ENVIRONMENTAL KNOWLEDGE SHARING BEHAVIOUR:

THE THEORY OF PLANNED BEHAVIOUR

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Abstract

This study implemented Theory of Planned Behaviour in examining environmental knowledge sharing behaviour among the undergraduate Accounting students from Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia (TISSA-UUM). The aim of this study is to examine if the attitudes, subjective norms, perceived behavioural control and environmental knowledge will have impact on the intention and behaviour towards environmental knowledge sharing and whether the intention mediates the influence of attitudes, subjective norms, environmental knowledge and perceived behavioural control towards environmental knowledge sharing behaviour. Survey method research has been implemented by distributing 250 questionnaires to the accounting students of TISSA-UUM chosen as the respondents. The data collected was then analysed applying Partial Least Square (PLS) path modelling. The results from the study showed significant relationship between the variables tested which are attitude, subjective norms, possession of environmental knowledge, perceived behavioural control and intention to share environmental knowledge with their influence towards environmental knowledge sharing behaviour. The results indicated that all hypotheses constructed are supported. This study contributes to the knowledge sharing behaviour literature in terms of environmental knowledge sharing behaviour in the academics context especially from students' perspective.

Keywords: environmental knowledge sharing behaviour, knowledge sharing behaviour, theory of planned behaviour.

Abstrak

Kajian ini mengaplikasi Teori Gelagat Terancang dalam penyelidikan mengenai gelagat perkongsian pengetahuan alam sekitar dalam kalangan pelajar ijazah Perakaunan dari Pusat Pengajian Perakaunan Tunku Puteri Intan Safinaz, Universiti Utara Malaysia (TISSA-UUM). Tujuan kajian ini adalah untuk mengkaji kesan sikap, norma subjektif, kawalan gelagat yang terlihat dan pengetahuan alam sekitar akan memberi kesan ke atas niat dan gelagat untuk berkongsi pengetahuan alam sekitar dan sama ada niat menjadi pengantara dari pengaruh sikap, norma subjektif, pengetahuan alam sekitar dan kawalan gelagat yang terlihat terhadap gelagat perkongsian pengetahuan alam sekitar.. Kaedah tinjauan telah dilaksanakan dalam penyelidikan dengan mengedarkan sebanyak 250 soal selidik kepada pelajar perakaunan TISSA-UUM yang telah dipilih sebagai responden. Data yang dikumpul kemudiannya dianalisa menggunakan kaedah *Partial Least Square (PLS) path modelling*. Dapatan kajian menunjukkan hubungan positif yang signifikan di antara pemboleh ubah diuji iaitu sikap, norma subjektif, pemilikan pengetahuan alam sekitar, kawalan gelagat yang terlihat dan hasrat untuk berkongsi pengetahuan alam sekitar dengan pengaruh terhadap gelagat perkongsian pengetahuan alam sekitar. Dapatan kajian membuktikan bahawa kesemua hipotesis yang dibina disokong. Kajian ini menyumbang kepada literatur mengenai gelagat perkongsian pengetahuan dari segi gelagat perkongsian pengetahuan alam sekitar dalam konteks akademik terutama dari perspektif pelajar.

Kata kunci: gelagat perkongsian pengetahuan alam sekitar, gelagat perkongsian pengetahuan, teori gelagat terancang.

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TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
PBC	Perceived behavioural control
TEK	Traditional environmental knowledge
UUM	Universiti Utara Malaysia
TISSA	Tunku Puteri Intan Safinaz School of Accountancy
BACC	Bachelor of Accounting (Hons)
BAIS	Bachelor of Accounting (IS) (Hons)
PLS-SEM	Partial Least Square Structural Equation Modelling

CHAPTER 1

INTRODUCTION

1.0 Introduction

The importance of environmental conservation has been continuously delivered to the society. A lot of measures had been done in effort to raise the environmental awareness from the young age. Amran, Abdul Khalid, Abdul Razak, and Haron (2010) addressed their concern on the urgency for sustainable development education especially in the higher education study in Malaysia. Environmental sustainability is very crucial in today's world since every activity performed either by individuals or organisations can affect the surrounding environment. Gray and Collison (2002) expressed this condition as "everything we have and everything we are is intertwined with the natural environment".

Furthermore, without possession or practise of environmental knowledge, the environmental issues will keep on deteriorating. The natural environment is in a dangerous state and is worsening steadily as a consequence of man's activities (Gray and Collison, 2002). Since attention towards environmental awareness becomes more significant, sustainable development issue become a topic of interest globally and there has been growing pressure for organisations to adopt more environmental friendly practices (Dezdar, 2017). Environmental knowledge sharing is very useful in spreading the environmental awareness in the community as well as organisation.

Knowledge sharing behaviour is an important part and a foundation of knowledge management (Bock and Kim, 2001). The contribution of an individual's knowledge is depends on the individual's knowledge sharing behaviour (Reychav and Weisberg, 2010). There are various factors determined influencing individual's behaviour towards

environmental knowledge sharing including individual behaviour and also environmental influence (Chennamaneni, 2006; Killingsworth, Xue, and Liu, 2016; Tohidinia and Mosakhani, 2010; Tsai, Chen, and Chien, 2012).

On the other hand, past researches (Abd Rahman, 2016; Ali, 2011; Mathews, 1997, 2001; Sales De Aguiar and Paterson, 2017) had shown lacking in the environmental knowledge despite the efforts in delivering the environmental knowledge through education, media as well as corporate involvement. Although environmental knowledge as well as knowledge sharing practice are important especially in education, the environmental sustainability awareness and knowledge sharing behaviour is considered low among the higher education students who will be the future professionals responsible in ensuring the sustainable development particularly in the organisations (Gray and Collison, 2002; Niaura, 2013).

This chapter explains the background of the study and discusses on the research problems providing a better understanding on the issue addressed by this study. Then, the research questions and objectives are developed based on the research problems. Next, the significance and scope reflect the importance of the study and followed by the definition of significant terms to provide basic insight and knowledge on the issue concern. Finally the organisations of paper are detailed out.

