IIUM JOURNAL OF HUMAN SCIENCES

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IJOHS

IIUM Journal of Human Sciences

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The Relationship between the Instagram Usage and Self-esteem among IIUM Students

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ABSTRACT

This study aims to determine the effects of Instagram usage on the self-esteem of International Islamic University Malaysia (IIUM) students. The specific objectives of this study are: (1) to assess IIUM students' level of Instagram usage; (2) to assess IIUM students' level of perception of Instagram usage; (3) to assess IIUM students' level of attitude in using Instagram; (4) to assess IIUM students' level of behaviour in using Instagram; and (5) to determine the relationships of usage, perception, attitude, and behaviour in using Instagram with self-esteem. A quantitative research design was employed in this research. For data collection, network sampling was used as a sampling technique and an online survey questionnaire was used as the research instrument. A total of 160 undergraduate and postgraduate students participated in this study. The results show a high level of Instagram usage among students, where most of them used it more than five times a day. Therefore, their usage of the platform had a positive impact on their self-esteem. The findings also show that the students tended to have a positive perception, attitude, and behaviour towards self-esteem in using Instagram. The relationships between Instagram usage, perception, attitude, behaviour, and self-esteem were strong and statistically significant. Hence, when all the students have a highest level of Instagram usage, they will have a positive perception, attitude, and behaviour towards their self-esteem. This study tested the social comparison theory, and all the developed hypotheses were accepted.

Keywords: *Attitude, behaviour, Instagram, perception, self-esteem*

INTRODUCTION

In the last ten years, social media has become one of the most powerful media tools globally. Social media allows people to share everything online. The popularity of social media such as Facebook, Twitter, YouTube, Instagram, and WhatsApp is increasing because anyone who can access the Internet can share information, images, videos, meme and others with huge audiences (Abbott, 2013; Salomon, 2013). Surprisingly, among all the social media platforms, image-based Instagram has become one of the most popular and powerful in the world (Ting, Run, & Liew, 2016).

Instagram, which was launched in 2010, is mainly used to share pictures. Now, it has more than 1 billion monthly and 500 million daily active users across the world. Every day, Instagram uploads 95 million images and 300 million live streaming, with a total of 4.2 billion "likes" for posts daily (Aslam, 2018). The number of Instagram users has been increasing rapidly in a very short time. Among today's youths, Instagram is more popular than Facebook (Endres, 2013). It has very different features from Facebook, allowing people to create content to post an image.

Instagram reaches youths very fast (Abbott, 2013; Salomon, 2013). Youths today use Instagram more than they use Facebook (Salomon, 2013). For that matter, they like using mobile phones and taking pictures as well as posting them instantly on Instagram (Abbott, 2013). The shared images without captions can quickly reach huge groups of people, who in most cases turn out to have the same interest (Bakhshi, 2013). Social media networking sites such as Facebook, Twitter, and Instagram allow people to communicate everywhere, mostly for social networking (Lup, Trub, & Rosenthal, 2015). The platforms allow images and live streaming videos to be uploaded and shared with other people in groups and with individuals at their convenient times (Bakhshi, 2013). These activities may affect users' self-

esteem when their Instagram posts reach huge audiences. One of the main reasons for losing self-esteem is when the contents of the images or videos are good and easy to remember, but people do not respond or give biased feedback.

Sharing images online has become very popular among people, especially college and university students who have a mobile phone with them all the time. They use the mobile phone to share their information, images, videos, memes, and other online content and to connect with their friends and family members across the world. These activities might affect their self-esteem because users want feedback from their followers. Many studies have been conducted in Malaysia about marketing on Instagram, for example, Instagram in English language writing (Akhiar, Mydin, & Kasuma, 2017; Latiff, & Safiee, 2015; Salleh, Hashima, & Murphy, 2015; Shazali, Shamsudin, & Yunus, 2019).

Problem Statement

In the communication field, self-esteem is a crucial and active concept for people. To understand self-esteem, it is essential to know how people acknowledge themselves with the various social contexts. Remue, Hughes, De Houwer and De Raedt (2014) "defined actual self-esteem is an individual's evaluation of the current self, ideal self-esteem can be defined as the representation of the attributes that one would like to possess" (as cited in Nasso, Vanderhasselt, & De Raedt, p. 1, 2020). Moreover, Self-esteem means evaluating oneself positively (Cast & Burke, 2002). Instagram users like to evaluate themselves positively by sharing body pictures on Instagram, which sometimes bring dissatisfaction to themselves. Sharifi, Omidi, and Marzban (2016, p.1) argued that "Body picture is how we mentally see our bodies and has both perceptual and attitudinal components and body image dissatisfaction is acknowledged as a behavioural problem experienced by a large proportion of society."

