of intrinsic motivation (enjoyment and commitment), extrinsic motivation (self-development, reputation, and reciprocity), and the dependent variable is

Facebook users' online photo sharing behaviours. Users' online privacy concern will also be into as an independent variable and to see if it impacts their dependent variable of their online photo sharing behaviours on Facebook. SPSS was used to run statistical analysis and data management collected from the respondents, and test such as Pearson R, multiple regression, and independent T test was used to test the hypotheses. The pilot test conducted showed that the reliability of the scales are all above 0.70 for the Cronbach's alpha.

CHAPTER 4

RESULTS

After discussing the methodology in the previous chapter, this chapter will provide a detailed analysis and answer the hypothesis of this current study. Correlations of key variables were tested for significance to determine how the independent variables were related to the dependent variable. The multiple regression analysis was also used to determine the strength of the motivations in online photo sharing behaviour. T-test for gender differences among variables was also explored.

4.1 Demographic Profile of Respondents

Out of 501 respondents, a total of 422 valid participants were used in this study. This was a respond rate of 84%. Participants' age were between 18-34 years old ($M = 24$, $SD = 3$). Most of the participants' current residence was in Malaysia (94.1%), and only 5.9 % were residing overseas. Slightly more than half of the participants were female (59.2%). Male participants consist of 40.8% of the respondents. In terms of users' occupation, 30.8 % of the participants were still students studying in government institutions while 29.9 % were students in private institutions. A total of 30.3 % of the participants were company employed worker, only 2.8% of the participants were self-

employed and only 6.2% of the participants were unemployed. In the context of educational qualification about half of the participants' had a bachelor degree (49.5%). About 29.4% of them had completed pre-U education such as Form six, A level, foundations or its equivalent. 10% of the participants had a Diploma. A small percentage of participants were at the lower end and higher end of the spectrum, in which only 7.1% of the participants obtained SPM level of education, where else 4% had a master degree.

4.2 Facebook Usage

4.2.1 Membership. Participants were also asked on their general Facebook usage. Membership on Facebook was an average of 3.55 years (*SD* = 0.82). Majority of the participants, 83.9% has been a member of Facebook for four to seven years, 9.7% were members for more than eight years, while 6.4 % were members for less than three years.

4.2.2 Friends. Majority of the participants (28.0 %) had more than 900 friends on Facebook. Others recorded having fewer friends in their Facebook account. About 21.8 % of the participants had between 300 to 500 friends while only 26.8 % had fewer than 500 to 700 friends on Facebook. Only 18.2 % had friends between 700 to 900 whereas 17.8 % of them had friends between 300 to 500. Those who had friends between 100 to 300 were only

7.8%. Only a small minority of 5.2 % of the participants had more than 2000 friends in their profile and in the other end of the spectrum, only 1.2 % of them had fewer than a 100 friends in their profile.

4.2.3 Time spent. The findings on the total time spent on Facebook are as follows. Majority of the participants that is 77.5% used Facebook on a daily basis. On a typical weekday, 73.2 % of participants spent between one to five hours on Facebook while 14.5% of the participants spent between five to 10 hours on Facebook. About 3.8 % spent more than 10 hours on Facebook. 1.2 % of them spent less than an hour on Facebook. Similarly, on a typical weekend, 68.7 % spent between one to five hours on Facebook, while 19.4% spent between five to 10 hours on Facebook. The rest either spent less than an hour on Facebook (2.6 %) or more than 10 hours on Facebook (9.2 %).

4.2.4 Activities on Facebook. Participants were asked to rate the frequency of the typical activities they would do when they are using Facebook. To highlight the findings, the features such as newsfeed, looking at walls, updating status, photo related activities, messaging, viewing profiles are a more popular activity on Facebook. For newsfeed, participants use this feature on Facebook the most. 47.6% of them responded that they always use this feature when on Facebook, 37.7% responded often. Users also commonly used their walls on Facebook, in which 33.2% of the participants reported that they often spend time reading or posting information on their own wall as well

as their friends' walls. About 32.5% of the participants reported that they sometimes do this. When users were asked about the frequency of updating their status, 35.8% of the participants would sometimes update their status on Facebook, 28.9% responded rarely, 22.3% responded often. In regards to photo related activities done on Facebook such as looking photos, sharing photos, tagging photos, and commenting on photos, 40% of the participants stated that they would sometimes do photo related activities on Facebook while 30% of them often do it when on Facebook. The messaging feature on Facebook is also a more popular activity on Facebook in which 34.8% of the participants said that they often use this feature on Facebook, 25.8% responded sometimes, 27.3% responded always. For the usage of the profile application on Facebook, 42.9% of the participants reported that they sometimes look at their own and other people's profile, while 39.1% of them rarely does it.

Using the groups feature, playing games on Facebook, editing friends in their list, using the event feature, writing and sharing notes, and using other applications are less commonly done on Facebook. When asked how frequently do the participants use the groups feature on Facebook, in which participants are able to create groups as well as interact within the group, 31.8% of the participants said they would sometimes use this feature while 30.8% of them would rarely use this feature. Playing games on Facebook was also a less common activity done on Facebook in which 41.2% of the participants responded they would never play games on Facebook and 38.2%

responded rarely. When participants were asked the frequency of them using the friend list feature such as adding friends, removing friends or editing their friends list, 38.4% of them responded that they would rarely use this feature while 32.9% responded never. The event feature on Facebook was also not commonly used on Facebook in which 48.1% of the participants responded they rarely used this feature on Facebook and 32.9% responded sometimes. Writing notes and sharing them with others is also less commonly done on Facebook with 50.7% of the participants noted that they would rarely write notes on Facebook and 20.6% mentioned that they would sometimes write notes. Lastly, using other applications on Facebook that are often linked to Facebook are also not common in which 38.4% responded rarely and 32.9% responded never use other apps on Facebook. Table 4.1 shows a summary of the frequency of activities commonly done on Facebook.

Table 4.1: Activities on Facebook

Facebook activities	Never(%)	Rarely(%)	Sometimes(%)	Often(%)	Always(%)
Photo-related	5.0%	15.2%	40.0%	30.0%	14.2%
Profile-related	2.8%	39.1%	42.9%	9.7%	5.5%
News Feed	0.7%	4.0%	10.0%	37.7%	47.6%
Walls	1.2%	14.5%	32.5%	33.2%	18.7%
Notes	18.0%	50.7%	20.6%	7.8%	2.8%
Groups	5.9%	30.8%	31.8%	21.3%	10.7%
Events	5.7%	48.1%	32.9%	11.1%	2.1%
Messaging	0.9%	11.1%	25.8%	34.8%	27.3%
Updating status	4.0%	28.9%	35.8%	22.3%	9.0%
Friends	32.9%	38.4%	17.1%	6.9%	4.7%
Games	41.2%	38.2%	11.1%	6.6%	2.8%
Other apps	32.9%	38.4%	17.1%	6.9%	4.7%

4.3 Online Photo Sharing

4.3.1 Number of shared photos. Participants were asked how many photos they have currently shared on Facebook. 29.1% of the participants shared 100 to 499 photos on Facebook. 18.2% of them shared photos in the range of 500 to 999 photos. 17.3% had shared fewer than a 100 photos on Facebook. 15.9% of the participants shared between 1000 to 1499 photos on Facebook. 7.3% shared about 1500 to 1999 photos. 2.8% responded that they have shared between 2000 to 2499 photos, and another 2,8% responded that they have shared between 3000 to 3499 photos. 2.4% responded they have shared between 2500 to 2999 photos on Facebook. 4.0% of them shared more than 3500 photos on Facebook. Figure 4.1 shows the number of photos shared on Facebook.