1.1 Background of the study

Environmental sustainability has been the global concern for the past decades. Varieties of measures have been undertaken by the global organisation in delivering environmental sustainability awareness to people around the world. The United Nation (UN) defines sustainable development as “the development that meets the needs of the present generation

without compromising the ability of future generations to meet their own needs". In 2015, UN has welcomed a new sustainable agenda which is "Transforming our World: The 2030 Agenda for Sustainable Development" (Agenda 2030). It has highlighted 17 Sustainable Development Goals (SDGs) to be achieved by all countries and stakeholders by 2030 (United Nations Development Programme, 2016). Besides the corporate agenda from the establishment of this project, UN also targeted to deliver the importance of environmental sustainability knowledge from various unique measures undertaken. It is proven that adequate environmental knowledge is as important as other basic knowledge for any sustainable development goal to be achieved either nationally or globally (Aminrad, Sayed Zakariya, Hadi, and Sakari, 2012; Hungerford and Volk, 1990).

On the other hand, as a developing country, Malaysia has a tight timeline to achieve developed nation status by the year 2020. The former Prime Minister of Malaysia, Tun Dr. Mahathir Mohamed has listed the Vision 2020 plans to be achieved in realising Malaysian target being a developed nation status by 2020. One of the big plans is Malaysia's Commitment towards Sustainable Development. This vision shows that environmental sustainability is not only important in enhancing an individual living style and a firm performance but it is as important as bringing a country to a status of developed nation. In realising this dream, the Eleventh Malaysian Plan has been released in 2015 outlining the strategies in achieving the 2020 vision. In the view of the environmental awareness importance, "Pursuing green growth for sustainability and resilience" listed as one of the goals towards the development of the nation. The public awareness on the importance of sustainable awareness has been growing since past decades (Aminrad, Sayed Zakariya, Hadi, and Sakari, 2012; Ballantyne and Packer, 1996; Mohammad, 2012; Pudin, 2006). The organisations especially put in efforts in ensuring the environmental sustainability in their

operation and compliance to the corporate sustainability reporting requirements (Lee and Hutchison, 2005; Nik Ahmad and Sulaiman, 2006).

Sustainable development and environmental knowledge can be easily gathered and obtained from various medium such as news, social media, lectures and many others. Moreover, in this technological development era, little effort done in gathering information resulted in obtaining adequate knowledge regarding certain concerns. Therefore, education and delivery of information in either formal or informal manner can be a powerful means to promote sustainability (Sales De Aguiar and Paterson, 2017).

Nowadays, the environmental education in accounting study is becoming more important due to multiple environmental damages from non-environmental compliance activities carried out by the organisations (Christ and Burritt, 2013). This raised the alarm in order to ensure current accounting students representing future professionals in the organisations to have environmental knowledge and be able to share their knowledge in future. Ali (2011) did rise up his concern that social and environmental sustainability education is now an important issue and challenge facing accounting education and educators in addition to technical and generic skills in accounting education. As a result to this concern, environmental management accounting has been included in the accounting education besides the sustainability reporting requirement imposed to the public listed companies around the world especially in Malaysia (Ali, 2011).

While environmental education is taking place in Malaysia education program, the knowledge sharing behaviour among Malaysian especially in the higher learning institution is regarded low (Ramayah, Yeap, and Ignatius, 2013) despite the development of technology. Most researchers believe the knowledge sharing practices is somehow related to individual behaviour (Huang and Chen, 2015). The awareness regarding the importance of knowledge

sharing practices is growing especially in the organisation context (Killingsworth et al., 2016; Zhang and Jiang, 2015). This situation probably gives a shine of hope towards the expansion of knowledge sharing practice. However, the practice of knowledge sharing in developing the chain of environmental knowledge especially in the context of higher learning institution is hard to determine mainly due to limited of study focusing on this issue.

The Theory of Planned Behaviour (TPB) has been widely used and recognised in determining, explaining and predicting human behaviour in any specific contexts of study (Ajzen, 1991). The use of TPB in determining the environmental knowledge sharing behaviour in this study is useful in unveiling the behavioural factors affecting environmental knowledge sharing behaviour in the academics context. In addition to the traditional TPB, environmental knowledge is added as an additional construct to the theory in order to execute the study regarding environmental knowledge sharing behaviour.

1.2 Research problem

Nowadays, research on knowledge sharing behaviour is continuously growing that shows the increasing importance of knowledge sharing practice in today's world. Despite the importance highlighted, the literatures on knowledge sharing indicated low level of knowledge sharing behaviour in the particular context of the researches (Abdur-Rafiu and Opesade, 2015; Evangelista and Durst, 2015; Ramayah et al., 2013; Stenius, Hankonen, Ravaja, and Haukkala, 2016). The state of knowledge sharing behaviour is in alarming condition considering its significant role as one of the main component of knowledge management (Saade, Nebebe, and Mak, 2011). This situation calls for further research in discovering the factors for knowledge sharing behaviour especially environmental knowledge sharing behaviour in the context of this study.

There are numerous studies found investigating the knowledge sharing intention and behaviour within the organisational context (Bock, Zmud, Kim, and Lee, 2005; Chennamaneni, Teng, and Raja, 2012; Huang and Chen, 2015; Kuo and Young, 2008; Reychav and Weisberg, 2010; Stenius et al., 2016; Tsai et al., 2012; Yang and Chen, 2007) while little has been found related with the academics community (Abdur-Rafiu and Opesade, 2015; Isika, Ismail, and Ahmad Khan, 2013; Jolaee, Md Nor, Khani, and Md Yusoff, 2014; Ramayah et al., 2013). However, there is very limited information regarding the environmental knowledge sharing behaviour. Therefore this paper aims to fulfil the gap in determining the influence promoting environmental knowledge sharing behaviour. While multiple studies done using TPB in analysing the knowledge sharing behaviour (Chennamaneni, 2006; Chennamaneni et al., 2012; Isika et al., 2013; Reychav and Weisberg, 2010; Stenius et al., 2016; Wu and Zhu, 2012), very little recent study has been done incorporating the environmental element knowledge sharing in the developing countries

environment. Besides, most of the researches conducted with regards to environmental behaviour focused more on the general ecological behaviour towards the environment and its element (Albayrak, Aksoy, and Caber, 2013; Onel and Mukherjee, 2016; Suki, 2013) however, the study in environmental knowledge sharing area remain scarce.