Many youths use Instagram to follow famous people, public figures, and celebrities as their idols. Day by day, youths follow their lifestyles and start making comparisons. If it is impossible to be like their idol, then they start to feel down which might affect their self-esteem (Sharifi, Omidi, & Marzban, 2016). Despite the research conducted, some questions have remained unanswered, especially in students' environments. For example, how does Instagram usage link with students' self-esteem? How do students' perception, attitude, and behaviour in using Instagram link with their self-esteem? The current study attempts to answer these questions by focusing on the students of International Islamic University Malaysia (IIUM).

Research Objectives

The main objective of this study is to examine the relationship between Instagram usage, perception, attitude, and behaviour in using Instagram with self-esteem. The specific objectives are (a) to assess the level of Instagram usage among IIUM students; (b) to assess the level of perception of Instagram usage among IIUM students; (c) to assess the level of attitude in using Instagram among IIUM students; (d) to assess the level of behaviour in using Instagram among IIUM students; and (e) to determine the relationships between self-esteem and the usage, perception, attitude, and behaviour in using Instagram.

Significance of the Study

The findings of this study are expected to contribute to the greater body of knowledge on Instagram usage and student self-esteem through the framework of social comparison theory. The theory has been used before in similar studies but not at IIUM, specifically in assessing students' perception, attitude, and behaviour towards Instagram usage and their relationships with self-esteem. As highlighted in the literature review section, several studies have been done on social networking sites but rarely on how the sites linked with students' self-esteem after using them while pursuing their studies at institutions of learning. Minimal research has been carried out on the effects of social media, specifically Instagram, on students' self-esteem (Ahadzadeh, Sharif, & Ong, 2017; Dion, 2016). Therefore, this paper attempts to fill the gaps in research on Instagram usage.

This study hopes to provide insights into areas in which students lack adequate knowledge of what to do, particularly in situations where they are affected by social networking sites. Since the impact

on their self-esteem might lead to poor academic performance, IIUM students will benefit from a study on this aspect that focuses on them. Data from this study are expected to provide useful information to universities on the management of students who constantly use their gadgets during class hours. It will guide them on how to manage students and find lasting solutions to prevent students from losing self-esteem as a result of using social media.

The findings of this study are also expected to help digital marketing specialists by offering essential information on the impacts of social media on its users. This is because substantial numbers of young people nowadays have moved to image-based social media, for example, Instagram from text-based social media such as Facebook. Hence, digital marketers will benefit from this study by obtaining information on whom to target and how to target such markets.

This study is also expected to provide information on which social media people are going to use. This is echoed in terms of what motivates people to use certain social media and how media dependency on various social media platforms exist (Bryant, Thompson & Finklea, 2013; Rubin & Haridakis, 2008). Besides, the results of this research are expected to offer essential information to scholars in this field, specifically at IIUM, where scarce research has been done about the effects of Instagram usage on students' self-esteem.

LITERATURE REVIEW

Instagram Usage

Instagram, a mobile-based application, is usually used to post images and videos with descriptions where users can comment, like, and interact with others. Instagram is the fastest-growing online-based social media (Anderson & Jiang, 2018; National Opinion Research Center 2017). Furthermore, this image-based mobile application has more impacts on users than other text-based media such a Facebook (Johnson & Knobloch-Westerwick, 2016).

Instagram was established in 2010 as a photo- or video-sharing site. Its popularity has increased rapidly among youths. Instagram has very different features from Facebook, as it is used to create ideas based on images or videos. With Instagram, users have the option to use many filters to beautify their images before uploading them. Most interestingly, unlike Facebook, it has an option to "like" but does not have a "dislike" option (Ellison, Heino, & Gibbs, 2016). Thus, these options have the chance to affects Instagram users self-esteem positively or negatively.

Users actively use social media networks and connect through each other's posts (Verduyn et al., 2017). It means that users upload images and videos on Instagram and interact with other users by liking and commenting. Active usage of social media sites has produced favourable outcomes. For example, significant positive associations were found between well-being, self-esteem, and social relationships (Myers, 2000).

Instagram activities tend to be more biased than Facebook activities because on Instagram, users present themselves positively (Lup, Trub, & Rosenthal, 2015). This happens through image and video editing before posting, which results in the culture of polishing and perfecting one's images and videos. A study by Lup (2015) on Instagram usage demonstrated the positive impact of the Instagram platform on users' levels of self-esteem and well-being. Rosen, Whaling, Carrier, Cheever, and Rokkum (2013) found that users who spent more time on social media networks tended to experience more depression compared to those who did not use it much. When depression sets in, self-esteem decreases

Perception of Instagram Usage

Instagram usage and its popularity have increased rapidly, with 700 million active users worldwide (Instagram, 2017). Females have more Instagram accounts (71%) in comparison to Facebook (46.5%) and Twitter (14.1%) (Salmon, 2017). The intensity of social media usage gives

higher levels of surveillance and body shaping among youths which boosts its status and perception among young people because of they influence by other people's posts.

