EXAMINING FACTORS AFFECTING KNOWLEDGE SHARING BEHAVIOUR ON SOCIAL MEDIA OF POSTGRADUATE STUDENTS IN MALAYSIA

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Abstract:

Knowledge sharing is crucial for students' learning process, yet can be an issue for some reasons, as students often refuse to share their knowledge with others. There are various personal, social and technological factors that can affect students' knowledge sharing behaviour on social media. Hence, this study aims to investigate the factors affecting knowledge sharing behaviour among postgraduate students in Malaysia through the lens of Theory of Planned Behaviour Model and Social Cognitive Theory. This study adopted a quantitative research design and used a survey questionnaire via Google Form as its data collection technique. Simple random sampling was used, and data was collected from 406 postgraduate students in Malaysia, including from Sabah and Sarawak. Data were analysed using SPSS to construct the findings. The findings demonstrate that all independent variables (usefulness, ease of access, reputation enhancement, enjoyment in helping, sense of belonging, social interaction, trust and reciprocity) significantly affect postgraduate students' knowledge sharing behaviour on social media. Sense of belonging and reciprocity have a strong positive relationship with knowledge sharing behaviour. Whereas, usefulness, ease of access, reputation enhancement, enjoyment in helping, trust and social interaction have a moderate positive relationship with knowledge sharing behaviour. The findings of this study may have various implications for higher education institutions (HEI) and corporate organisations, where knowledge sharing behaviour is essential for academic performance and organisational success. However, this study only used the questionnaire given to obtain data from the respondents without asking for further clarifications or any additional comments from them. Although it is convenient and easy to analyse, the questionnaire does not allow researchers to gain a deeper understanding of respondents' motivations to share their

knowledge on social media. Therefore, future studies may include qualitative research such as structured observation and interviews. A longitudinal study is also recommended for this future study.

Introduction

According to a study by Isika et al. (2013), knowledge management is defined as the process of creating, capturing, sharing, and using the knowledge necessary for the success of an organisation. Knowledge is fundamental in research-intensive institutions such as universities, where knowledge is created, captured, and then transformed into tacit and explicit knowledge (Laal, 2011). Many organisations, especially higher education institutions, have implemented good knowledge management because it is a key element to their success (Kekwaletswe & Bobela, 2010). Knowledge sharing is an important component of knowledge management because it involves making knowledge available for use within an organisation and putting it into a format that others can understand and use (Isika et al., 2013). Some researchers emphasise the need for knowledge sharing to add value to the organisation (Saad & Haron, 2013). According to them, knowledge sharing is a collaborative activity that involves the dissemination of information, ideas, and skills. Consequently, knowledge sharing is a time-consuming task that requires students to be persistent and willing to communicate (Chee Keong & Subhi, 2015). An effective knowledge-sharing culture within an academic institution can help students improve their credibility in problem-solving and analytical skills. In addition, through increased information sharing, students can increase their credibility to change the traditional culture of an organisation, which would be beneficial to them in finding a suitable job after graduation (Sabbir Rahman et al., 2014).

The Department of Statistics Malaysia reported in 2022, the number of individuals aged 15 and above using a computer has increased, from 80.0 percent in 2020 to 83.5 percent in 2021. Internet usage by individuals in Malaysia has increased to 96.8 percent in 2021, up from 89.6 percent in 2020. Based on the ICT Use and Access by Individuals and Households Survey Report, Malaysia, 2021, the top five Internet activities in 2021 were: participating in social networking (99.0 percent), downloading images, movies, videos, or music (91.8 percent), searching for, information about goods or services (89.4 percent), making phone calls over the Internet/VoIP (89.2 percent), and downloading software or applications (86.3 percent). Social media platforms have helped us in all aspects of life, including politics, business, and education. With the advent of Web 2.0 (Hoh, 2018), social media has become increasingly popular due to increased collaboration and sharing via apps such as wikis, blogs, podcasts, and RSS feeds (Moghavvemi et al., 2018). Social media is seen as an important tool on campus to facilitate knowledge sharing and fulfil primary functions to support daily communication. Students in higher education use social media to communicate with each other and with their instructors about their group and project (Arif et al., 2021).

Postgraduate students use social media such as Facebook to share their thoughts, ideas, and experiences related to their curriculum and studies. Facebook enables learning outside the classroom through knowledge sharing (Selvarajah & Ali, 2021). Postgraduate students need to

discuss and communicate with each other on a daily basis, and the most popular platform among them is Facebook. Moghavvemi et al. (2018) and Moghavvemi et al. (2017) also investigated the factors that influence students' knowledge sharing behaviour on Facebook in Malaysia.