Besides, regardless of vast studies conducted incorporating TPB in determining knowledge sharing behaviour, the study that tested the mediation role of behavioural intention is lacking (Mafabi, Nasiima, Muhimbise, Kaekende and Nakiyonga, 2017). Even some studies in this field tend to focus on additional elements predicting knowledge sharing behaviour such as trust and commitment (Abdur-Rafiu and Opesade, 2015), organisational environment as well as technological factors (Tohidinia and Mosakhani, 2010; Haque, Ahlan and Razi, 2016) rather than the mediation role of behavioural intention from the theory. Theoretically, behavioural intention element in TPB acts as a mediator towards the relationship between the predictors attitude, subjective norms and perceived behavioural control with behaviour (Ajzen, 1991).

This study will attempt to identify the environmental knowledge sharing behaviour using TPB focusing the Malaysian environment representing developing country. Besides, this study also seeks to examine the environmental knowledge sharing behaviour from the context of accounting education. From the literature review, it has been found that most of the studies related to the environmental knowledge sharing are considered open focus on the public responsibility towards the environment and hardly any study conducted relating to environmental knowledge sharing from students' point of view as the future accountants or professional. Consequently, this study will examine the environmental knowledge insight from a different perspective as this study will focus on the environmental knowledge sharing behaviour among accounting students representing the future accountants in Malaysia.

Hence, the main purpose of this study is to examine if the attitudes, subjective norms, perceived behavioural control and environmental knowledge will have impact on the intention and the behaviour to share the knowledge and responsibility on environmental knowledge as well as the mediating role of intention to share environmental knowledge towards environmental knowledge sharing behaviour. Also the study sought to incorporate environmental knowledge construct in the Theory of Planned Behaviour in examining the environmental knowledge sharing intention and behaviour among accounting students.

1.3 Research questions

This study seeks to examine if the attitudes, subjective norms, perceived behavioural control and environmental knowledge will have impact on the intention and behaviour towards knowledge sharing of environmental issues and whether the intention mediates the influence of attitudes, subjective norms, environmental knowledge and perceived behavioural control towards environmental knowledge sharing behaviour. Therefore, the research questions this study attempts to answer are:

1. Does the attitude, subjective norms, perceived behavioural control and possession of environmental knowledge influence the intention to share environmental knowledge?
2. Does perceived behavioural control and intention to share environmental knowledge influence the environmental knowledge sharing behaviour?
3. Does intention to share environmental knowledge mediates the influence of attitude, subjective norms, perceived behavioural control and possession of environmental knowledge towards environmental knowledge sharing behaviour?

1.4 Research objectives

The objectives of this research are:

1. To examine the relationship between attitudes, subjective norms, perceived behavioural control and possession of environmental knowledge to the intention to share environmental knowledge.
2. To examine the relationship between perceived behavioural control towards environmental knowledge sharing and intention to share environmental knowledge to the environmental knowledge sharing behaviour.
3. To examine the relationship between attitudes, subjective norms, perceived behavioural control and possession of environmental knowledge to the environmental knowledge sharing behaviour by the mediating role of intention.

1.5 Significance of the study

The reviews done in performing this study found that there are very limited literatures concerning environmental knowledge sharing behaviour especially in the higher learning institute or related to accounting education. This study will contribute to the knowledge sharing behaviour literature by providing useful information relating to environmental knowledge sharing behaviour from the academics context particularly in the students' perspective in addition to existing knowledge sharing behaviour literatures in organisational setting.

In addition, this study contributes to the extension of study in Theory of Planned Behaviour by incorporating environmental knowledge as additional construct in determining the

environmental knowledge sharing behaviour. Since this study is performed as a preliminary study on environmental knowledge sharing behaviour, therefore the results and information obtained from this study can be a basis that provide required basic information in relation to the topic researched. Besides, this study also stresses on the importance adequate environmental knowledge specifically in accounting studies to the students since it might be useful in fulfilling the organisation sustainability responsibility in the corporate world later.

1.6 Population and scope of the study

This study is conducted to identify the factors influenced the environmental knowledge sharing behaviour among the Accounting students in Universiti Utara Malaysia (UUM). The data for this study is mainly concentrated by selecting sample from the accounting students from Tunku Intan Safinaz School of Accountancy (TISSA) of Universiti Utara Malaysia (UUM). These students vary from different undergraduates programs which are Bachelor of Accounting (Hons) and Bachelor of Accounting (IS) (Hons). The accounting students in higher learning institutions are chosen as the focus area because of their status as the future accountants and accounting professionals. Besides, there are less empirical study has been conducted on environmental knowledge sharing in education context as compared to an organisational context (Yuen and Majid, 2007). Therefore, this study in conducted with the view from students' perspective.

This study focuses on the accounting students as knowledge obtained in the higher learning institutions can help students to become a good future accountant for various organisations. As for now, many countries including Malaysia emphasise on the importance to embed and report the sustainability activities of their respective organisations in the annual report. This

situation reflects the increasing responsibility for the accountants in promoting the organisational operation as well as the environmental sustainability. The significant social and environmental challenges require accountants to have ability and capability to supply and report such environmental information to the stakeholders. Serious environmental issues and worsening environmental condition resulting from organisational operation lead to the world community concerned about the state of the environmental accounting and auditing systems as it bears sustainability on the mother earth for future generations (Mohammad, 2012).

Therefore, as accounting students will become a future accountant, the exposure to environmental education begins at the university level. With the acquisition of adequate environmental knowledge, there is higher tendency for them to share this knowledge when they start working and directly involved in the real world as an accountant. From this knowledge, they will be able to well understand the environmental issues and challenges as well as able to play a significant role in preparing sustainability report and capturing non-financial information regarding sustainability (Gray and Collison, 2002). Jones and Abraham (2008) stated that "while the traditional technical accounting skills are greatly valued by the profession, there is also recognition that interpersonal attributes are highly desired and need to be developed further".

1.7 Definition of terms

Environmental knowledge

Environmental knowledge is the amount of information that individuals have concerning environmental issues and their ability to understand and evaluate the positive and negative impact on society and the environment (Chekima, 2016; Ergen, 2014).