In using Instagram, user's perception plays an important role to get many followers for users own account in a short time. The type of users also knows what images or videos will be shared on Instagram for their self-assessment (Johnston, 2013). Additionally, as the disconnected relations become more fragile, few students think about them as perceived users. Females are also identified with a higher interacting behaviour more than males on Instagram possibly because females are more associated with taking photographs or documenting every step of their daily routines as Johnston (2013) exclaimed.

Merle and Freberg (2016) found that students' intent to use a social media platform is affected by their perception of it. In using Instagram, users' perception plays an important role in obtaining a high number of followers for one's own account within a short time. Some users also know what types of images or videos to be shared on Instagram (Johnston, 2013). Female users tend to have a higher interaction perception than males on Instagram, possibly because females are more associated with taking photographs or documenting every step of their daily routines. The question is, will the usage of Instagram link with their esteem?

Attitude in Using Instagram

Instagram is the fastest growing social media worldwide for video and image production and sharing purposes. This application is also the most popularly used social network site ahead of Facebook and Snapchat (Knight-McCord et al., 2016). Instagram is listed in eighth place in terms of the most visited social media worldwide. Instagram is even more popular among teenagers compared to other age groups. It is highly popular among 19–35 years old university students. Instagram permits them to communicate and share sentiments in an individual space, where images and video recordings can be incorporated with messages. Instagram also allows them to view the platform with a positive attitude because they benefit from using it (Al-Ali, 2014).

However, sharing images on Instagram can bring negative feelings to users, especially those who spend many hours on the platform. Instagram has many negative effects compared to other social media networks through social comparison with other people. Nevertheless, looking at other people's images may sometimes bring positive emotions besides negative effects on a user's self-esteem when one compares him/herself to other users (Lup, Trub & Rosenthal, 2015).

Behaviour in Using Instagram

Way of life is an example of somebody's life on the planet that thinks about his/her exercises, attention, and sentiment. Way of life is usually connected with exercises, attention, and somebody's sentiment. Including that way of life shows how somebody's life is. For example, how somebody spends his/her cash and how somebody assigns his/her time. Way of life reflects the entire individual life that cooperates with the earth (Kotler and Keller, 2009).

Individuals with low levels of behaviour see their regular events as unfortunate and are easier to face sentiments of depression, anger and anxiety (Verduyn et al. 2017). Positive behaviour is a significant if not the most significant objective that people endeavour to accomplish for the duration of their lives. For the current research, behaviour is conceptualized as one's general belief when they use the platform, which is always operationalized through the satisfaction with the life scale. Past research has effectively credited active social media networks use to more higher levels of behaviour when estimated with the satisfaction with life scale (Verduyn et al., 2017).

Self-esteem

Self-esteem represents an individual's personality and how people see themselves. Self-esteem means evaluating oneself positively (Cast & Burke, 2002). Liu, Carcioppolo, and North (2016) referred to self-esteem as both a person's feeling towards themselves and their intellectual judgment of their own self-worth. People with higher levels of self-esteem frequently have positive perspectives of

themselves, while people who experience low self-esteem may feel uncertain or negative about themselves. Consequently, people's self-esteem is largely identified with how they perceive themselves (Rosenberg, Schooler, & Schoenbach, 1989).

Trifiro (2018) indicated that self-esteem is related to various perceptions. According to Smith and Sanderson (2015), online self-presentation is made when users select what data they should add to their profile to feature their best characteristics. Social networking sites expand users' feelings of being acknowledged thus building their self-esteem. Presenting a self-profile is related more to elevate levels of self-esteem especially when users alter their own data (Gonzales & Hancock, 2011). Online self-presentation can affect one's self-assessment. Kramer and Winter (2008) implied that users expect to make positive self-presentations by portraying themselves in an ideal light. Therefore, it can be concluded that social media gives people the chance to make positive portrayals and self-presentations, leading them to have a higher self-esteem.

Social Comparison Theory
Social comparison theory was developed in 1954 by the psychologist Leon Festinger. This theory is about self-evaluation of their own ideas and activities or abilities against other people. Comparison prompts pressures towards consistency; however, the propensity to compare will cease if others are too different in dimensions identified in terms of their abilities and their opinions on a specific issue.

People constantly evaluate and compare themselves against others in domains such as attractiveness, wealth, intelligence, and success. People's thoughts do involve comparisons of some kind. This theory determines individuals' perception of their own social and personal worth based on how they are compared against others. People who regularly compare themselves to others may find the motivation to improve but may also experience feelings of deep dissatisfaction, guilt, or remorse. Thus, they engage in destructive behaviours like lying or having an eating disorder to look good to others.

When people compare themselves with others as a method of estimating their self-development or motivating them to improve, they tend to build a more constructive mental self-image. The theory is limited to the fact that contrasts are likelier to cause people to feel terrible when they make the mistakes of merely contrasting themselves with individuals of specific characteristics. Ultimately, individuals will generally contrast themselves with the individuals whom they know.