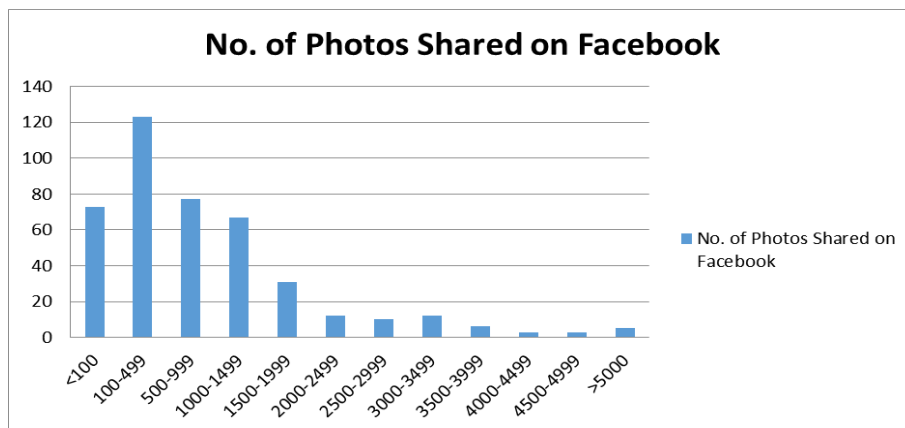


Figure 4.1: Number of photos shared on Facebook

4.3.2 Types of photos. Respondents were also asked the frequency of the type of photos (events, self-portrait, friends, family, pets/animals, scenery, and objects) they would usually share on Facebook. To highlight interesting findings, the more popular types of photos that would be more frequently shared were photos of friends and events. Family, scenery, and objects comes in next. Pets and self-portraits were reported to be less frequently shared. About 40.5% of the responded said they would sometimes share photos of their friends and 37.2% would often share photos of their friends. For events, 37.7% of the respondents said they would often share photos of events on Facebook while 35.1% responded sometimes. On the frequency of sharing family photos on Facebook, 44.1% of the responded said they would sometimes share family photos while 26.8% responded rarely. For photos on scenery, 37.7% of the responded said they would sometimes share photos of scenery and 24.6% responded often. For photos on objects, 37.9% of the responded said they would sometimes share photos of objects while 22.5% responded often. Photos on pets and animals were not so popularly shared on Facebook as 33.6% of the responded said they would never share photos of pets while another 33.4% of the responded said they would seldom share photos on pets. Self-portrait photos were less frequently shared as 41.7% of them said they would rarely share photos featuring themselves only while 29.6% responded sometimes. Table 4.2 shows the percentage of the types of photos shared on Facebook.

Table 4.2: Types of photos shared on Facebook

Type of Photos	Never	Rarely	Sometimes	Often	Always
Events	2.4%	11.4%	35.1%	37.7%	13.5%
Self-portrait	10.7%	41.7%	29.6%	14.0%	4.0%
Friends	1.4%	12.3%	40.5%	37.2%	8.5%
Family	6.9%	26.8%	44.1%	17.1%	5.2%
Pets/animals	33.6%	33.4%	21.6%	8.1%	3.3%
Scenery	7.6%	23.5%	37.7%	24.6%	6.6%
Objects	7.8%	22.0%	37.9%	22.5%	9.7%

4.3.3 Privacy settings. Respondents were always asked if they adjust the privacy settings of their photos that they share on Facebook and also to whom they would usually share photos with. Respondents were aware of the options available for them to adjust their privacy settings and used it when sharing photos on Facebook as about 27.5% of the respondents said they would sometimes adjust their privacy settings before sharing them on Facebook, 25.8% said they would always adjust their privacy settings on their photos before sharing them on Facebook, and 21.1% said they would often do so. Only a small percentage of 15.2% said they would rarely adjust it, and 10.4% said they would never adjust the privacy settings on their photos.

Respondents were also asked to rate the frequency of them adjusting their privacy settings to specific settings such as to the public, friends, friends except acquaintances, private (self only), or to a custom set of people when sharing photos on Facebook. The more popular privacy settings used were set to friends, and friends except acquaintances. In terms of sharing photos with friends, 44.8% of the respondents said they would always share photos with

their friends on Facebook, 35.3% said often, 14.7% said sometimes, 4% said rarely, and 1.2% said never. About 24.6% of the respondents said they would sometimes select the option to share their photos with the friends with the exception of the acquaintances on Facebook, 21.6% responded never, 20.9% responded often, 20.1% responded rarely, and 12.8% responded always.

Privacy settings set to public, private (self only), and custom were rarely set. For public photos, 35.1% of the respondents said that they would never share photos with the public, 27.5% responded rarely, 16.1% responded sometimes, 14% responded often and 7.3% responded always. About 37.7% of the respondents said they would never share photos with themselves only, 33.6% said rarely, 18% said sometimes, 7.6% said often, and 3.1% said always. About 25.4% of the respondents said they would never share their photos on Facebook with a custom selection of people, 25.1% said they would sometimes do so, 24.6% said rarely, 12.8% said often, and 12.1% said always. Table 4.3 shows the summary of the percentage of types setting their privacy settings respondents set when sharing photos on Facebook.

Table 4.3: Privacy settings on Facebook

Privacy Settings	Never	Rarely	Sometimes	Often	Always
Adjusting privacy settings	10.4%	15.2%	27.5%	21.1%	25.8%
Public	35.1%	27.5%	16.1%	14.0%	7.3%
Friends	1.2%	4.0%	14.7%	35.3%	44.8%
Friends with the exception of the acquaintances	21.6%	20.1%	24.6%	20.9%	12.8%
Private (Self)	37.7%	33.6%	18.0%	7.6%	3.1%
Custom	25.4%	24.6%	25.1%	12.8%	12.1%

4.4 Hypothesis Testing

The hypotheses of this study was tested to determine the strength of the relationship as well as the direction of the relationship between the dependent variable and the independent variables. Thus, SPSS was used to determine the relationship between intrinsic and extrinsic motivations and online photo sharing behaviours on Facebook, the strength of the motivational factors and users' online photo sharing behaviour on Facebook, the gender differences in users' online photo sharing behaviours on Facebook, users' online privacy concerns affect their online photo sharing behaviours on Facebook, and the gender differences in users' online privacy concern in regards to online photo sharing behaviours on Facebook.

4.4.1 Hypothesis one. For hypothesis one, the Pearson correlation analysis method was used to determine if there is a significant relationship between intrinsic motivations (Independent variable) and online photo sharing behaviours (Dependent variable) among Malaysian young adults on Facebook. The results are shown in Table 4.4.