Knowledge sharing behaviour

Knowledge sharing behaviour refers to the act of communicating and disseminating ones acquired job-related knowledge, either explicit or tacit, with other members within one's organisation (Pangil and Mohd Nasurdin, 2008).

Theory of planned behaviour

Theory of Planned Behaviour (TPB) is a theory designed to predict and explain human behaviour in specific contexts of three variables; attitude, subjective norms and perceived behavioural control (Ajzen, 1991).

1.8 Conclusion

This chapter has outlined the introduction of the study, problems under investigation, research objectives, purpose and significance of the study, scope as well as definition of terms used. The remaining of this study is organised as follows. Chapter 2 reviews the literature related to the concepts of the study, discusses on the underlying theory which is the Theory of Planned Behaviour and reviews on the empirical studies relating to the topic. Chapter 3 presents the conceptual framework, development of hypotheses, sample, data collection method and method use for data analysis. The results of the study will be then discussed in Chapter 4. The final chapter, Chapter 5 presents the discussion of the results highlights the implications of the results, limitation of the study and recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter introduces the literatures related to the study academically especially in the scope of environmental knowledge and knowledge sharing behaviour. This chapter will discuss about concept and dimensions of study that has been explain in previous research and provide the fundamental information useful to better understand the topics. In addition, this chapter discusses the theoretical perspective of environmental knowledge sharing behaviour using Theory of Planned Behaviour (TPB). The empirical review in this study based on the past research will provide the overview on the studies performed in this field of research as well as the related findings.

2.1 Conceptual review

This conceptual review aims to highlight the concept of the variables and terms used in this study as being discussed in the previous literatures. The review will be able to provide insight and explanations on the related concept used and promote the understanding on the study.

2.1.1 Environmental knowledge

The attention towards environmental knowledge is developing consistently with the growing of sustainability awareness. Environmental knowledge is basically the understanding regarding environmental problems and issues as well as possible ways and responsible steps to solve the problems (Kaufmann, Panni, and Orphanidou, 2012; Zsóka, Szerényi, Széchy,

and Kocsis, 2013). Environmental knowledge related to one's ability to identify or define environmental symbols, concepts and behaviours influence by the attitudes and behaviour toward the environment (Laroche, Bergeron, and Barbaro-Forleo, 2001).

The concern on the environmental issue is growing tremendously due to major environmental events and phenomena happening around the globe such as greenhouse effect, scarcity of natural resources, global warming and many more. Knowledge and insights regarding the environmental condition is very important for environmental sustainability as they provide the understanding and awareness on current environmental condition which can be obtain through continuous environmental education not limited to any group of people. The campaign for spreading environmental knowledge had started way back in 1972 in the United Nations Conference on the Human Environment. The conference which had brought to agreement 26 environment and development principles as one major effort to protect the environment for future generation (United Nations, 1972). This conference had been the pioneer for many more environmental programs and agreements held by the major world power.

The development of environmental efforts and growing awareness in environmental knowledge brought the global organisations to the world's first Intergovernmental Conference on Environmental Education from the collaboration of UNESCO (United Nations Education, Scientific and Cultural Organisation) with United Nation Environment Program (UNEP) in Tbilisi back in year 1977. The conference gave attention on the importance of developing environmental knowledge at all levels regardless local or global concern as well as basic environmental education either in formal school system or informal learning background. The environmental education has been formally defined as "a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has knowledge, attitudes, motivations, commitments

and skills to work individually and collectively towards solutions of current problems and the prevention of new ones" (UNESCO, 1977).

Consequently, it signifies the serious importance of environmental knowledge in the early years and the increasing importance of environmental knowledge and awareness considering current worsen environmental condition (Lateh and Muniandy, 2010). The conference had greatly contributed to the development of environmental knowledge and awareness around the world. Years had passed and several series of campaign on environmental awareness conducted. As of today, the latest Sustainability Development Goals (SDGs) was released with the main aim to achieve sustainability for the environment as well as the quality of living on earth (United Nations Development Programme, 2016). Despite many challenges in dealing with various problems related to environmental issues and environmental knowledge development, the effort taken to deliver this important knowledge never ends.

Lacking in environmental knowledge and awareness can be a tough and difficult in dealing with current environmental condition which is facing destruction with the industrial revolution (Aminrad et al., 2012; Hausbeck, Milbrath, and Enright, 1992). Environmental knowledge can influence the pro-environmental action and behaviour including the transfer of knowledge and value (Zsóka et al., 2013). Transfer of environmental knowledge can be a very useful mean in spreading the sustainability awareness and subsequently assists in promoting pro-environmental behaviour. Vicente-Molina, Fernández-Sáinz, and Izagirre-Olaizola (2013) believed that if current younger generation is capable in making pro-environmental decision, future civilisation will advance along the path towards sustainability. The knowledge related to environmental sustainability can be extensively obtained due to the development of information technology (Mahat and Idrus, 2016). Hopefully, this situation can be a stepping stone towards a more productive environmental knowledge sharing practise.

Environmental education provides the knowledge to understand the interaction of human and environment and in what manner human need to manage and care for the environment towards a harmony and peaceful life (Gray and Collison, 2002). Aside from the basic environmental knowledge, there are increasing concerns regarding the environmental education inclusion in the context of accounting education. It is believed that accounting has its own role in serving the public interest by contributing to the pursuit of environmental and organisational sustainability and the necessary knowledge can be obtained through the education and training system (Gray and Collison, 2002). The companies operated in the environmental sensitive industries are especially expected to have extra care and concern on the social and environmental impact to the surrounding arise from their activities (Amran et al., 2010).

The inclusion of environmental component into accounting education especially in Malaysia is expected able to contribute necessary skills and knowledge to fulfil the industrial obligation. Environmental management accounting helps to exhibit the necessity for developing countries to address environmental concern, even in the urgency of economic sustainability (Burritt, 2004). The extensive knowledge related to sustainability accounting and environmental challenges in industry are compulsory for improvement of environmental accounting (Bebbington, Gray, Thomson, and Walters, 1994). 'Accounting for the environment' involves many components from current accounting practice such as contingent liabilities and provisions (Bebbington et al., 1994). Proper understanding on the importance of environmental sustainability education in accounting could be a step forward towards sustainable development (Mohammad, 2012).