This study's research problem revolves around postgraduate students who often refuse to share knowledge with others (Aljaaidis, Bagais & Almoataz, 2020; Haq et al., 2018; Muhammad, 2017). From past studies and research, there are some similarities in terms of why students feels reluctant to share their knowledge publicly on social media; they are ranging from feeling insecure, they feel afraid that they might be exploited and got discredit from their own hard-earned information, some of them also have the tendency for knowledge hoarding which is due to similar reasons (Aleisha, 2022; Hosen et al., 2021; Fauzi et al., 2018). Previous researches have also found several threatening disadvantages if students did not practise knowledge sharing, which could lead to 'knowledge trapped' and overtime, students may develop some resistance to accept new knowledge or ideas. In other words, they would be more rigid with their own understanding or thought. This is not ideal when they are entering the workforce (Fauzi, 2018). Furthermore, in Malaysia, one in five candidates reportedly dropped out of the program. Worldwide records show that nearly 60 percent of postgraduates fail to graduate on time, and university dropout rates are also on the rise. The ability of postgraduates to graduate on time is an important outcome for the students, the host university, and the business community. One of the measures or strategies that can be taken to improve the research output in terms of publications and number of graduated students is to encourage students to share their knowledge either through formal or informal methods (Fauzi et al., 2019).

The theory examined in this study is the Theory of Planned Behavior (TPB). Previous studies have shown that technological factors that influence knowledge sharing behaviour are usefulness and ease of access (Al-Maatouk et al., 2018). Personal factors that influence knowledge sharing behaviour are reputation (Dezdar, 2017) and enjoyment in helping (Sari & Othman, 2018). Social factors that influence knowledge sharing behaviour are sense of belonging (Ergün & Avcı, 2017), social interaction (Selvarajah & Ali, 2021), trust (Tran, 2020) and reciprocity (Moghavvemi et al., 2018).
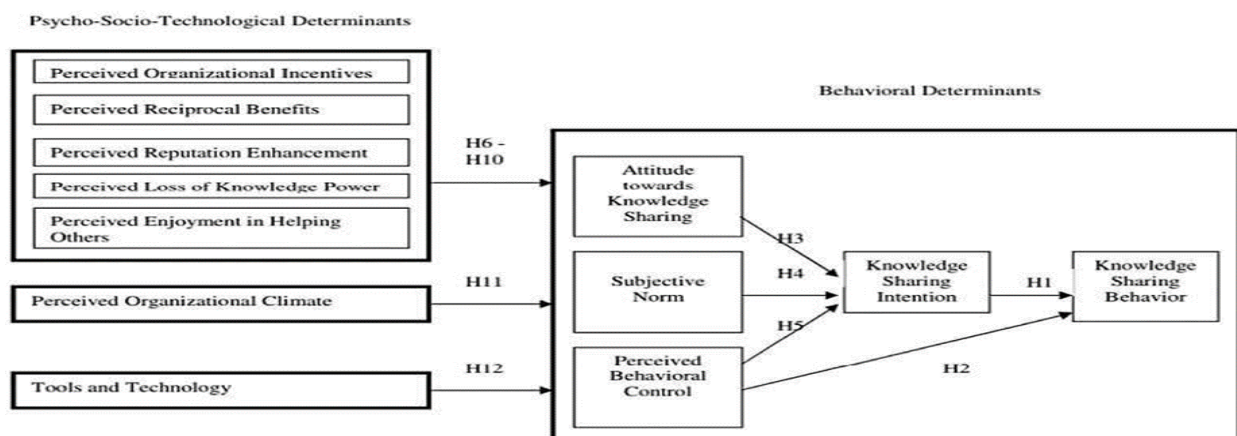

Figure 2.1 Theory of Planned Behaviour Model

This study aims to investigate the factors that can affect knowledge sharing behaviour on social media of postgraduate students in Malaysia. To achieve these aims, this study sought to answer the following questions;

RQ1: Is there any relationship between technology factors (usefulness & ease of access) and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia?

RQ2: Is there any relationship between personal factors (reputation enhancement & enjoyment in helping) and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia?

RQ3: Is there any relationship between social factors (sense of belonging, social interaction, trust & reciprocity) and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia?

Literature Review and Hypothesis Development

Knowledge Sharing Behaviour on Social Media
Knowledge sharing behaviour is defined as the exchange of knowledge (aptitudes, experience, and insight) between people in an organisation (Tran, 2020). Knowledge sharing is an important element of knowledge management (Hashmi et al., 2021) and it is crucial to safeguard the success of knowledge management in both organisational-based and academic institution environments (Saleh & Samsudin, 2021). These days, academic institutions play a key role as the primary centre in which knowledge practice and learning strategy occur concurrently (Saleh & Samsudin, 2021). However, as opposed to knowledge sharing practice in working organisations, knowledge sharing between students is deficient in intrinsic or extrinsic motivating incentive and it is somewhat driven by voluntary sharing of knowledge (Hashmi et al., 2021). Moreover, the differences between higher education institutions and other organisations lie in the organisational structure and culture, as well as the highly dynamic students' interactions (Lee, 2018). Therefore, determining knowledge sharing behaviour among students has become the subject of interest among researchers (Hashmi et al., 2021; Omotayo & Salami, 2018).