Table 4.4: Pearson Correlation on intrinsic motivations and online photo sharing behaviour

Constructs	<i>M</i>	<i>SD</i>	Online Photo Sharing Behaviour (<i>r</i>)
Intrinsic	18.35	3.88	.603**
Enjoyment	10.17	2.00	.582**
Commitment	8.18	2.48	.475**

Note. * $p < .05$; ** $p < .01$, *** $p < .001$

Results showed that there was significant positive correlation between intrinsic motivations and online photo sharing behaviour among Malaysian young adults on Facebook ($r = .60, p < .001$). When looked at the individual intrinsic motivations, namely the intrinsic motivation of enjoyment and also the intrinsic motivation of commitment, both show significant positive correlation with online photo sharing behaviours on Facebook, as well as commitment with online photo sharing behaviours on Facebook. For the intrinsic motivation of enjoyment, results showed a significant positive

correlation between enjoyment and online photo sharing behaviours on Facebook ($r = .58, p < .001$). Results also showed a significant positive correlation between commitment and online photo sharing behaviours on Facebook ($r = .47, p < .001$). Hypothesis one therefore is accepted and the null hypothesis rejected. The higher the level of intrinsic motivations, the higher the level of online photo sharing behaviours were displayed.

4.4.2 Hypothesis two. The Pearson Correlation analysis method was also used to determine if there is a significant relationship between extrinsic motivations (Independent variable) and photo sharing behaviours (Dependent variable) among Malaysian young adults on Facebook for Hypothesis two. The results are shown in Table 4.5.

Table 4.5: Pearson Correlation on extrinsic motivations and online photo sharing behaviours

Constructs	<i>M</i>	<i>SD</i>	Online Photo Sharing Behaviour (<i>r</i>)
Extrinsic	16.11	3.33	.420**
Self-Development	8.12	2.70	.345**
Reputation	11.08	3.59	.407**
Reciprocity	16.59	4.70	.317**

Note. * $p < .05$; ** $p < .01$, *** $p < .001$

The results showed that there was significant positive correlation between online photo sharing behaviour and extrinsic motivations ($r = .40, p < .001$). When looked at the individual extrinsic motivations namely the extrinsic motivation of self-development, reputation, and reciprocity, all showed significant positive correlation with online photo sharing behaviours on Facebook. For the extrinsic motivation of self-development, results showed a significant positive correlation with online photo sharing behaviours on Facebook ($r = .34, p < .001$). Results also showed a significant positive correlation between reputation and online photos sharing behaviours on Facebook ($r = .41, p < .001$). A significant positive correlation was also found between reciprocity and online photo sharing behaviour on Facebook ($r = .32, p < .001$). Hypothesis two therefore is accepted and the null hypothesis rejected. The higher the level of extrinsic motivations, the higher the level of online photo sharing behaviours were displayed.

4.4.3 Hypothesis three. The Multiple Regression method was used to examine the strength of the motivational factors in Malaysian young adult's online photo sharing behaviour on Facebook. Both intrinsic and extrinsic motivation were added into the model. Results are shown in Table 4.6.

Table 4.6: Multiple Regression for motivations in online photo sharing behaviour

	Motivations in Online Photo Sharing					R^2
	B	SE	β	t	$Sig.$	
Model						0.39
(Constant)	5.50	0.70		7.82	.000	
Enjoyment	0.73	0.07	0.44	9.82	.000	
Commitment	0.26	0.07	0.19	3.64	.000	
Self-development	0.02	0.06	0.01	0.25	.806	
Reputation	0.11	0.06	0.12	1.98	.048	
Reciprocity	-0.02	0.40	-0.02	-0.43	.669	

Note. * $p < .05$; ** $p < .01$, *** $p < .001$

Results showed significance, $F(5, 416) = 53.85$, and results showed Both the intrinsic motivation of enjoyment, $\beta = .44$, $t(421) = 9.82$, $p < .001$, and commitment. $B = .19$, $t(421) = 3.64$, $p < .001$, showed great significance and were stronger predictors compared to extrinsic motivations of self-development, $\beta = .013$, $t(421) = .25$, $p = .806$, reputation, $\beta = .12$, $t(421) = 1.98$, $p = .048$, and reciprocity, $\beta = -.023$, $t(421) = -.43$, $p = .669$, that were all not significant. Hypothesis three therefore is accepted and the null hypothesis rejected which intrinsic motivations showing stronger correlations compared to extrinsic motivations in regards to online photo sharing behaviours on Facebook. $F(5, 416) = 53.85$, $R^2 = 0.39$.

4.4.4 Hypothesis four. The Pearson Correlation analysis method was used to determine if there is a significant relationship between online privacy concerns (Independent variable) and online photo sharing behaviours (Dependent variable) among Malaysian young adults on Facebook ($M = 16.11$, $SD = 3.32$). The results showed that there was no significant correlation between photo sharing behaviour and privacy concerns ($r = .06$, $p = .181$). Based on the results, the hypothesis four was rejected as there was no significant in the relationship between the online privacy concerns among Malaysian young adults and their online photo sharing behaviours on Facebook.

4.4.5 Hypothesis five. For Hypothesis five in which it states that there is a significant difference between males and females in Malaysian young adults' online photo sharing behaviour on Facebook, the Independent Sample T-test was used. Significant value in Levene's Test for equality of variances is $p=.720$, which is higher than $.05$. Thus, results are read from the top row as equality variance can be assumed. The 2-tailed p -value Significant is $p=.942$, which is greater than $.05$, thus it can be concluded that there is no statistically significant difference between males and females. The results of the independent sample t-test showed that there was no significant difference between males ($M = 16.13$, $SD = 3.34$) and females ($M = 16.10$, $SD = 3.33$) in their online photo sharing behaviour on Facebook, $t(420) = .072$, $p = .720$. Therefore, hypothesis five is rejected as there is no significant difference

between males and females in regards to their online photo sharing behaviour on Facebook.

4.4.6 Hypothesis six. For Hypothesis six in which it states that there is a significant difference between males and females for online privacy concern and Malaysian young adults' online photo sharing behaviour on Facebook, the Independent Sample T-test was used. Significant value in Levene's Test for equality of variances is $p=.333$, which is higher than $.05$. Thus, results are read from the top row as equality variance can be assumed. The 2-tailed p -value Significant is $p = .021$, which is less than $.05$, thus it can be concluded that there is a statistically significant difference between males and females. The results of the independent sample t-test showed that there was a significant difference between males and females in their online photo sharing behaviours on Facebook, $t(420) = -2.31, p = 0.021$. Males ($M = 60.98, SD = 12.78$) had higher online privacy concern than females ($M = 64.04, SD = 13.78$) in regards to their online photo sharing behaviours on Facebook. Hypothesis six is accepted as there is a significant difference between males and females.

4.5 Summary of Hypotheses Tests

Based on the results, hypothesis one was supported, in which there was significant positive correlation between online photo sharing behaviours and intrinsic motivations. Hypothesis two was also supported as there was significant positive correlation between online photo sharing behaviours and extrinsic motivations. Hypothesis three was also supported, in which the results show that intrinsic motivations was a significant and a stronger predictor compared to extrinsic motivations. Based on the results the hypothesis four was rejected as there was no significant in the relationship between the online privacy concerns among Malaysian young adults and their online photo sharing behaviours on Facebook. Hypothesis five was rejected as there was no significant difference between males and females in regards to their online photo sharing behaviour on Facebook. Hypothesis six, however, was supported and results showed that there was a significant difference between males and females in regards to their online privacy concerns on Facebook. Table 4.7 shows a summary of the results from the hypothesis testing.