2.1.2 Knowledge sharing behaviour

Effective knowledge sharing practise is a significant element of knowledge management (Aliakbar, Md Yusoff, and Nik Mahmood, 2012). Knowledge sharing is essentially the joint process of knowledge interchange between two or more people relating to certain topic of discussion where an effective knowledge sharing process fulfil the needs of knowledge among the parties (Isika et al., 2013). Basically it reflects a process which useful knowledge is disseminated or traded among individuals (Onaifo and Quan-Haase, 2015). The purpose of knowledge sharing practise is to learn and joint knowledge from the basic knowledge up to specialised knowledge in some field (Wu and Zhu, 2012). Knowledge sharing also can be done through any medium whether it is physical or virtual medium and it involves the participation of behaviours and perspectives with regard to the ideal type of knowledge and the extent of behaviour to result in successful knowledge transfer (Stenius et al., 2016). The sharing could be done directly via direct verbal communication or indirectly via some knowledge archive such as the participation of technology in knowledge sharing (Bock et al., 2005).

Commonly, people who have the intention to share their knowledge with others aims not only to elevate their learning level and capabilities but also as an effort in conveying knowledge and information for general benefits (Collis and Moonen, 2009). Furthermore, knowledge sharing activities do not only mean for exchange of meaningful information but it also aids in applying the knowledge where necessary (Law, 2009). From the context of an organisation, active knowledge sharing may help in improving communication and collaboration between organisational members and consequently contributes to mutual success of the organisation and the people (Vat, 2008). Besides, knowledge sharing practice among multiple entities helps to address critical issues concerning organisational capabilities and competency in face of increasingly instable environmental change (Fang and Dutta, 2008). The exchange of knowledge can happen between and among individuals or teams as well as organisational

units which can either be focused or unfocused. Subsequently people benefited from the development of knowledge (King and He, 2011).

Knowledge sharing behaviour is more about a manner or behavioural routine of sharing what they know with everybody. The organisational management can implement knowledge sharing behaviour as the norms or value of the organisation emphasising on the long-term effects which would bring an opportunities for every members of the organisation to be part of company's asset (Zin, 2013). It is beneficial for an organisation to stress on knowledge sharing behaviour among organisational members which involve exchanging of information or assistance with each other and probably can contribute to effectiveness and efficiency in the organisational operation (Connelly and Kelloway, 2003).

Despite the fact that the factors that influence knowledge sharing behaviours can be speculated, it is important to examine and understand the fundamentals of knowledge sharing in order to contribute to knowledge sharing practice (Wu and Zhu, 2012). In order to realise successful knowledge sharing, it is important to understand further implication related to knowledge sharing behaviour since there are various factors that promote or impede knowledge sharing (Tsai et al., 2012). There are some challenges towards knowledge sharing practice. Numerous factors stand in between knowledge sharing practise and successful knowledge sharing. Asrar-ul-Haq and Anwar (2016) studied on the potential issues and challenges obstructing the knowledge sharing practice. Further study done by Phung, Hawryszkiewycz, and Binsawad (2016) summarised the barriers to effective knowledge sharing to three main categories mentioned as "the major critical barriers".

The hurdles towards effective knowledge sharing identified from the study are individual barriers, organisation barriers and technology barriers. "Individual barriers" made up of psychological ownership, lack of motivation and lack of trust. Meanwhile the "organisation

barriers" consisted of lack of rewards and recognition systems, lack of organization culture and lack of leadership. Despite the rapid development of information technology which assists the improvement of knowledge sharing, "technology barriers" had been identified as the third barriers comprised of lack of technical support as well as insufficient technology infrastructure. These problems identified should be rectified in order to ensure proper application of knowledge sharing.

2.2 Theory of planned behaviour

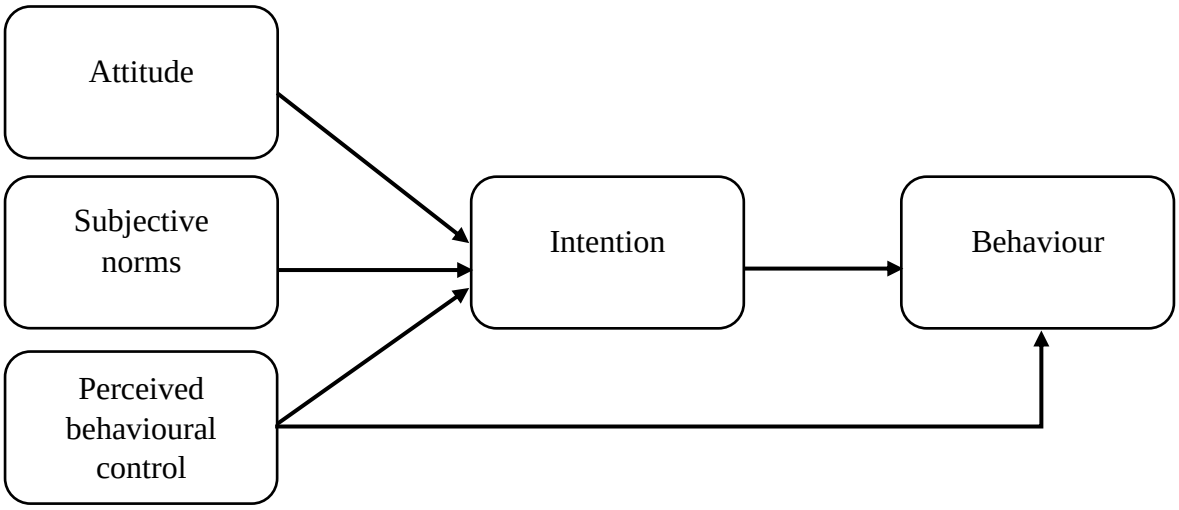
Theory of Planned Behaviour (TBP) is vastly used to understand human behaviour and is also considered as a critical base to understand individual's knowledge sharing behaviour (Aliakbar et al., 2012). It was developed as the extension to the component of the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975) which described human behaviour by tracing the causal links from beliefs, through attitudes and intentions, and finally resulted to actual behaviour of an individual (Ajzen, 1985). The constructs made up the theory of reasoned action applied to behaviours that are under volitional control however, its predictive accuracy weakened when the behaviour is influenced by other factor which cannot be controlled. Therefore, theory of planned behaviour was developed to expand the theory of reasoned action and in order to deal with the behaviours of this kind (Ajzen, 1991).