Nowadays, social media has increasingly become an important part of knowledge- sharing behaviour. In higher education institutions, social media is extensively used as a valuable tool, thanks to its roles in knowledge sharing and knowledge formation (Hosen et al., 2021). Compared to other conventional learning methods, students would rather use social media to enhance their knowledge sharing behaviour because of its simple and accessible function (Hosen et al., 2021). In addition, social networks provide an easy way for users to share information or opinions on the Internet. Hence, sharing serves as the main purpose of social networks (Zhao et al., 2018). Rasheed et al. (2020) discovered that social media has encouraged graduate research students in Eastern China to share knowledge among them which eventually leads to a higher engagement and creativity level in their research training. Social networks, such as Facebook, Twitter, WhatsApp and LinkedIn encourage collaboration and discussion and its use as educational tools in learning institutions has allowed students and teachers to interact in innovative ways beyond the classroom and exchange knowledge (Omotayo & Salami, 2018).

Since knowledge sharing behaviour is voluntary in nature, it depends on multiple psychological, social, and information and communication technology (ICT) factors (Hashmi et al., 2021). Many studies have explored the connection between knowledge sharing behaviour and certain factors such as enjoyment in helping others (Mustika et al., 2022; Selvarajah & Ali, 2021; Dezdar, 2017), reputation enhancement (Hosen et al., 2021), trust (Boateng et al., 2017; Dezdar, 2017) and technology (Al-Maatouk et al., 2018; Saleh & Samsudin, 2021). Therefore, this study attempts to discover the factors that affect knowledge sharing behaviour on social media among postgraduate students using the Theory of Planned Behaviour Model and Social Cognitive Theory.

Technology Factors and Knowledge Sharing Behaviour

There are two technology factors in this study, and they are usefulness and ease of access. Technology is crucial for networking functions because it enables long-distance collaboration (Saleh & Samsudin, 2021). The authors also emphasise that knowledge sharing does not have to take place physically because technology helps individuals from remote places to connect and exchange information with each other.

Usefulness

According to Hoh (2018), usefulness of social media refers to the extent of how much individuals think that social media use will improve their communication, teamwork, and knowledge exchange. This study discovered that usefulness directly affects knowledge sharing behaviour among Malaysian students. Saleh & Samsudin (2021) found out that perceived usefulness of technology is an important factor of knowledge sharing behaviour among undergraduate students. Most respondents believed that technology makes it easy for them to communicate, exchange knowledge and conduct discussion with others. Al-Maatouk et al. (2018) confirmed the significant correlation between perceived usefulness of social media and behavioural intention in using social media, which in turn enhances students' satisfaction and academic performance. Therefore, this study proposes the following hypothesis:

H1: "There is a significant relationship between usefulness and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Ease of Access

"Ease of access" implies the degree of how much a person thinks that utilising social media is effortless (Hoh, 2018). Hoh (2018) discovered a significantly clear relationship between ease of access and knowledge sharing behaviour and posited that the easier it is to gain access to social media, the greater the knowledge sharing behaviour among students. Some studies used the term "perceived ease of use" instead of "ease of access". "Perceived ease of use" can be defined as students' opinions on the extent of work or effort needed to use social media tools in their learning process (Al-Maatouk et al., 2020). A literature review by Sari & Othman (2018) discovered that perceived ease of use is one of the most cited technological aspects that affect knowledge sharing. These findings are in line with a study done by Lee (2018) which highlighted that successful knowledge sharing among university students needs a comprehensive, easy to access and user-friendly IT system. Therefore, this study proposes the following hypothesis:

H2: "There is a significant relationship between ease of access and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Personal Factors and Knowledge Sharing Behaviour

There are two personal factors in this study: reputation enhancement and enjoyment in helping.

Reputation Enhancement

Reputation refers to how much an individual thinks that participation in knowledge sharing can enhance an individual impression (Hoh, 2018). The author asserted that reputation enhancement had an insignificant influence on knowledge sharing behaviour through social networks among university students. Moghavvemi et al. (2017) also discovered that reputation was not a significant factor of knowledge sharing behaviour among undergraduate students. The authors postulated that when these students have a good peer relationship, desire to gain a higher reputation is not an important motivator for them. However, in various studies, reputation is one of the most stated personal determinants of knowledge sharing behaviour (Sari & Othman, 2018). Hosen et al. (2021) disclosed that reputation shows the highest positive impact on knowledge sharing between students, which consolidate the evidence that students chose to share knowledge on social media to enhance their reputation. This finding is also parallel with previous study among postgraduate students, where reputation is seen as an intrinsic motivator that significantly enhanced information sharing behaviour (Dezdar, 2017). Hence, this study proposes the following hypothesis:

H3: "There is a significant relationship between reputation enhancement and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Enjoyment In Helping