Conceptual Framework
Based on the literature review and social comparison theory, a conceptual framework is developed (Figure 1).

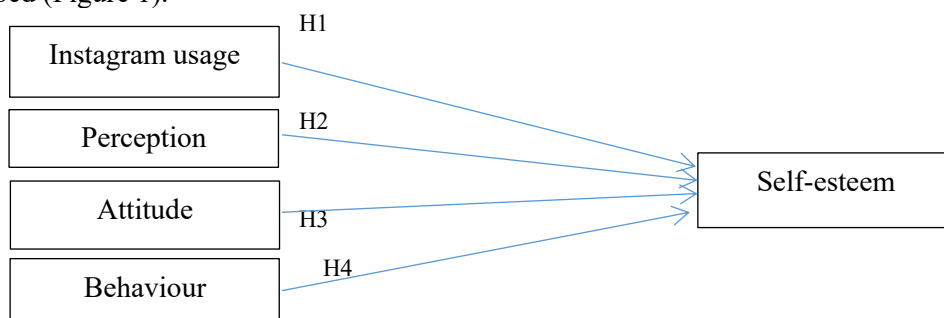*Figure* 1 Conceptual framework for Instagram usage, perception, attitude, behaviour, and self-esteem

Hypotheses of the Study
Based on the conceptual framework, the following hypotheses are formulated.

H1: There is a positive relationship between Instagram usage and self-esteem among IIUM students.
H2: There is a positive relationship between perception and self-esteem in using Instagram among IIUM students.

H3: There is a positive relationship between attitude and self-esteem in using Instagram among IIUM students.

H4: There is a positive relationship between behaviour and self-esteem in using Instagram among IIUM students.

METHOD

Research Design
A quantitative research design was employed in this study, while an online survey was used as the method for data collection. This method was chosen to facilitate obtaining large data within a short time. An online survey questionnaire was distributed to undergraduate and postgraduate students of International Islamic University Malaysia (IIUM). This methodology allowed the researchers to gather enough information about the population being studied, covering their gender, age, nationality, level of study, year of study, and kulliyyah.

Population and Sampling Procedure
The population of the study consisted of IIUM students at the Gombak campus. IIUM is one of the leading public universities in Malaysia. IIUM has seven faculties or kulliyah. In 2018, the university had 18,825 students, where 15,625 were undergraduates and 3,200 were postgraduates (IIUM, 2018). The sample size of 160 respondents was obtained from all seven kulliyyah through the network sampling technique. The main reason for using this sampling technique is that the study was conducted during the COVID-19 pandemic. An online survey was the most appropriate method for data collection, especially during the Movement Control Order (MCO) period, where it was not possible to meet students on campus to collect data through the face-to-face method. Hence, an online questionnaire using the Google Form was distributed through social media, for instance, Facebook and WhatsApp. Data were collected from June 22 to June 30, 2020.

Instrument and Measurement
The questionnaire consisted of six sections. Section A featured the general data on the demographic's characteristics of the respondents, consisting of six items such as gender, age, and kulliyyah. Sections B to F were measured on a 5-point Likert scale, where 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly agree*, 4 = *agree*, and 5 = *strongly agree*. Section B tapped on the respondents' intensity of Instagram usage (10 items), adopted from Trifiro (2018). The items included "I use Instagram more than thirty minutes per sitting." Section C covered the respondents' perception (10 items), also adopted from Trifiro (2018). An example of the items is "On Instagram, I think I am a person of worth." Section D gauged the respondents' attitude (10 items), adapted from Trifiro (2018). The items included "I am afraid that I am not a person of worth." Section E was on the respondents' behaviour (10 items), adopted from Sholeh and Rusdi (2019), for example, "I plan before sharing photos on Instagram." Finally, section F covered the respondents' self-esteem (10 items), adopted from Trifiro (2018), for example, "I feel that I am a person of worth, at least on an equal plane with others." Sections B, C, D, and E represent the independent variables, whereas section F represents the dependent variable of the study.

Each variable was computed to form an overall mean score with a minimum of 1 and a maximum of 5. To calculate the overall percentage of an item, the mean for the item was multiplied by 20, which is equivalent to 100% based on the 5-point scale. Therefore, an overall percentage was obtained by multiplying the mean score by 100 and dividing by 5 (Wok & Hashim, 2014).

Validity and Reliability
A pilot study ($N = 30$) was conducted before carrying out the actual study to measure the flow and content of the questions and to find if there were any problems faced by the respondents. The questionnaire was also reviewed and approved by an expert in the field. An internal reliability test was conducted using Cronbach's alpha. Results indicate that all items for the six variables were significant and exceeded the minimum Cronbach's alpha value of .70, indicating the reliability of the variables. Table 1 shows that the results confirm the internal cohesiveness and consistency of the variables with

the Cronbach's alpha value for Perception scoring the highest (α = .968), followed by Instagram usage (α = .954), Self-esteem (α = .944), Behaviour (α = .815), and Attitude (α = .704). Based on the pilot study results, the variables were strong and reliable enough to be maintained for the actual study. For the results of the actual study, Perception emerged with the highest Cronbach's alpha (α = .963), followed by Instagram usage (α = .953), Self-esteem (α = .943), Behaviour (α = .938), and Attitude (α = .814). The results were strong and reliable enough to proceed for data analysis.