The additional of Perceived Behavioural Control (PBC) construct enables the theory to explain behaviours in which a person does not have volitional control over it (Ajzen, 1991). Ajzen explained volitional control as "how a person could perform a given behaviour if he or she intends to do so, and they are refraining from performing that behaviour if they do not have the intention to do it". The TRA is capable of explaining behaviours of a person in the

condition that it is under volitional control. However, the internal and external constraints in real life situation that might refrain a person from performing the intended behaviours which is cannot be justified clearly in the TRA (Ajzen, 1985; Armitage and Conner, 2001). Even though a person may have the intention to perform a particular behaviour, he or she may not do so eventually due to these constraints. Therefore, PBC is included as an additional construct to predict human behaviours when they do not have volitional control over the situation.

In order to use TPB in analysing the intention and behaviour, there are three main constructs building up the theoretical framework of the said theory. Based on the theoretical framework as shown in Figure 1, the attitude, subjective norms and perceived behavioural control constructs influence an individual's intention to perform certain behaviour. Meanwhile, intentions acted as the mediators between the constructs towards behaviour. Perceived behavioural control on the other hand, is believed to have influence on an individual's behaviour (Ajzen, 1991). Attitude represents ones beliefs about the effects and consequences of performing the behaviour instinctively by his or her evaluation of these actions, subjective norms represents a person's sensitivity on what most people who are important to him or her think he should or should not do the behaviour in concern and lastly, perceived behavioural control which reflects on a person's perceived ease or difficulty in performing certain behaviour (Dezdar, 2017).

Figure 1: Theory of Planned Behaviour (Ajzen, 1991)



2.2.1 Components of TPB

1. Attitude

   Attitude as interpreted by Ajzen (1991) is "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question". Meanwhile, attitude in the view of Armitage and Conner (2001) is the overall positive or negative evaluations of a particular behaviour. Attitude a person has towards certain behaviour reflects the person's overall positive or negative opinion of performing a particular behaviour. Generally, the more favourable the attitude ones has towards the behaviour, the stronger should be the intention to perform it (Chennamaneni, 2006).

   The favourable or unfavourable feeling towards certain behaviour is also determined by personal behavioural beliefs about the possible outcome of the behaviour. Based on the current studies in TPB, the attitude towards certain behaviour consists of two components which are affective and cognitive attitudes. Affective attitude reflects enjoyment or pleasure associated with performance of the behaviour and cognitive attitude reflects perceived benefit an individual has about performing a particular behaviour (Courneya, Bobick, and Schinke, 1999; Huang and Chen, 2015).

2. Perceived behavioural control

Perceived behavioural control (PBC) refers to people perception of the ease or difficulty of performing certain behaviour. People behaviour is strongly influenced by their confidence in their ability to perform it. PBC construct is held to influence both intention and behaviour to perform a particular action (Armitage and Conner, 2001).

There are two assumptions of PBC. The first assumption is that is has an indirect effect on behaviour through behavioural intention. For instance, a person may have positive attitudes towards behaviour and perceives that significant others will support them over exercising the behaviour. Conversely, if the person perceives to have very little or no means and opportunities to exercise the behaviour, it is unlikely the person will have strong intentions to exercise the behaviour (Ajzen, 1991).

The second assumption on PBC is that PBC has direct influence towards behaviour. This assumption support the theory held by Ajzen that when the particular behaviour is not completely under the volitional control of the individual, PBC can directly influence behaviour to the extent that PBC accurately reflects actual control and ability of performing an action (Ajzen, 1991).

3. Subjective norms

The subjective norms towards certain behaviour reflect a person's perception of the social pressures from people in surrounding to perform or not to perform certain behaviour. Most people intend to perform a behaviour when they evaluate it positively and when they believe that people who are important to them think that they should perform it (Ajzen, 1985). Therefore, subjective norms refer to the individual's perceptions of general social pressure to perform or not to perform the behaviour. If an individual perceives that significant others support or disapprove of the behaviour, they are more or less likely to have intention to perform it (Armitage and Conner, 2001).

The existence of subjective norms in analysing human behaviour shows that there may be some situations where behaviour is simply not under the attitudinal control of an individual, rather, the expectations from others in the surrounding may be a major influence in ultimate behavioural performances.

4. Intention

Behavioural intention acts as the central factor in determining human behaviour in TPB. Intentions in TPB act as the motivational factor which influences individuals' behaviour. Intention also indicates whether people want to perform certain behaviour as well as the intensity of effort they are putting in performing the behaviour. As a general rule, the stronger the intention to engage in a behaviour, the more likely it will be performed (Ajzen, 1991).

Aside from being a direct determinant towards individual's behaviour, behavioural intention acts as a mediator towards the relationship between the predictors in TPB which are attitude, subjective norms and perceived behavioural control with the actual behavioural performance (Ajzen, 1991). The effects of these constructs towards intention might influence the effect towards performance of the behaviour in concern. This implied the need for intention as a mediator to link individuals' behaviour controllability and perceived ability to the actions of knowledge sharing (Mafabi et.al, 2017).

At large, intention towards behaviour is determined by three conceptually distinct social cognitive constructs which are as attitude, subjective norms and perceived behavioural control (Duerden and Witt, 2010). Conclusively, the more favourable the attitude, subjective norm, and PBC towards certain behaviour, the stronger should be the individual's intention to perform the behaviour (Ajzen, 1991).

2.2.3 Inclusion of environmental knowledge construct in TPB

This study has considered the inclusion of environmental knowledge construct to the Theory of Planned Behaviour (TPB) as it is believed that possession of environmental knowledge can have impact towards environmental knowledge sharing behaviour. In addition, Berkes, Colding, and Folke (2000) and Houde (2007) believed that the traditional ecological knowledge (TEK) which is the indigenous knowledge build of socio-ecological knowledge, practices and beliefs inherited by the communities through adaptive process over time across generation is a basic component of the environmental knowledge. There are numbers of research done in order to investigate the relationship between the possession of environmental knowledge and the environmental behaviour represented the significance of knowledge in determining ones behaviour towards certain environmental situations or issues.