Enjoyment in helping implies helping other people voluntarily and not anticipating anything in response (Dezdar, 2017). Enjoyment in helping through social media can be observed from two viewpoints: appreciation in utilising social media whilst spending time with peers and appreciation in assisting other people in need of help (Hoh, 2018). Previous studies have demonstrated that pleasure from helping others significantly affected knowledge sharing behaviour among postgraduate students (Dezdar, 2017; Selvarajah & Ali, 2021). Pleasure from helping other students, which is an intrinsic motivation, was recognised as a driving force for graduate students to share their intellectual knowledge. Among undergraduate students, similar findings were described too. Perceived enjoyment stimulates knowledge sharing via Facebook among undergraduates in University of Malaya (Moghavvemi et al., 2017). These groups of students enjoyed sharing their knowledge in the Facebook group, believing that their action would be helpful to other students. Hence, this study proposes the following hypothesis:

H4: "There is a significant relationship between enjoyment in helping and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Social Factors and Knowledge Sharing Behaviour

There are four social factors in this study: sense of belonging, social interaction, trust and reciprocity.

Sense of Belonging

Within the context of an educational institution, a sense of belonging is characterised by a sense of responsibility to the institution, personal commitment to work in the setting and a feeling of one's capabilities being acknowledged by others (Hoh, 2018). According to Lee (2018), students with a high emotional identification level are more likely to possess a high degree of

belongingness and devotion towards their organisations and demonstrate supportive behaviours with other students. This study also revealed that social identification exerts a substantial effect on knowledge sharing's quality among students. Ergün & Avcı (2017) revealed that a sense of community has a remarkable influence on knowledge sharing among undergraduates in Turkey. Sense of community was discovered to positively affect the online learning process and students' performances too. Hence, this study proposes the following hypothesis:

H5: "There is a significant relationship between sense of belonging and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Social Interaction

Social interaction has a significant impact towards students' knowledge sharing as demonstrated by Lee (2018). The study discovered that social interaction is clearly correlated with both intensity and quality of knowledge sharing. This could be because students were ready to contribute their personal knowledge as a result of frequent and close interaction among themselves, equality in information sharing, and strong feelings toward university (Lee, 2018). Similar finding was documented by Selvarajah & Ali (2021), which discovered that social interaction delivers a constructive impact on knowledge sharing on Facebook amongst postgraduates in Malaysia. The authors suggested that the students' desire to interact with each other can stimulate knowledge sharing and enable them to obtain new information. Despite these pieces of evidence, however, Hoh (2018) discovered that social interaction shows no significant relationship with knowledge sharing behaviour on social media. Hoh (2018) postulated that these students may not know their online friends in real life, so, they would be hesitant to share their knowledge. Nevertheless, this study proposes the following hypothesis:

H6: "There is a significant relationship between social interaction and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Trust

Trust indicates a positive anticipation to one's capability, veracity, trustworthiness, and kindness for the capacity of other individuals in the organisation (Tran, 2020). In Malaysia, a study done by Saleh and Samsudin (2021) revealed that trust has the greatest correlational value with moderately positive impact on knowledge sharing behaviour. Moghavvemi et al. (2018) also found that trust is a powerful determinant of knowledge sharing via Facebook because most students trust their familiar friends. Students feel comfortable sharing information on social media, answering others' questions, and uploading new information pertaining to their course. Studies conducted in other countries also show congruent findings. In Ghana, a study showed that trustworthiness has a clear correlation with students' attitudes toward knowledge sharing (Boateng et al., 2017). In Iran, trust is an important factor that creates a better environment for postgraduate students to share their knowledge (Dezdar, 2017). Therefore, this study proposes the following hypothesis:

H7: "There is a significant relationship between trust and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

Reciprocity

Reciprocity means a conditional gain wherein individuals anticipate gains in the future because of their present actions (Moghavvemi et al., 2018). Perceived reciprocal benefit positively affects knowledge sharing behaviour via Facebook among students in University Malaya, which in turn affects their academic performance (Moghavvemi et al., 2018). The authors proposed that when students believe there would be a chance to obtain benefits by means of knowledge sharing, they were more motivated to share information with each other. Another study in University Malaya also showed that perceived reciprocal benefit has a significant effect towards knowledge sharing through Facebook (Moghavvemi et al., 2017). They posited that students were keen to respond to others' questions and assist them, hoping that others would disclose their ideas as a return. However, Hoh (2018) found that reciprocity did not have a direct relationship with knowledge sharing behaviour among university students in Malaysia. Among employees, organisational rewards were found to markedly motivate employees' involvement in knowledge sharing (Podrug et al., 2017). In line with the findings in literature, this study proposes the following hypothesis:

H8: "There is a significant relationship between reciprocity and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia".