Table 4.7: Summary of results from Hypothesis testing

Hypothesis	Results
H1: There is a significant relationship between intrinsic motivation and young Malaysian adults' online photo sharing behaviour on Facebook.	Supported
H2: There is a significant relationship between extrinsic motivation and young Malaysian adults' online photo sharing behaviour on Facebook.	Supported
H3: There is a significant difference in the relationship strength between intrinsic and extrinsic motivation in young Malaysian adults' online photo sharing on Facebook.	Supported
H4: There is a significant relationship between privacy concern and young Malaysian adults' online photo sharing behaviour on Facebook.	Not Supported
H5: There is a significant difference between males and females in young Malaysian adults' online photo sharing on Facebook	Not Supported
H6: There is a significant difference between males and females for privacy concern and young Malaysian adults' online photo sharing behaviour on Facebook.	Supported

CHAPTER 5

DISCUSSION

5.1 Findings

Based on the hypotheses of this study, several methods of analysis were used to determine the motivations behind young Malaysian adults' online photo sharing behaviours on Facebook. Of such, Pearson R correlation analysis was used to test H1, H2, and H4. The independent T test method was used to test H5 and H6. Lastly, the multiple regression method was used to test H3.

5.1.1 Hypothesis one. The first research question investigates the relationship between intrinsic motivations and online photo sharing behaviours among Malaysian young adults on Facebook. Hypothesis one hypothesized that there would be a significant relationship between intrinsic motivation and online photo sharing behaviours among Malaysian young adults on Facebook. Results supported the hypothesis in which results showed that there was significant positive correlation between online photo sharing behaviours and intrinsic motivations. When looked at the intrinsic motivations individual (enjoyment and commitment), results also showed that both variables of

enjoyment and commitment showed significant positive correlation with online photo sharing behaviours on Facebook. Thus, hypothesis one is accepted and the null hypothesis rejected. It can be confirmed that young Malaysian adults who were motivated by intrinsic motivations portrayed higher levels of online photo sharing behaviours on Facebook. Both the intrinsic motivation factors namely enjoyment and commitment influenced online photo sharing behaviours.

The findings for this hypothesis is consistent with previous study done on knowledge sharing behaviours as well as online photo sharing behaviours. Enjoyment and commitment were found to be positively correlated to knowledge sharing in online communities (Lakhani & Wolf, 2005). Nov (2007) also reinforced the study's finding, noting that users on Wikipedia were motivated intrinsically to contribute on Wikipedia. More importantly, this study's findings on intrinsic motivation also echoes previous research on online photo sharing which identified enjoyment and commitment as major factors in online photo sharing behaviours on Flickr, in which intrinsic motivations were strongly related to the quantity, quality and metadata of photo shared (Nov & Ye, 2009; Nov et al., 2009; Nov & Ye, 2010). This positive correlation with intrinsic motivations and online photo sharing behaviour suggests that Malaysian young adults are indeed motivated intrinsically to share their photos on Facebook. They not only enjoy the process of sharing photos with their Facebook online community, they also feel committed and obligated to share photos to keep their online community

updated about their life through the sharing of artifacts about themselves such as photos.

5.1.2 Hypothesis two. The second research question investigates the relationship between extrinsic motivation and Malaysian young adults' online photos sharing behaviours on Facebook. Hypothesis 2 stated that there is a significant relationship between extrinsic motivation and Malaysian young adults' online photo sharing behaviours on Facebook. Results showed that there was significant positive correlation between online photo sharing behaviours and extrinsic motivations. All extrinsic motivation such as self-development, reputation and reciprocity showed significant positive correlation with online photo sharing behaviours on Facebook. In short, hypothesis two, therefore, is accepted and the null hypothesis rejected. Malaysian young adults who were motivated by extrinsic motivations showed higher levels of online photo sharing behaviours on Facebook. Those who were motivated by the extrinsic motivation of self-development, reputation and reciprocity showed increased online photo sharing behaviours on Facebook. They seek to improve their skills, gain reputation as well as gain feedback from their Facebook friends when they share their photos on Facebook.

The findings in this study are consistent with the findings from previous research. Thus, findings from research that have looked into the

motivations behind knowledge sharing behaviours showed that software contributors placed greater emphases on extrinsic motivation (Chang & Chuang, 2011; Hung et al., 2011; Lampel & Bhalla, 2007; Oreg & Nov, 2008; Wasko & Faraj, 2005). Findings in this research also echo previous research that investigated artifact sharing online communities such as Flickr and YouTube. Nov & Ye (2009) linked that the trade-off between quality and quantity in online photo sharing in which users who were motivated by self-development and reputation were more concerned about the quality of their photos. Burke et al.'s (2009) study quantitatively examined photo contribution on Facebook showed that the motivation to share more photos are linked to users reputation and reciprocity when others distribute their photos and give feedback on the photos (Ames & Naaman, 2007; Burke et al., 2009). Huberman and colleagues' (2008) results showed that sharing YouTube videos were strongly correlated with attention received by others which could be translated to reciprocity and reputation.

5.1.3 Hypothesis three. The third research question looked into the relationship strength between intrinsic and extrinsic motivation in Malaysian young adults' online photo sharing behaviours on Facebook. It was hypothesized that there would be a significant difference in the relationship strength between intrinsic and extrinsic motivation in young Malaysian adults' online photo sharing behaviours on Facebook. Results showed that intrinsic motivation was a significant and a stronger predictor as compared to extrinsic motivation. A closer look at each motivation individually such as the intrinsic

motivations of enjoyment and commitment, and the extrinsic motivations of self-development, reputation, reciprocity and perceived encouragement showed that the intrinsic motivation of enjoyment, followed by commitment showed the greatest significance in regards to Facebook users' online photo sharing behaviours. Facebook users were highly motivated by the intrinsic motivation of enjoyment and commitment, driving them to display higher online photo sharing behaviours overall. Hypothesis three therefore is accepted and the null hypothesis rejected. Malaysian young adults were more motivated intrinsically to share photos on Facebook compared to being motivated extrinsically. Results are consistent with prior research that intrinsic motivations are strong factors of sharing (Nov & Ye, 2009; Nov et al., 2009; Lakhani & Wolf, 2005). Social capital theory also emphasizes that one's interpersonal communication and interaction in their social networks contribute to their behaviour (Coleman, 1990; Nahapiet & Ghoshal, 1998; Bandura, 1989).

Moreover, intrinsic motivations were stronger predictors due to the nature of the online social network of Facebook. Different social networks cater to different types of users, as well as different types of users could be present in the online network itself and hence results may vary from different social networks (Nov et al., 2009). Van House (2007) noted that Flickr members shared photos for different uses such as self-expression, relationship maintenance, life recording, etc. Wasko and Faraj (2005) reasoned that network-based interactions of such may be generalized rather than dyadic and

direct reciprocity may not be necessary for sustaining collective action. Extrinsic motivations were stronger factors for sharing behaviours in online networks that were more formal in nature non-personal (Huberman et al., 2008; Lampel & Bhalla, 2007; Nov, 2007; Oreg & Nov, 2008; Wasko and Faraj, 2005). Thus, users seeking external extrinsic rewards were shown in such online networks.