Table 1: Reliability test of selected variables

No.	Variable	No. of Items	Reliability (Cronbach's α)	
			Pilot Study (*N* = 30)	Actual Study (*N* = 160)
1	Instagram usage	10	.954	.953
2	Perception	10	.968	.963
3	Attitude	10	.704	.814
4	Behaviour	10	.815	.938
6	Self-esteem	10	.944	.943

Data Analysis

Data were analysed using Statistical Package for the Social Sciences (SPSS) Version 22. Both descriptive and inferential statistical analyses were used. The descriptive analysis included frequencies, percentages, means and standard deviations, while the inferential analysis included *t*-tests and bivariate correlations. Specifically, research objectives 1, 2, 3, and 4 were analysed using descriptive data analysis, whereas objective 5 and hypotheses 1, 2, 3, and 4 were tested using bivariate correlations.

FINDINGS

Demographic Characteristics of the Respondents

The study analysed a sample of 160 respondents from the target population. Table 2 shows a similar ratio of male (48.8%) to female (51.2%) respondents. Slightly more than half the number of respondents (56.9%) was within the age group of 21–25 years old, followed by 30.6% who were less than 20 years old, then 9.4% of the respondents were in the 26–30 years old age group, and the remaining respondents (3.1%) were 31 years old and above. Malaysian students (71.9%) formed almost three-quarters of the respondents and the rest (28.1%) were international students. Three in ten respondents (30.0%) came from Kulliyyah of Islamic Revealed Knowledge and Human Sciences (KIRKHS), while the remaining respondents were from KENMS (16.9%), AIKOL (13.8%), KOE (13.1%), KOED (12.5%), and the least were from KAED and KICT with a combined total of 13.7%. Regarding the respondents' highest level of study, the majority of them were undergraduates (86.2%), while the rest were postgraduate students (13.8%). The levels of study are well represented: the first year with 36.2%, the second year and third year with 21.9% each, and the fourth year with 20.0% of the respondents.

These results show that the respondents are equally represented by both males and females, consisting of mainly young undergraduate students from Malaysia representing various kulliyyah at various levels of study.

Table 2: Demographic characteristics of the respondents

Demographic Characteristic	Category	Frequency	Percentage
Gender	Female	82	51.2
	Male	78	48.8
	Total	**160**	**100.0**
Age	Less than 20	49	30.6
	21–25	91	56.9
	26–30	15	9.4
	31–35	3	1.9
	41 and above	2	1.2
	Total	**160**	**100.0**
Nationality	Malaysian	115	71.9
	International	45	28.1
	Total	**160**	**100.0**
Kulliyyah	KIRKHS	48	30.0
	KENMS	27	16.9
	AIKOL	22	13.8
	KOE	21	13.1
	KOED	20	12.5
	KAED	12	7.5
	KICT	10	6.2
	Total	**160**	**100.0**
Level of study	Undergraduate	138	86.2
	Postgraduate	22	13.8
	Total	**160**	**100.0**
Year of study	First	58	36.2
	Second	35	21.9
	Third	35	21.9
	Fourth year and above	32	20.0
	Total	**160**	**100.0**

Level of Instagram Usage

The levels of using Instagram among IIUM students are presented in Table 3. The respondents' levels of Instagram usage are higher, with the mean values ranging from 3.793 to 4.050. The overall Instagram usage (78.5%), with a mean value of 3.926 ($SD = 0.913$), confirms the high level of Instagram usage among students for different reasons. Most of the respondents used Instagram more than five times a day ($M = 4.050$). They used Instagram every day of the week ($M = 4.012$) and claimed Instagram as a part of their everyday activity ($M = 4.012$). Further, they felt that Instagram had become part of their daily routine ($M = 4.000$). They had hundreds of followers ($M = 3.950$), and they were a part of the Instagram community ($M = 3.900$). They used Instagram for more than thirty minutes every time they opened it ($M = 3.868$) and they were proud to tell people that they were on Instagram ($M = 3.850$). They would be sorry if Instagram were to shut down ($M = 3.825$), and finally, they did not feel out of touch when they had not logged in into Instagram for a while ($M = 3.793$). The results show a high intensity of Instagram usage for various reasons among IIUM students.