These eight hypotheses are conceptualised in the following research framework (Figure 2.2).
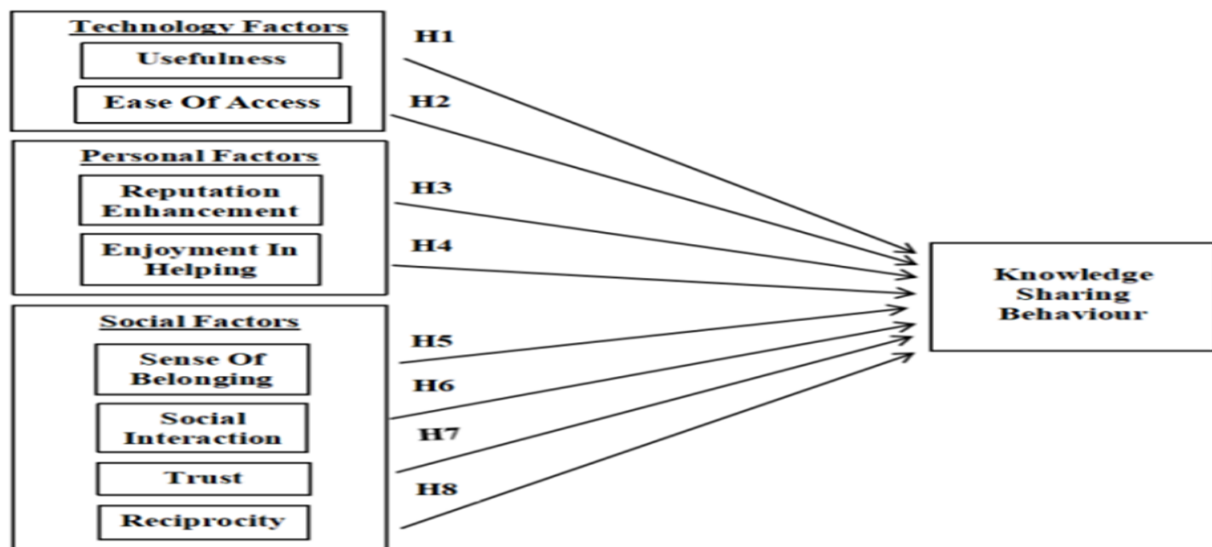
Figure 2.2 Knowledge Sharing Behaviour Theoretical Framework

Methodology

Participants

This study was carried out by using a questionnaire via Google Form that had been distributed to the target population. This study aims to examine whether there is a significant relationship between the variables. Thus, this study focuses on correlation analysis to understand the relationship between independent variables, which consists of 3 main categories: technological factors, personal factors, and social factors; and one dependent variable, knowledge sharing behaviour on social media. The target population for this study is postgraduate students (first year to final year) in Malaysia including postgraduate students from Sabah and Sarawak. This

target population refers to individuals who are pursuing postgraduate programs at educational institutions in Malaysia, whether in public or private educational institutions. To obtain a balanced distribution of respondents throughout Malaysia, platforms involving Facebook Groups, Telegram Groups, WhatsApp Groups, and email groups play a major role where a total of more than 30 mediums are used for this purpose. At the same time, help from contacts and lecturers all over Malaysia also helps to achieve that goal.

Prior to this actual study, a pilot study was conducted over 34 respondents. At this pilot stage, this questionnaire was adopted from a study done by previous researchers who used a similar study This pilot study used the Non-Probability-Convenience Sampling Method where all respondents were given 5 days to give their feedback. The selection of respondents is among closest acquaintances who are studying at the postgraduate level in Malaysia. The WhatsApp and Telegram platforms are widely used for that purpose apart from virtual and face to face meetings. This is intended so that all feedback and recommendations can be understood more clearly, and improvement actions can be implemented accurately. It was primarily conducted to assess whether the questionnaire used as a measuring tool was reliable, as well as to detect any errors. In addition, the respondents' feedback from this pilot study helped improve the set of questionnaires to be more user-friendly and easier to understand. During this pilot study, we identified an error involving question numbering. In addition, an improvement has been made to prevent the occurrence of incomplete responses. Thus, all questions were marked as mandatory, so if there were unanswered items, the survey could not be submitted by the respondents. At the same time, almost half of the questionnaire has been improved to allow the true meaning of the questionnaire to be conveyed more clearly. In addition, the questionnaire was prepared in two languages, namely English and Malay. This is done in response to suggestions from some respondents to provide a better understanding to those who are less proficient in English.

After the pilot study was carried out, the questionnaire was redistributed for a period of 10 days to the postgraduate students, from first to final year of study, in public and private educational institutions throughout Malaysia.

The distribution period of this questionnaire has been done from 9 to 18 July 2022. There were three follow-up actions implemented to ensure that the response rate reached an acceptable level. At the initial stage of the distribution of this questionnaire, a total of 800 questionnaires were distributed and the rate of feedback received within the first 3 days was 30 percent (~240 respondents). As the response was still low, follow-up was implemented where soft reminders were done in stages twice. In the end, a total of 530 respondents had given their feedback. However, 124 students did not fulfil the inclusion criteria for the educational level, thus, only 406 respondents were selected for data analysis.