Facebook is more social in nature and this suggests it caters to a more intrinsic kind of fulfillment. The type of online social network that is social in nature and have known social connections on a more personal level, as it can be inferred that Facebook users indulge in sharing photos for intrinsic rewards. Descriptive data from this research supports the nature of Facebook is personal as the most common settings that users would share with is their friends. Moreover, participants mainly used photo sharing to share types of photos that were closely tied to social connections as the more popular types of photos that would be more frequently shared were photos of friends and events. Thus, although extrinsic motivations also contribute to online photo sharing on Facebook, comparatively, intrinsic motivations were stronger factors for online photo sharing on Facebook, suggesting that this type of online network promotes a more personal and dyadic kind of interaction between its users as it is based on the users' connections rather than strangers.

Membership length also suggests the differences in motivations in online sharing behaviours. Newcomers were more motivated extrinsically compared to veteran users that showed more intrinsic behaviours when conducting online sharing activities (Burke et al., 2009). This study's participants are members of Facebook on an average of 4 to 7 years, suggesting that they are veterans and are comfortable with their online network. They would not feel the need or pressure to prove themselves, establish themselves or gain reputation, and hence will not be extrinsically motivated to share photos online. Thus, intrinsic motivations such as enjoyment and commitment would be a greater motivator as they would have already gotten use to sharing photos on Facebook and would enjoy using the photo sharing application to stay connected, committed and update their online community.

5.1.4 Hypothesis four. Research Question four aims to investigate the relationship between Malaysian young adults' online privacy concern and if their concern is translated to their online photo sharing behaviours on Facebook. It was hypothesized that there will be a significant relationship between privacy concern and Malaysian young adults' online photo sharing behaviour on Facebook. Results showed that there was no significant correlation between online photo sharing behaviours and online privacy concerns. Thus, the hypothesis four was rejected as there was no significant relationship between the online privacy concerns and online photo sharing behaviours on Facebook. Higher privacy concerns did not lead to an increase

of online photo sharing behaviours on Facebook, and neither did it deter them from sharing photos.

In this study, descriptive statistics showed that users were conscious about their privacy settings and would make an effort to adjust their privacy settings with only a small percentage not adjusting it. However, Facebook users' being conscious on their privacy settings or concern over their online privacy did not spur them to affect their online photo sharing behaviours there as there was no significant correlation between photo sharing behaviour and privacy concerns.

The results is in line with prior research that has noted the inconsistency between users' privacy concern and their behaviour (Acquisti & Gross, 2006; Ahern et al., 2007; Debatin et al., 2009; Stutzman, 2006;). The lack of privacy concern of users was suggested that the perceived benefits of using the online social networking site and how deeply Facebook has integrated into users' daily routine as an indispensable tool to maintain one's social capital and to maintain communication through technology outweighs the risks of sharing personal content, and users often regarded risk and negative consequences as a third person (Debatin et al., 2009).

5.1.5 Hypothesis five. Research questions five looks at the gender differences in Malaysian young adults' online photo sharing behaviours on Facebook. Hypothesis five states that there is no significant difference between males and females in Malaysian young adults' online photo sharing on Facebook. Results showed that there is no statistically significant difference between males and females. Hypothesis five is rejected as there is no significant difference between males and females in regards to their online photo sharing behaviour on Facebook.

Prior research noted that females posted more photos than males (Joinson, 2008; Kimbrough et al., 2013; Lenhart & Madden, 2007; Mendelson & Papacharisi, 2010; Pempek et al, 2009; Raacke & Bonds-Raacke, 2008; Wang et al, 2012). However, the study of Hum et al. (2011) reasoned that the similarity across genders in online behaviours may be because that social networking sites may be a place where the creation of mini-cultures, in which separate set of social norms in an online environment are formed, neutralizing any gender difference. Dindia and Wood (1998) echoed that it is unwise to look at biological differences of males and females, but rather, look at the social structures and practices that shape their behaviours. Young and Quan-Haase (2009) also noted that men and women share almost the same amount of information online and have an equal likelihood to share a photo of themselves online, supporting the idea that gender differences follow a different set of norms and rules in online interaction compared to face-to-face

interaction. These reasons suggest why there was no significance in this current research.

5.1.6 Hypothesis six. Research question six looks at the relationship between gender differences in online privacy concern in Malaysian young adults' online photo sharing on Facebook. Hypothesis six states that there is a significant difference between males and females for online privacy concern and Malaysian young adults' online photo sharing behaviour on Facebook.

Results showed that there is a statistically significant difference between males and females. Hypothesis six is accepted as there is a significant difference between males and females in regards to their online privacy concerns on online photo sharing on Facebook in which, males are more concern in regards to their online privacy on Facebook as compared to females. Even though males were generally more concern compared to their female counterparts over privacy concern on online photo sharing, it did not spur them to share fewer photos online or vice versa as there was no gender difference in online photo sharing behaviours on Facebook.

These results are contradictory to prior research that noted that females were generally more concern over their privacy compared to males (Acquisti & Gross, 2006; Fogel and Nehmad, 2009; Park, 2015). However, prior

research reported that generally there is an inconsistency between users' privacy concerns and their actions (Acquisti & Gross, 2006; Ahern et al, 2007; Debatin et al, 2009; Fogel & Nehmad, 2009; Stutzman, 2006).

In Sheehan's research (2002), participants who had higher level of education (i.e., high school, bachelor's degree, master's degree, doctoral degree) were found to be more concerned about their online privacy. In view of that, in this current study, males were found to show more concern, perhaps due to demographics of the male participants in this study that consist mostly of participants who have bachelor degrees.

Park's (2015) study that showed that males were significantly better equipped than women with privacy technical skills and had more confidence in protecting their privacy. Mohamed and Ahmad's (2012) study also reported that those with high levels of internet self-efficacy will have an increase in their online privacy concerns. Thus, perhaps males in this study have higher internet self-efficacy and are better equipped at privacy technical skills, thus showing higher levels of concern on their online privacy.

This inconsistency could also be translated into the inconsistency found in the gender differences on privacy settings as well as reasoned in hypothesis five, this inconsistency of results between this current research and

prior research is due to the fact that social structures and practices shape users' behaviours rather than the biological differences of gender and thus it is unwise to look and compare biological differences of males and females (Dindia & Wood, 1998). Moreover, social networking sites may be a place where the creation of mini-cultures, in which separate set of social norms in an online environment are formed, neutralizing any gender difference (Hum et al., 2011). Young and Quan-Haase (2009) supports the idea that gender differences follow a different set of norms and rules in online interaction compared to face-to-face interaction. Thus, these reasons could be resulted in the inconsistency found in this study and other studies.