Table 3 : Descriptive data analysis for the level of Instagram usage

No.	Level of Instagram Usage ($N = 160$)	M^*	SD	%
1	I use Instagram more than five times per day.	4.050	1.050	81.0
2	I use Instagram every day of the week.	4.012	1.104	80.2
3	Instagram is a part of my everyday activity.	4.012	1.115	80.2
4	Instagram has become part of my daily routine.	4.000	1.138	80.0
5	I have more than hundreds of followers.	3.950	1.103	79.0
6	I feel I am part of the Instagram community.	3.900	1.094	78.0
7	I use Instagram for more than thirty minutes per sitting.	3.868	1.192	77.3
8	I am proud to tell people I'm on Instagram.	3.850	1.128	77.0
9	I would be sorry if Instagram were to shut down.	3.825	1.152	76.5

10	I feel out of touch when I haven't logged in into Instagram for a while.	3.793	1.149	75.8
	Overall Level of Instagram Usage	**3.926**	**0.913**	**78.5**

*On a 5-point Likert scale, where 1 = *strongly disagree* (1–20%), 2 = *disagree* (21–40%),
3 = *slightly agree* (41–60%), 4 = *agree* (61–80%), and 5 = *strongly agree* (81–100%).

Perception of Instagram Usage

The descriptive data analysis results for students' levels of perception in using Instagram are presented in Table 4. Overall, 76.8% respondents had a high level of perception in using Instagram with a mean value of 3.840 ($SD = 0.927$). When using Instagram, the respondents thought that they certainly got motivated at times ($M = 3.931$), they had a positive attitude toward themselves ($M = 3.912$), they were satisfied with themselves ($M = 3.875$), they could have more respect for themselves ($M = 3.868$), they were more inclined to think that they were successful ($M = 3.862$), they could do things like most people do ($M = 3.850$), they were persons of worth ($M = 3.837$), they were good in all aspects ($M = 3.793$), they had several good qualities ($M = 3.735$), and they had much to be proud of ($M = 3.737$). The results translate into a higher level of perception regarding Instagram usage among the respondents.

Table 4 : Descriptive data analysis for respondents' perception in using Instagram

No.	Perception in Using Instagram ($N = 160$)	M*	SD	%
1	From Instagram, I certainly think motivated at times.	3.931	0.997	78.6
2	From Instagram, I think I take a positive attitude toward myself.	3.912	1.106	78.2
3	Based on Instagram, I think I am satisfied.	3.875	1.068	77.5
4	From Instagram, I think I could have more respect for myself.	3.868	1.076	77.3
5	On Instagram, I am inclined to think that I am successful.	3.862	1.066	77.2
6	On Instagram, I think I can do things as most people do.	3.850	1.088	77.0
7	On Instagram, I think I am a person of worth.	3.837	1.253	76.7
8	On Instagram, I think I am good in all aspects.	3.793	1.076	75.8
9	On Instagram, I think I have several good qualities.	3.735	1.135	74.7
10	From Instagram, I think I have much to be proud of.	3.737	1.129	74.7
	Overall Perception of Instagram Usage	**3.840**	**0.927**	**76.8**

*On a 5-point Likert scale, where 1 = *strongly disagree* (1–20%), 2 = *disagree* (21–40%),
3 = *slightly agree* (41–60%), 4 = *agree* (61–80%), and 5 = *strongly agree* (81–100%).

Attitude in Using Instagram

Table 5 presents the results of the respondents' attitude in using Instagram. Their attitude in using Instagram is higher with an overall 73.2% where mean value of 3.663 ($SD = 0.595$). Most of the respondents felt happy to show that they were satisfied with using Instagram ($M = 4.131$), and they felt happy that they had a positive attitude towards themselves ($M = 4.075$). Further, they felt proud that they were good to everyone ($M = 4.068$). They were also happy because: they were respected by others ($M = 4.006$), they were successful ($M = 3.981$), and they could do like other people do ($M = 3.918$). They felt that they could be motivated through Instagram ($M = 3.893$) and did not have much to be proud of ($M = 3.687$). They concerned that they feel they have bad qualities ($M = 2.531$). They afraid that they are not a person of worth ($M = 2.337$). Hence, it can be concluded that the students' attitude in using Instagram towards their self-esteem was high for different reasons.

Table 5: Descriptive data analysis for attitude towards Instagram usage

No.	Attitude in Using Instagram ($N = 160$)	M*	SD	%
1	I am happy to show that I am satisfied with using Instagram.	4.131	0.794	82.6
2	I am happy that I take a positive attitude toward myself.	4.075	0.805	81.5
3	I am feeling proud that I am good to all.	4.068	0.883	81.3
4	I am happy that people do respect me.	4.006	0.934	80.1
5	I feel happy that I am successful.	3.981	0.954	79.6
6	I am happy that I can do like other people.	3.918	1.021	78.3
7	I feel that I can be motivated through Instagram.	3.893	1.000	77.8

8	I feel that I do not have much to be proud of.	3.687	1.150	73.0
9	I am concerned that I feel I have bad qualities.	2.531	1.293	50.6
10	I am afraid that I am not a person of worth.	2.337	1.386	46.7
	Overall Attitude in Using Instagram	**3.663**	**0.595**	**73.2**

*On a 5-point Likert scale, where 1 = *strongly disagree* (1–20%), 2 = *disagree* (21–40%),
3 = *slightly ag*ree (41–60%), and 4 = *agree* (61–80%), and 5= *strongly agree* (81–100%).