Instrument
The survey instrument for this study was a questionnaire via Google Form. To ensure that adequate data was obtained, each question was set as mandatory and the questionnaire was deemed incomplete in the event of unanswered questions. The structured questionnaire used in this study included only closed-ended items with the goal of generating primary raw data. Closed-ended questions were better suited for data analysis. Section A contained items to solicit demographic information from the respondents, including gender, age, highest pursuing level of education, specialisation of study, and frequency of browsing social media. Section B

comprises items related to 8 independent variables: usefulness (5 items), ease of access (5 items), reputation enhancement (5 items), enjoyment in helping (5 items), sense of belonging (5 items), social interaction (5 items), trust (5 items) and reciprocity (5 items). Meanwhile, Section C dealt with a single dependent variable, knowledge sharing behaviour (5 items). These constructs were measured using a 5-point Likert scale with "1 = strongly disagree" and "5 = strongly agree". Items measuring adoption and adaptation were taken from previous sources such as Mouakket (2015), Hsu & Lin (2007), Hung, Lai & Chang (2011), Henning Rode (2016), Pi, Chou, and Liao (2013), Hung, Lai & Chang (2011), and many more. The constructs and their corresponding items are shown in the Appendix.

Data Analysis and Findings

Overview
Two types of statistics are conducted, descriptive and inferential. Descriptive statistics present the profile of the respondents in terms of frequencies and percentages and are supported by tabular representations. Inferential statistics in this study refers to correlation analysis, which presents the results of the study to answer the research questions and hypotheses.

Descriptive Analysis
Of all respondents who provided feedback, 221 respondents, or 54.4 %, were male, while 185 respondents, or 45.6 %, were female. The age group of 35 to 44 years old is the largest age group with 42.4 %. The second largest group is 45 to 54 years old with 24.9 %, followed by the 25 to 34 years old with 22.2 %. Most of the respondents, 82.5 % have a master's degree. Around 22 % or 89 respondents are continuing their studies in business administration. This is followed by mathematics/science/engineering with 84 or 20.7 % and marketing with 65 or 16.0 %. About 285 or 70.2 % of all respondents use social media several times a day. This is followed by respondents who use social media once a day (53 respondents or 13.1 %) and a few times a week (39 respondents or 9.6 %).

Inferential Statistics

Table 4.1: Pearson Correlation For All Variables In This Study

		USE	EA	RE	EH	SB	SI	TR	R	KSB
USE	Pearson Correlation	1	.770**	.484**	.681**	.695**	.719**	.507**	.654**	.581**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	406	406	406	406	406	406	406	406	406

EA	Pearson Correlation	.770**	1	.510**	.589**	.616**	.720**	.556**	.581**	.625**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	406	406	406	406	406	406	406	406	406
RE	Pearson Correlation	.484**	.510**	1	.581**	.581**	.644**	.467**	.543**	.556**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	<.001	<.001
	N	406	406	406	406	406	406	406	406	406
EH	Pearson Correlation	.681**	.589**	.581**	1	.814**	.737**	.550**	.667**	.654**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001
	N	406	406	406	406	406	406	406	406	406
SB	Pearson Correlation	.695**	.616**	.581**	.814**	1	.763**	.567**	.698	.719**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001

	N	406	406	406	406	406	406	406	406	406
SI	Pearson Correlation	$.719^{**}$	$.720^{**}$	$.644^{**}$	$.737^{**}$	$.763^{**}$	1	$.623^{**}$	$.701^{**}$	$.684^{**}$
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001
	N	406	406	406	406	406	406	406	406	406
TR	Pearson Correlation	$.507^{**}$	$.556^{**}$	$.467^{**}$	$.550^{**}$	$.567^{**}$	$.623^{**}$	1	$.663^{**}$	$.657^{**}$
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001
	N	406	406	406	406	406	406	406	406	406
R	Pearson Correlation	$.654^{**}$	$.581^{**}$	$.543^{**}$	$.667^{**}$	$.698^{**}$	$.701^{**}$	$.663^{**}$	1	$.809^{**}$
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001		<.001
	N	406	406	406	406	406	406	406	406	406
KSB	Pearson Correlation	$.581^{**}$	$.625^{**}$	$.556^{**}$	$.654^{**}$	$.719^{**}$	$.684^{**}$	$.657^{**}$	$.809^{**}$	1

Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	
N	406	406	406	406	406	406	406	406	406

Table 4.2: Summary Result Of Hypothesis Testing

Hypotheses	Pearson Correlation	P-Value Significant (P<0.05)	Decision	Justification
H1: There is a significant relationship between usefulness and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia.	0.581	<0.001	Accepted	The results of the usefulness analysis, r = 0.581 and p value <0.001, there is a moderate positive correlation between usefulness and knowledge sharing behaviour.
H2: There is a significant relationship between ease of access and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia	0.625	<0.001	Accepted	The results of the usefulness analysis, r = 0.625 and p value <0.001, there is a moderate positive correlation between ease of access and knowledge sharing behaviour.
H3: There is a significant relationship between reputation enhancement and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia	0.556	<0.001	Accepted	The results of the usefulness analysis, r = 0.556 and p value <0.001, there is a moderate positive correlation between reputation enhancement and knowledge sharing behaviour.
H4: There is a significant relationship between enjoyment in helping and knowledge sharing behaviour on social	0.654	<0.001	Accepted	The results of the usefulness analysis, r = 0.654 and p value <0.001, there is a moderate positive correlation between enjoyment in helping