5.2 Limitations and Recommendations

This study has some limitations which must be noted. This study used a quantitative approach in which participants were required to complete an online questionnaire. This study used convenient sampling and therefore the results cannot be generalized. It is premature to generalize the findings of this study to other population groups unless the results can be replicated. The quantitative approach is limited in the sense it is not able to get insights into more in-depth information as respondents are to choose the best answer that best reflects their motivations on online photo sharing on Facebook. For future research, the use of qualitative approach should be considered to further enhance the findings of this research. A qualitative research would be able to delve deeper into individual perspectives and deeper insights on why certain

motivations such as intrinsic motivations are stronger motivators for online photo sharing on Facebook.

Another limitation to this study is that the research was conducted with the assumption that the population of Facebook accounts belonged to real users. In an online atmosphere, an online analysis can be biased as there could be a lack of honesty and authenticity of the users who share online information and photos on their online social networking site. Moreover, there is a possibility that the Facebook profile also does not genuinely reflect the real person behind the online identity as Facebook users are able to create fake accounts or use stolen identities for the online Facebook profile. This poses a hindrance of setting a sample that reflects a true representation of the research population.

Another limitation of this study is that this study analysed just one form of online sharing, online photo sharing. As photos are the most popular feature on Facebook, it is a good starting point. The current research used a Likert scale adapted from Hsu and colleagues' (2007) knowledge sharing behaviour scale was used to measure users' online photo sharing behaviours on Facebook. Future research could focus on other areas of online photo sharing such as analysing the concept of selfies, the content itself or look at special interest groups that could vary in reasons of sharing photos. Moreover, other forms of online sharing could be looked into as results may differ from

this study such as video sharing, or sharing of other personal information such as status updates. Future studies could test similar hypotheses.

This study was also conducted only on a specific online social networking site- Facebook. Further research could provide deeper insights on the reasons of the viability and success of Facebook that encourages users to generate content. Moreover, studies of other types of social networking sites that share similar functions should be studied to not only delve deeper into the insights on why the Malaysian internet consumers do not use other social networking sites such as Instagram and Flickr to the same extent as Facebook to share online photos and information, but to also help verify the generalizability of this study's findings. Future research could offer different findings as users of other social networking sites that are visual in nature such as Pinterest, Tumblr, Instagram as well as other platforms such as Twitter, MySpace and LinkedIn. Each could have different reasons for conducting online sharing activities. Certain social networking sites could be used for different reasons such as gearing towards professional business contacts such as on LinkedIn, and perhaps would draw different types of users as well as different motivations behind users' online sharing behaviours.

Moreover, privacy issues can be further explored as a whole area by itself. The current study showed that there is a lack of online privacy concern of the Facebook users and their online photo sharing behaviours. Further

exploration can focus on why there is such an inconsistency and why users are not bothered or unconcerned even though there are serious risks involved when conducting online photo sharing behaviours on Facebook. In depth interviews or a qualitative based research on privacy and online photo sharing could provide important data on the area of online privacy concern and the risk involved in online photo sharing.

5.3 Implications of Study

With the exponential growth of online social networking sites and the importance of user contribution to maintain these online social systems, it is essential to have a better understanding of the motivational factors that drive users to continue to conduct online sharing activities, in particular, online photo sharing activities.

The research has contributed to the literature in this area, providing new understanding and also enriching the data in regards to online photo sharing behaviours on Facebook in the context of Malaysian. The research has also provided a comprehensive conceptual framework that connected intrinsic and extrinsic motivational factors to actual data collection from online photo sharing on Facebook in the Malaysian. The data contributed from this research has helped identify which motivations contribute to online photo sharing on

Facebook, as well as provided a better understanding what motivates them to continue to share their photos on Facebook. Research data collected also supported the theories proposed in this research, namely the self-determination theory of motivation, the social exchange theory as well as the social capital theory, in which intrinsic and extrinsic motivations do play an important role in users' online photo sharing behaviours.

Researchers and practitioners, as well as designers of such online communities may benefit from understanding the dynamics and such online sharing. Researchers and practitioners can use the data to better understand users' behaviours and how it affects users' personal life, their community and the world around them, as well as provide further insights on how to improve human interaction, communication and the social bond that society strives on. Designers of such online social networking sites could use this data to explore ways to make the users photo sharing experience more enjoyable and feel more strongly attached to the community to encourage more online sharing behaviours. Providing more opportunities or new ways for social interaction in the online photo sharing app itself could prove essential for users to feel motivated to update their online community through this type of online sharing. Likewise, designers could also explore ways to make the actual process of online photo sharing an even more enjoyable one as enjoyment was a strong motivator factor for users to conduct online photo sharing activities on Facebook. Providing a more user-centric and user-friendly method of online photo sharing could motivate users to have even higher levels of online

photo sharing behaviours. On a side note, as privacy issues and the risk involve when sharing personal content is a serious issue in the online world, the data collected will provide researchers and designers alike valuable knowledge to help understand users as well as continue to improve the privacy configurations of such online systems to provide a safe online environment for online sharing that looks out for the benefit, safety, and privacy of the users themselves.

CHAPTER 6

CONCLUSION

This study investigated the influence of intrinsic and extrinsic motivations in online photo sharing on Facebook among young Malaysian adults as well as their privacy concerns. The research has shed light on how Malaysian Facebook users are using Facebook to conduct their online photo sharing as well as answered the key question of what motivates young Malaysian adults to be so heavily invested in online photo sharing behaviours on Facebook. It looked at this particular combination of both intrinsic and extrinsic motivations such as enjoyment and commitment for intrinsic motivations and self development, reputation and reciprocity for extrinsic motivations. The study was able to contribute new data to this area of online sharing behaviours on Facebook, providing more information on photo sharing behaviours. Thus far, prior research has been primarily focused on motivations behind general Facebook use. This study was able to delve deeper and provide more insights in the local context of Malaysia in terms of online sharing behaviours among its netizens as there is limited research on countries outside the United States. This study also looked at online privacy concern among Facebook and has also shed light on their online privacy concern regarding their shared photos on Facebook as well as a comparison between online privacy concern between males and females.

Results showed that indeed intrinsic and extrinsic both play significant roles in influencing Malaysian young adults in regards to their online photo sharing behaviours on Facebook as both H1 and H2 were supported. In addition, for H3, the results showed that comparatively, intrinsic motivations were stronger factors for users to conduct online photo sharing behaviours. Results for H4 showed that there was no difference between genders in regards to online photo sharing behaviours and H5 showed that there was no significance in privacy concerns and online photo sharing behaviours as well as no difference between genders in regards to online photo sharing behaviours. H6 was supported, showing that males portrayed more concern in their online privacy concern in their online photo sharing behaviours. Figure 6.1 provides a summary on the hypotheses of this study. These findings suggest that researchers, practitioners and designers can use this data to understand the dynamics of such online sharing behaviours and use this data and work towards providing a user-centric and user-friendly environment to motivate online photo sharing behaviours as well as to provide a safe online environment for online sharing.