Yadav and Pathak (2016) had addressed the theoretical and empirical support for inclusion of the environmental knowledge construct in the TPB for measuring the environmental behaviour. When environmental issues become the topic of interest, the knowledge about environment tends to change environmental related attitude and individuals' behaviour is influenced by their environmental knowledge. Besides, having knowledge about environmental matter can be an influence to practise pro-environmental behaviour. Mostafa (2007) had pointed out that the environmental knowledge is one of the crucial variables that affect people's environmental behaviour. The study found that the environmental knowledge significantly influence the attitude which further influences ones environmental intention.

2.3 Empirical review

The empirical review provides the overview of past researches done related with the field of study. In addition, the results and findings from the researches which might be useful to the execution of this study is reviewed and discussed.

2.3.1 Knowledge sharing behaviour

A lot of studies had been done in relation to knowledge sharing behaviour. Since knowledge sharing behaviour is considered as an important matter, extensive studies carried out in order to examine its antecedents from various context including individuals, organisations, communities, public sectors and also academics. Besides difference in the research scopes, the studies in knowledge sharing also tested the influence of different theories towards knowledge sharing behaviour. The variation in research subjects and theories is mainly to test the element of knowledge sharing empirically in determining the influence of different research design and approach towards the general effect on knowledge sharing behaviour. However, for the purpose of this study, the empirical review on knowledge sharing behaviour studies focused on the application of Theory of Planned Behaviour towards knowledge sharing behaviour.

The literatures suggested that there are a lot of constructs that influence knowledge sharing behaviour either in individual or a group context. The TPB constructs which consist of attitude, subjective norms and perceived behavioural control are determined to have positive and significant influence towards knowledge sharing behaviour (Jolaee et al., 2014; Killingsworth et al., 2016; Tohidinia and Mosakhani, 2010; Wu and Zhu, 2012). Meanwhile, study done by Abdur-Rafiu and Opesade (2015) found that the attitude and subjective norms towards knowledge sharing had negative influence to knowledge sharing behaviour of the

academician in the study. The result from this study indicated that they might not have a favourable outcome from the performance of knowledge sharing. Besides, the social norms influence from other people in the surrounding who does not support or conform to the knowledge sharing behaviour hindered the intention of performance. On the other hand, Isika et al. (2013) found positive relationship between attitude towards knowledge sharing with knowledge sharing behaviour but it was also discovered that social norms had no impact on the knowledge sharing behaviour therefore they believed that the result may be due to personal independent behaviour of individuals and require no influence from other people in performance of behaviour.

Kuo and Young (2008) believed that favourable intention towards knowledge sharing did not necessarily lead to knowledge sharing behaviour. Their study showed positive relationship of attitude and subjective norms towards knowledge sharing intention; but the intention did not influence the behaviour towards knowledge sharing performance. Therefore, it proved the existence of gap between intentions to action. The researcher believed that an individual behaviour could be influenced by the value or culture of the community. The statement is agreeable since the study was done in Taiwan environment where sharing knowledge publicly may be interpreted as an arrogant act and is discouraged. Besides, most individuals tend to share their knowledge with close friends to protect themselves from unexpected damaging consequences or negative reactions from unfamiliar people.

In addition, in conforming to the theory, some studies had been conducted in relation to the mediating role of intention in determining knowledge sharing behaviour. Mafabi et.al (2017) in the study investigating knowledge sharing behaviour of medical practitioners found insignificant relationship of attitude, subjective norms, and perceived behavioural control towards knowledge sharing but the mediating role of intention facilitated the relationship between the constructs towards knowledge sharing behaviour. Rahman, Osmangani, Daud

and AbdelFattah (2016) emphasised the dominant role of intention as a mediator between attitude and subjective norms in determining knowledge sharing behaviour. It is also determined that the behavioural intention has a significant role in improving the relationship between attitude and subjective norms constructs and knowledge sharing behaviour. In addition to the literatures, the study related to knowledge sharing among academicians by Skaik and Othman (2014) also indicated the mediating effects of behavioural intention towards performance of knowledge sharing.

2.3.2 Environmental knowledge

Attitudes and behaviour for environmental sustainability can be obtained through experiences especially in informal educational settings which provides important opportunities that are hardly possible in more formal education contexts (Ballantyne and Packer, 2006). Ballantyne and Packer (2006) also believed an active measure in promoting knowledge sharing is favourable especially in sharing of experiences which can contribute potential benefit for development of environmentally sustainable attitudes and behaviour. Changes in pro-environmental behaviour may involve changes in lifestyle, discussion on environmental issues, involvement in environmental volunteer programmes, or donating to environmental organisations.

Environmental knowledge had been widely tested for its influence on pro-environmental behaviour although limited studies found investigating the relation between environmental knowledge towards knowledge sharing behaviour. Meinhold and Malkus (2005) in their study have indicated that the relationship between eco-friendly attitudes and behaviour is far stronger among those teenagers that had more environmental knowledge in comparison to those who had less knowledge about it. Aman, Harun, and Hussein (2012) found the significant direct influence of environmental knowledge towards pro-environmental behaviour. In addition, Fraj-Andrés and Martínez-Salinas (2007) determined that higher level

of environmental knowledge influences individuals' ecological behaviour and also reflected through their interest and concern for the environment related matters.

By large, with environmental knowledge, people have more favourable attitude and subjective norms with respect to an environmental behaviour led to greater environmental perceived behavioural control and stronger individual's intention to perform environmental behaviour. It is indicated that individuals' overall environmental consciousness has a positive impact on pro-environmental behaviour (Schlegelmilch, Bohlen, and Diamantopolous, 2000). Furthermore, Duerden and Witt (2010) believed that behavioural intentions are influenced by an individual's knowledge attitudes towards the execution of behaviour in interest.

In addition, the TPB suggests that an individual's intention to engage in a particular behaviour is the best predictor of the actual behaviour. The application of TPB in determining pro-environmental behaviour as conducted by Bamberg and Möser (2007) indicated the significant role of intention as a mediator in the relationship between psycho-social determinants towards the performance of pro-environmental behaviour. This conform the mediating role of intention in predicting behavioural performance as suggested by Ajzen (1991).