media of Postgraduate Students in Malaysia.				and knowledge sharing behaviour.
H5: There is a significant relationship between sense of belonging and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia.	0.719	<0.001	Accepted	The results of the usefulness analysis, r = 0.719 and p value <0.001, there is a high positive correlation between sense of belonging and knowledge sharing behaviour.
H6: There is a significant relationship between social interaction and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia.	0.684	<0.001	Accepted	The results of the usefulness analysis, r = 0.684 and p value <0.001, there is a moderate positive correlation between social interaction and knowledge sharing behaviour.
H7: There is a significant relationship between trust and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia.	0.657	<0.001	Accepted	The results of the usefulness analysis, r = 0.657 and p value <0.001, there is a moderate positive correlation between trust and knowledge sharing behaviour.
H8: There is a significant relationship between reciprocity and knowledge sharing behaviour on social media of Postgraduate Students in Malaysia.	0.809	<0.001	Accepted	The results of the usefulness analysis, r = 0.809 and p value <0.001, there is a high positive correlation between reciprocity and knowledge sharing behaviour.

Conclusion

The objective of this study is to examine the factors that influence the knowledge sharing behaviour of postgraduate students on social media in Malaysia. The results of the study show that all hypotheses are accepted. The results of this study revealed that the relationship of usefulness and knowledge sharing behaviour was significant. According to previous studies, Malaysian university students are motivated to share their expertise since it is valuable (Hoh, 2018; Saleh and Samsudin, 2021). This study also demonstrated how postgraduate students' knowledge sharing behaviour was driven by ease of access. As a result, this discovery strengthened the data from earlier research of Al-Maatouk et al. (2018) and Hoh (2018). Among postgraduate students in Malaysia, reputation enhancement was discovered to be a powerful motivator for knowledge sharing behaviour. Subsequently, their reputation acted as

a potent motivator to share what they know on social media. One justification is that peoples who share their knowledge were more likely to be regarded as experts and to have a positive reputation. This study also demonstrated a direct relationship between enjoyment in helping and knowledge sharing behaviour. According to earlier studies by Moghavvemi et al. (2017), Hoh (2018), and Selvarajah and Ali (2021), postgraduate students were motivated to share knowledge on social media due to enjoyment in helping others. Similarly, this study has demonstrated that sense of belonging was one of the elements influencing postgraduate students to share knowledge on social media. Previous studies including college students (Ergün and Avci, 2017; Lee, 2018) reported making similar observations. This study reported a significant relationship between trust and knowledge sharing behaviour. This finding was supported by earlier research indicating trust played a vital role in determining graduate students' knowledge sharing (Dezdar, 2017). Moreover, the results of this study also indicated that reciprocity had a significant relationship with knowledge sharing behaviour. This outcome is in line with earlier research (Moghavvemi et al., 2017; Moghavvemi et al., 2018) stating that perceived reciprocal advantage is a potent predictor of knowledge sharing among students.

However, the findings of this study were different from those of a previous study by Hoh (2018), who found that only four independent variables, namely usefulness, ease of access, enjoyment in helping, and trust, showed a significant relationship with knowledge sharing behaviour. The other four independent variables namely reputation enhancement, sense of belonging, social interaction, and reciprocity did not have a significant relationship with knowledge sharing behaviour. This difference was likely the result of substantial demographic variations, as earlier research involved university students in Malaysia ranging from diploma to doctoral level. Meanwhile, this study is focusing on postgraduate students in Malaysia. Since most postgraduate students were working while pursuing their postgraduate degrees, Hashmi et al (2021) theorized that they could experience peer pressure to share their knowledge on social media. Thus, this explained the differences in motivational factors for knowledge sharing between postgraduate students and undergraduate students.

This study offers several key theoretical and practical contributions. Theoretically, this study contributes to the numerous literature review in relation to factors affecting knowledge sharing behaviour on social media of postgraduate students in Malaysia. Furthermore, this study has proposed a novel research model that investigates factors affecting knowledge sharing behaviour on social media of postgraduate students in Malaysia. From the findings of this study, most postgraduate students in Malaysia have effectively used social media for knowledge sharing. Practically, the findings of this study could be fully utilised by higher education institutions (HEI), which should then promote and enhance current educational information systems through student involvement in offering input for educational institution advancement, as it ultimately needs to revolve around the effectiveness of knowledge sharing behaviour. Furthermore, organisations and social media developers may consider postgraduate students' participation in obtaining feedback on the best methods and approaches that can be used to improve the existing structure.