Behaviour in Using Instagram
Table 6 highlights the results from a descriptive data analysis for the respondents' behaviour in using Instagram. Most of the respondents exhibited high levels of behaviour in using Instagram with an overall 76.1% where mean value of 3.806 (*SD* = 0.872). The highest level of behaviour was obtained by the item of "I always have a plan before sharing photos on Instagram" (*M* = 4.131, *SD* = 0.97), while the lowest was recorded by the respondents' plan to do a livestream on Instagram to feel good (*M* = 3.625, *SD* = 1.344). Other higher level of behaviours rated by the respondents are using Instagram regularly (*M* = 3.987); spending time watching other activities on Instagram (*M* = 3.868); reducing the time spent on Instagram (*M* = 3.850); checking Instagram stories to reduce feelings of guilt, anxiety, helpless, or depression (*M* = 3.775); getting nervous if they were prohibited from Instagram activities (*M* = 3.712); using Instagram stories to attract other people's attention (*M* = 3.706); seeing Instagram posts to reduce their personal problems (*M* = 3.706); and emulating things that other people posted on Instagram (*M* = 3.700). The results demonstrate that the students had a high level of positive behaviour towards Instagram usage for various reasons.

Table 6 : Descriptive data analysis for respondents' behaviour in using Instagram

No.	Behavior in Using Instagram (*N* = 160)	M*	SD	%
1	I plan before sharing photos on Instagram.	4.131	0.997	82.6
2	I use Instagram regularly.	3.987	1.009	79.7
3	I spend a lot of time watching others' Instagram activities.	3.868	1.110	77.3
4	I have reduced the time spent on Instagram.	3.850	1.023	77.0
5	I check the content of Instagram stories to reduce feelings of guilt, anxiety, helplessness, or depression.	3.775	1.115	75.5
6	I get nervous if I am prohibited from Instagram activities.	3.712	1.199	74.2
7	I make Instagram stories about my activities to get others' attention.	3.706	1.157	74.1
8	I see the contents of posts on Instagram stories to reduce my personal problems.	3.706	1.136	74.1
9	I do similar things as what other people upload on Instagram.	3.700	1.180	74.0
10	I plan to do a live stream on Instagram to feel good.	3.625	1.344	72.5
	Overall Behaviour in Using Instagram	**3.806**	**0.872**	**76.1**

*On a 5-point Likert scale, where 1 = *strongly disagree* (1–20%), 2 = *disagree* (21–40%),
3 = *slightly agree* (41–60%), 4 = *agree* (61–80%), and 5 = *strongly ag*ree (81–100%).

Self-Esteem of IIUM Students
The results from a descriptive data analysis (Table 7) demonstrate that the construct of self-esteem obtained an overall (80.3%) higher level of self-esteem with a mean value of 4.018 (*SD* = 0.702). The highest level of response goes to "on the whole, students are satisfied with themselves" (*M* = 4.087, *SD* = 0.803), showing that they were satisfied with themselves in as far as self-esteem is concerned. The respondents also felt that they had a good number of qualities (*M* = 4.081) and more respect for themselves than others (*M* = 4.081). Also, they felt like a person of worth, at least equal to others (*M* = 4.031). They thought they were good in all aspects (*M* = 4.018), and they felt that they had much to be proud of (*M* = 4.006). Further, they felt successful (*M* = 4.000) and had a positive attitude towards themselves (*M* = 4.000). Finally, they felt motivated most of the time (*M* = 3.956) and were able to do things like most people do (*M* = 3.918). Thus, it can be concluded that the students had a high level of self-esteem.

Table 7: Descriptive data analysis for self-esteem in Instagram usage

No.	Self-Esteem in Instagram Usage (*N* = 160)	M*	SD	%
1	On the whole, I am satisfied with myself.	4.087	0.803	81.7

2	I feel that I have a number of good qualities.	4.081	0.853	81.6
3	I have more respect for myself than others.	4.081	0.904	81.6
4	I feel that I am a person of worth, at least on an equal plane with others.	4.031	0.941	80.6
5	I think I am good in all aspects.	4.018	0.879	80.3
6	I feel I do have much to be proud of.	4.006	0.914	80.1
7	All in all, I am inclined to feel that I am successful.	4.000	0.897	80.0
8	I take a positive attitude toward myself.	4.000	0.883	80.0
9	I certainly feel motivated most of the time.	3.956	0.878	79.1
10	I am able to do things as most people do.	3.918	0.983	78.3
	Overall Self Esteem	**4.018**	**0.702**	**80.3**

*On a 5-point Likert scale, where 1 = *strongly disagree* (1–20%), 2 = *disagree* (21–40%), 3 = *slightly agree* (41–60%), and 4 = *agree* (61–80%), and 5 = *strongly* agree (81–100%).