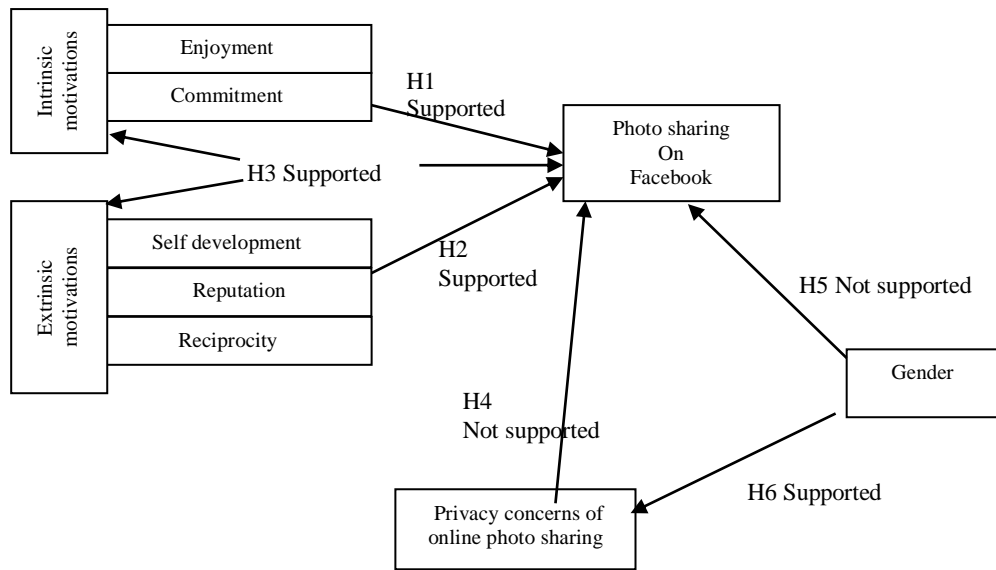


Figure 6.1: Conclusion of Conceptual Framework

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APPENDIX A

QUESTIONNAIRE

Why do you share photos on Facebook?

Dear Participant,

I am a Master's Degree student from Universiti Tunku Abdul Rahman (UTAR) and am currently doing a study on motivations behind online photo sharing on Facebook, as well as the privacy concerns of photo sharing in Malaysian Facebook users between 18-34 years old. This research will help to understand what motivates Facebook users to share their photos on Facebook and also provide a better understanding of Facebook users' privacy concerns and how it affects online photo sharing behaviours.

This questionnaire has 4 parts. Please answer ALL questions. The information contained in this survey is confidential and will only be used for academic purposes. Your participation for this survey is voluntary and it will take about 20 minutes of your time. Your participation in this survey is truly appreciated.

Part A: Demographic Data

*Instruction: Please **CIRCLE** your answers.*

1. Are you a member of Facebook? Yes/No
2. Do you share your photos on Facebook? Yes/No
3. Nationality: Malaysian /other: _____
4. Age: _____
5. Sex: Female / Male
6. Where are you currently residing? Malaysia / Overseas
7. Occupation:

- a) Government school/college/university student
 - b) Private school/college/university student
 - c) Self employed
 - d) Company employed
 - e) Unemployed
8. Others (Please specify): _____
9. What is your highest level of education you have completed?
- a) PMR
 - b) SPM
 - c) Pre-U (Form 6, A level, foundation)
 - d) Diploma
 - e) Bachelor degree
 - f) Masters
 - g) Others (Please specify):

Part B: General Facebook use & photo sharing behavious

Instruction: Read refer to your Facebook account while doing this section. Thank You. Indicate how you feel about each statement by CIRCLING your answers.

1. How long have you been a member of Facebook? _____ years
2. How many friends do you have in your Facebook account?
- a) Less than 100
 - b) 100-299
 - c) 300-499
 - d) 500-699
 - e) 700-899
 - f) 900- 2000
 - g) More than 2000: _____
3. On a typical weekend day, how much time do you spend on Facebook?
- a) none
 - b) 1 – 5 hours
 - c) 5-10 hours
 - d) 11-15 hours
 - e) 16-20 hours
 - f) 20-24 hours
4. On a typical weekday, how much time do you spend on Facebook?
- a) none
 - b) 1 – 5 hours
 - c) 5-10 hours
 - d) 11-15 hours
 - e) 16-20 hours
 - f) 20-24 hours

5. How many days in a typical week you go on Facebook?

- a) None
- b) 1
- c) 2
- d) 3
- e) 4
- f) 5
- g) 6
- h) 7

6. In a typical day, what do you usually do on Facebook?

No	Activity	Never	Rarely	Sometimes	Often	Always
1	Photo (looking at photos, tagging/untagging photos, commenting on photos, sharing photos)	1	2	3	4	5
2	Profiles (Looking at other people's profiles)	1	2	3	4	5
3	News feed (Reading your news feeds)	1	2	3	4	5
4	Wall/timeline (Reading posts on your wall, reading other's wall posts, posting on walls, linking videos)	1	2	3	4	5
5	Notes (Posting notes, reading other's notes)	1	2	3	4	5
6	Group (looking at groups, creating groups, interacting in groups)	1	2	3	4	5
7	Events (Responding to events, creating events, interacting in events)	1	2	3	4	5
8	Messages (reading private messages from others, sending private messages)	1	2	3	4	5
9	Updating status (updating own status/looking at others)	1	2	3	4	5
10	Friends(Adding/ removing/editing friend list)	1	2	3	4	5
11	Games (Playing games or checking out what others are playing on Facebook)	1	2	3	4	5
12	Apps (Using additional apps linked to Facebook)	1	2	3	4	5

7. How many photos have you shared on Facebook (please refer to your Facebook photos and total up the number of photos from each album)

- a) Less than 100 : _____
- b) 100-499
- c) 500-999
- d) 1000- 1499
- e) 1500 – 1999
- f) 2000-2499

- g) 2500-2999
- h) 3000-3499
- i) 3500-3999
- j) 4000-4499
- k) 4500-5000
- l) More than 5000: _____

8. What type of photos do you usually share with others on Facebook?

No	Type of photo	Never	Rarely	Sometimes	Often	Always
1	Events (Birthdays, holidays, weddings, graduation, prom, parties, road trips etc)	1	2	3	4	5
2	Self-portrait	1	2	3	4	5
3	Friends	1	2	3	4	5
4	Family	1	2	3	4	5
5	Pets/ animal	1	2	3	4	5
6	Scene (Landscapes, places etc)	1	2	3	4	5
7	Object (things, food etc)	1	2	3	4	5

9. Do you adjust your privacy settings every time you share photos on Facebook?

Never	Rarely	Sometimes	Often	Always
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10. When you share your photos on Facebook , who do you usually share your photos with most of the time?

No	Privacy settings	Never	Rarely	Sometimes	Often	Always
1	Public	1	2	3	4	5
2	Friends	1	2	3	4	5
3	Friends except acquaintances	1	2	3	4	5
4	Only me	1	2	3	4	5
5	Custom	1	2	3	4	5

12. Photo sharing behaviour: **Instruction: Read the statements carefully. Indicate how you feel about each statement by CIRCLING the appropriate number.**

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I frequently share my photos with my friends on Facebook.	1	2	3	4	5

2	I usually spend a lot of time conducting photo sharing activities on Facebook.	1	2	3	4	5
3	When I share my photos on Facebook, I usually actively share information about my photos (such as title, descriptions, place, date, tags etc).	1	2	3	4	5
4	When I share my photos with my friends on Facebook, I am usually actively involved in the subsequent interactions with others (responding to “likes” and comments).	1	2	3	4	5
5	I usually share various photos with my friends on Facebook rather than just one type of photo.	1	2	3	4	5

Part C: Motivations

Instruction: Read the statements carefully. Indicate how you feel about each statement by CIRCLING the appropriate number.