Despite its contributions, this study has some limitations. Firstly, the research design for this study is using the quantitative approach with closed-end questions. The questionnaire should have some open-ended questions to capture the details of the reason why the respondents are willing to share knowledge on social media. Therefore, qualitative research is suggested for future research. Secondly, the responses are found to be biased as the respondents are

answering the survey based on their personal views. Thus, structured observations and interviews are suggested for future study. Thirdly, the results of this cross-sectional study might not be reliable due to potential time differences. Thus, longitudinal study is recommended for future study. Fourth, this study focuses on the factors that affect knowledge sharing behaviour on social media by postgraduates in Malaysia. This study could explore the outcome of knowledge sharing behaviour on the performance of postgraduate students academically and in their careers. Furthermore, this research could be extended to study postgraduate students' graduate on time (GOT) according to the mode of study e.g. full-time and part-time mode. Finally, future study could concentrate on more specific age groups like Gen Z who are born in the year of 1997 to 2012. The younger generation has a greater understanding of information technology as compared to the older generation like Gen Y who were born in 1981-1996.

The findings of this study have proved that the technological, personal and social factors (usefulness, ease of access, reputation enhancement, enjoyment in helping, sense of belonging, social interaction, trust and reciprocity) have a positive impact on knowledge sharing behaviour among postgraduate students in Malaysia. It is hoped that this study has given a better insight into the factors influencing knowledge sharing behaviour among postgraduate students in Malaysia.

Data Availability
A data availability statement is compulsory for research articles and clinical trials. Here, authors must describe how readers can access the data underlying the findings of the study, giving links to online repositories and providing deposition codes where applicable. For more information on how to compose a data availability statement.

Declaration of Conflict of Interest
The authors declared that there is no conflict of interest regarding the publication of this study.

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Appendix

Categories		SD	D	N	A	SA
Independent Variables						
Usefulness H1						
6	By using social media, it helps me to communicate easier with the people that I know					
7	By using social media, it improves my efficiency in sharing academic information and connecting with others					
8	By using social media, it enables me to acquire more information or know more people					
9	By using social media, it enhances my learning effectiveness					
10	By using social media, it enables me to accomplish my learning more quickly					
Ease of Access H2						
11	I find it easy to access the academic knowledge on social media to do what I want to do					
12	My interactions using academic knowledge on social media are clear and understandable					
13	I find academic knowledge on social media flexible & easy to interact with					
14	It is easy for me to become proficient in using academic knowledge on social media					
15	I find the academic knowledge on social media easy to use					
Reputation Enhancement H3						
16	Sharing my academic knowledge on social media can enhance my image in the community					
17	People in the community who share their academic knowledge on social media become more prestigious than those who don't					
18	Sharing my academic knowledge on social media is able to improves other people's recognition of me					
19	When I share my academic knowledge on social media, others will respect me					
20	I feel I can get feedback or rewards in the form of reputation enhancement for sharing my academic knowledge					
Enjoyment in Helping H4						
21	I enjoy helping others by sharing my academic knowledge through social media					

22	Glad to be able to help other members by sharing my academic knowledge on social media					
23	Sharing my academic knowledge with other members on social media gives me pleasure					
24	I enjoy helping other members in the social media community since it results in my own achievement					
25	The process of academic knowledge sharing in the social media community is enjoyable					
Sense of Belonging H5						
26	Sharing my academic knowledge in the social media community will help other members in solving problems					
27	Sharing my academic knowledge in the social media community will create new knowledge sharing opportunities for other members					
28	Sharing my academic knowledge in the social media community will help other members achieve their objectives					
29	My academic knowledge sharing in social media community would build collective knowledge					
30	My academic knowledge sharing in social media community would encourage other members to provide useful insights					
Social Interaction H6						
31	Sharing my academic knowledge on social media will strengthen the relationship between me and other members					
32	Sharing my academic knowledge on social media would create new relationships with new friends on social media					
33	My academic knowledge sharing would expand the scope of my association with other users in social media					
34	I often communicate with other members on social media					
35	Sharing my academic knowledge will create strong relationships with members who have similar interests on social media					
Trust H7						
36	The academic knowledge I gained from social media is trustworthy					
37	The members I interact with on social media are trustworthy					
38	The social media that I use provides a secure environment for transacting my academic information					
39	The social media that I use provides enough safeguards to make me feel comfortable using it to post my academic information					
40	I feel confident in the law as well as the security of social media technology in protecting me from any threats as example information leaks					
Reciprocity H8						
41	I find that writing and commenting on social media can be mutually helpful					
42	When I share my academic knowledge through social media, I expect somebody to respond when I'm in need					
43	When I share my academic knowledge through social media, I believe that my queries for academic knowledge will be answered in future					

44	I will get more friends on social media if I share my academic knowledge with other members					
45	I will get answers to my questions when I share my academic knowledge on social media					
Dependent Variable						
Knowledge Sharing Behaviour						
46	I frequently participate in academic knowledge sharing activities and share my academic knowledge with others in social media					
47	Usually, I spend a lot of time conducting academic knowledge sharing activities in social media communities					
48	Usually, I will participate in interacting with other members in discussions involving complex academic issues					
49	Using social media to share course related knowledge, I could make a contribution to the course					
50	I appreciate being able to exchange course-related knowledge with other students on social media					