Hypothesis Testing
Correlation Analysis

A bivariate correlation was performed to measure the relationships among the variables (Table 8). Based on the results, all the tested variables emerged strongly positive and statistically significant. The general strengths of the relationships among all the variables ranged from strong to very strong when the variables were tested with self-esteem. The results illustrate a very strong positive and significant relationship between self-esteem and Instagram usage ($r = .640$, $p = .000$), perception ($r = .705$, $p = .000$), attitude ($r = .692$, $p = .000$), and behaviour ($r = .655$, $p = .000$). Therefore, H1, H2, H3, and H4 are supported. There existed interrelationships among the independent variables, and the relationships were positive and significant.

Table 8: Bivariate correlations between Instagram usage, perception, attitude, behaviour, and self-esteem

Variable ($N = 160$)	Self-esteem	Instagram Usage	Perception	Attitude	Behaviour
Self-esteem	1				
Instagram usage	$r = .640$, $p = .000$	1			
Perception	$r = .705$, $p = .000$	$r = .810$, $p = .000$	1		
Attitude	$r = .692$, $p = .000$	$r = .618$, $p = .000$	$r = .699$, $p = .000$	1	
Behaviour	$r = .655$, $p = .000$	$r = .831$, $p = .000$	$r = .858$, $p = .000$	$r = .676$, $p = .000$	1

DISCUSSION AND CONCLUSION

The respondents of the study comprised 160 IIUM students, who were mainly undergraduates, Malaysian adolescents, and almost equally represented by males and females. They came from different levels of study and various kulliyyah. The results of the study show that the students tended to have a positive perception, attitude, and behaviour towards their self-esteem in using Instagram. The results also reveal that they were satisfied with using Instagram since they have higher level of attitude of Instagram usage.

The relationships between self-esteem and Instagram usage, perception, attitude, and behaviour were all strong and statistically significant. These findings support the study by Nadkarni and Hofmann (2012), who claimed that self-representation, is one of the main things that individuals seek in social networking sites whenever they use the sites, especially on their personal level. The level of Instagram usage for their self-esteem was high, and most of them used it more than five times a day. Therefore, their usage of Instagram had a positive link on their self-esteem. However, there are some previous findings showed that high social media usage linked to poor self-esteem in individuals (as been presented in the literature review section above).

The findings reflect that during the Instagram usage, students always use Instagram more than five times in a day because it motivates them sometimes, and that it brings positive energy and attitudes around them. Additionally, the results also imply that students tend to use Instagram for viewing their friend's platforms and that for them, they always have a plan before positing photos on to the site. However, they do not think that they are worthy and that they do not do live streams to feel good; this is in agreement with Lup (2015) study that concluded that people can tag their fellow Instagram users to gauge how they react to their posts for their personal self-esteem. Therefore, the objective of the study was achieved.

The study also confirms the suitability of using the social comparison theory, which is about the self-evaluation of own ideas and activities or abilities against other people. This theory is universally employed in studies examining the attitude or behaviour changes triggered by social media platforms such as Instagram. Thus, the study has proven that social comparison theory is applicable and holds true for the current study.

Limitations and Suggestions of the Study
This study considered only IIUM students at the Gombak main campus. For future research, it is suggested to broaden the population base for better representation, perhaps by covering various learning institutions because they are also exposed to an influx of technology and Instagram as a social platform. Another limitation is related to the focus on Instagram in this study. It is recognized that there are other mediums that people use to disseminate and/or acquire information quickly to work on their self-esteem. Therefore, future studies should attempt to add other social platforms to widen the scope of their investigation because other platform may impact differently, for example text-based social media.

The study was conducted during the onset of the COVID-19 pandemic. Therefore, data collection was challenging, and the researchers ended up using the networking sampling procedure. Further studies should try using other sampling methods that allow the random sampling procedure to be used for data collection. Lastly, the study was guided by the social comparison theory, which describes the influence of individual experiences and actions of others as well as other environmental factors on people's behaviour. The findings of the study with this theory is consistent because higher level of positive Instagram usage where respondent share their experiences. However, the findings also contrasting with some parts of the theory. For example, people who regularly compare themselves to others may find the motivation to improve but may also experience feelings of deep dissatisfaction, guilt, or remorse. Thus, they engage in destructive behaviours like lying or having an eating disorder to look good to others (as has been presented above in the social comparison theory). As a result, further research should explore other theories and see whether they can measure social platform usage and self-esteem on the same measurement scale. These other theories may include uses and gratifications theory, cultivation theory, dependency theory, and media effect theory.

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