What motives you to share your photos with others on Facebook?

INTRINSIC

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find sharing my photos on Facebook enjoyable.	1	2	3	4	5
2	The actual process of sharing my photos on Facebook is pleasant.	1	2	3	4	5
3	I have fun sharing photos on Facebook.	1	2	3	4	5
4	I would feel a loss if I can no longer share my photos with my friends on Facebook.	1	2	3	4	5
5	I really care about the sharing photos with my friends on Facebook.	1	2	3	4	5
6	I feel a great deal of loyalty to keep my friends informed by sharing photos with them on Facebook.	1	2	3	4	5
7	Sharing my photos online with my friends on Facebook provides me with a means of developing my skills.	1	2	3	4	5
8	Sharing my photos online with my friends on Facebook gives me an opportunity to learn new things.	1	2	3	4	5

9	Sharing my photos online with my friends on Facebook enables me to become more proficient and enhance my expertise.	1	2	3	4	5
10	I earn respect from others by sharing my photos on Facebook.	1	2	3	4	5
11	I feel that sharing my photos on Facebook improves my image/status/popularity.	1	2	3	4	5
12	Sharing my photos on Facebook can improve my reputation in my professional field or area of interest.	1	2	3	4	5
13	I can earn some feedback or rewards through sharing photos that represent my reputation and status among my friends in Facebook.	1	2	3	4	5
14	I know that other members on Facebook will share photos, so it's only fair to share photos.	1	2	3	4	5
15	I trust that others will share photos with me if I shared my photos with them	1	2	3	4	5
16	When I share my photos with my friends on Facebook, I believe that I will receive feedback when I give feedback ("Likes" and comments).	1	2	3	4	5
17	When i share my photos wth others, i believe that i will get a respond on my own photos (likes/comments) when i respond to other people photos.	1	2	3	4	5
18	When I share my photos with my friends on Facebook, I expect my friends to respond to my photos.	1	2	3	4	5
19	When I share my photos with my friends on Facebook, I expect others to share photos with me when I am on Facebook.					
20	When I share my photos with my friends on Facebook, I expect my friends to share their photos with me in return in the future.	1	2	3	4	5
21	When I share my photos on Facebook, my friends tend to give me positive feedback on my photos.	1	2	3	4	5
22	When I share my photos on Facebook, my friends tend to be satisfied with me ("like" or give positive comments my photos)	1	2	3	4	5
23	When I share my photos on Facebook, my friends give me great encouragement	1	2	3	4	5
24	When I share my photos on Facebook, my friends tend to be aware of my existence.	1	2	3	4	5

Part D: Facebook Photo Sharing Privacy Concerns

*Instruction: We are interested in any privacy concerns you might have when you share your photos on Facebook. Read the statements carefully. Indicate how you feel about each statement by **CIRCLING** the appropriate number.*

No	Items	Not at all	Slightly	Somewhat	Moderately	Very Much
1	In general, how concerned are you about your privacy while sharing photos on Facebook?	1	2	3	4	5
2	Are you concerned about online organisations not being who they claim they are?	1	2	3	4	5
3	Are you concerned that you will put too much personal information when you share photos on Facebook?	1	2	3	4	5
4	Are you concerned about online identity theft?	1	2	3	4	5
5	Are you concerned about people online not being who they say they are?	1	2	3	4	5
6	Are you concerned that photos of you could be found on an old or pre-owned computer/electronic device?					
7	Are you concerned who might access your Facebook photos electronically?	1	2	3	4	5
8	Are you concerned about people you do not know obtaining photos and personal information on that photos about you from your photo sharing activities on Facebook?	1	2	3	4	5
9	Are you concerned that if you use your credit card to buy something on Facebook your credit card number will be obtained/intercepted by someone else?	1	2	3	4	5
10	Are you concerned that if you use your credit card to buy something on Facebook your card will be mischarged?	1	2	3	4	5
11	Are you concerned that the photos you shared on Facebook may be seen by someone else besides the person(s) you share with?	1	2	3	4	5

12	Are you concerned that the photos you shared on Facebook may be inappropriately forwarded to others?	1	2	3	4	5
13	Are you concerned that the photos you shared on Facebook may be printed out in a place where others could see it?	1	2	3	4	5
14	Are you concerned that a computer virus could send out emails in your name?	1	2	3	4	5
15	Are you concerned about photos on Facebook you see not being from whom they say they are?	1	2	3	4	5
16	Are you concerned that someone sharing photos with you on Facebook containing a seemingly legitimate internet address may be fake?	1	2	3	4	5

-End of questionnaire-

APPENDIX B

SPSS OUTPUT: MULTIPLE REGRESSIONS OF INTRINSIC AND EXTRINSIC MOTIVATIONS

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.627 ^a	.393	.386	2.60790

a. Predictors: (Constant), sum of enjoyment, self development, commitment, reciprocity, reputation

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1831.276	5	366.255	53.852	.000 ^a
	Residual	2829.265	416	6.801		
	Total	4660.540	421			

a. Predictors: (Constant), sum of enjoyment, self development, commitment, reciprocity, reputation

b. Dependent Variable: photo sharing behaviour

Coefficients						
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>Sig.</i>	<i>R</i> ²
Model						0.39
(Constant)	5.50	0.70		7.82	.000	
Enjoyment	0.73	0.07	0.44	9.82	.000	
Commitment	0.26	0.07	0.19	3.64	.000	
Self-development	0.02	0.06	0.01	0.25	.806	
Reputation	0.11	0.06	0.12	1.98	.048	
Reciprocity	-0.02	0.40	-0.02	-0.43	.669	

Note. * $p < .05$; ** $p < .01$, *** $p < .001$

APPENDIX C

**SPSS OUTPUT: INDEPENDENT SAMPLE T-TEST FOR GENDER
AND ONLINE PHOTO SHARING BEHAVIOURS**

Group Statistics

		GENDER	N	Mean	Std. Deviation	Std. Error Mean
photo sharing behaviour	male		172	16.1279	3.33613	.25438
	female		250	16.1040	3.32768	.21046

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
photo sharing behaviour	Equal variances assumed	.128	.720	.072	420	.942	.02391	.33000	-.62475	.67256
	Equal variances not assumed			.072	367.102	.942	.02391	.33015	-.62532	.67314

APPENDIX D

SPSS OUTPUT: INDEPENDENT SAMPLE T-TEST FOR GENDER

AND ONLINE PRIVACY CONCERNS

Group Statistics

GENDER		N	Mean	Std. Deviation	Std. Error Mean
privacyconcern	male	172	60.9767	12.77605	.97416
	female	250	64.0400	13.77670	.87132

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Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df.	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Privacy concern	Equal variances assumed	.940	.333	-2.311	420	.021	-3.06326	1.32533	-5.66836	-.45815
	Equal variances not assumed			-2.344	384.878	.020	-3.06326	1.30698	-5.63296	-.49355