2.4 Conclusion

This chapter has explained the conceptual part of the study. It has discussed the operational definition of environmental knowledge and knowledge sharing behaviour as well as the underlying theory uses in this study which is Theory of Planned Behaviour in addition to explanation on the constructs of the theory. Since additional construct has been added to the theory for the purpose of this study, the justification for inclusion of environmental

knowledge construct has been included. Finally, the empirical review has been critically discussed with regards to the topic of discussion in this paper. The Theory of Planned Behaviour will be further analyse in the later part of this study to examine the environmental knowledge sharing behaviour.

CHAPTER 3

RESEARCH METHODOLOGY

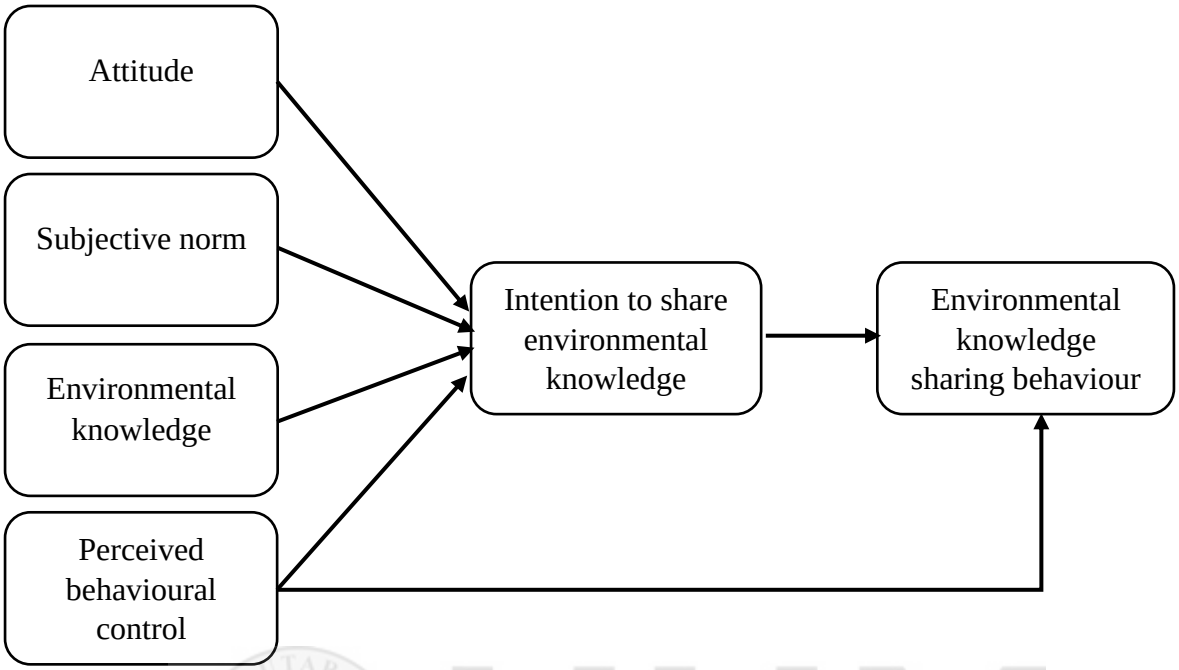
3.0 Introduction

This chapter discusses about the methodology engaged in this study for organising and interpreting the data collected to produce understanding regarding the study. This research methodology explains the conceptual framework, development of hypotheses, sample, research instrument, scale of measurement, data collection and analysis method, also statistical testing and analysis.

3.1 Conceptual framework

This study uses Theory of Planned Behaviour (TPB) as the underlying theory in examining the environmental knowledge sharing behaviour. As discussed in the earlier section of this study, the main components of TPB consisted of attitude, subjective norms, and perceived behavioural control. In addition to the TPB by Ajzen (1991), environmental knowledge is included as the additional construct in order to determine the possible relationship or influence towards environmental knowledge sharing behaviour. With the inclusion of additional construct into the existing theory, a conceptual framework has been developed to put emphasise on the variables tested in determining environmental knowledge sharing behaviour. Figure 2 below shows the conceptual framework developed and tested in this study.

Figure 2: Conceptual Framework



3.2 Hypotheses development

The hypotheses for this study are determined through possible relationships between the variables in the conceptual framework. The influence of the variables attitude, subjective norms, environmental knowledge, perceived behavioural control and intention to share knowledge towards environmental knowledge sharing behaviour are empirically analysed to determine whether the hypotheses developed for the study are supported or not.

3.2.1 Attitude towards intention to share environmental knowledge

According to TPB, the attitude is formed from a collection of underlying behavioural beliefs about the expected outcomes of behaviour and the favourable or unfavourable evaluation of these outcomes. In the context of environmental knowledge sharing, it is reflected on the favourable or unfavourable belief towards knowledge sharing. Empirical findings in previous

research suggested attitude influenced the intention to perform certain behaviour (Ajzen, 1991; Bock and Kim, 2001; Chennamaneni et al., 2012; Jolaee et al., 2014) particularly the performance of knowledge sharing behaviour (Ramayah et.al, 2013; Tohidinia and Mosakhani, 2010; Wu and Zhu, 2012). Meanwhile, the prior studies in determining pro-environmental behaviour shown positive influence of attitude towards pro-environmental performance (Chen, 2016; Chen and Tung, 2014; Yadav and Pathak, 2016) Thus,

H1 – The attitude towards environmental knowledge sharing influence the intention to share environmental knowledge.

3.2.2 Subjective norms towards intention to share environmental knowledge

The subjective norms refer to an individual's perception of the social pressure from important people around to perform or not to perform a specific behaviour of interest. In the context of environmental knowledge sharing behaviour, subjective norms reflects and individual's perceptions of whether the knowledge sharing behaviour in concern is approved or expected by important people around them. Some studies have reported lack of statistical significance between subjective norms and behavioural intention (Isika et al., 2013; Jolaee et.al., 2014). However, numerous past studies supported the influence of subjective norms towards behaviour (Ajzen, 1991; Chennamaneni et al., 2012; Wu and Zhu, 2012; Yang and Chen, 2007; Zhang and Jiang, 2015). Thus,

H2 – The subjective norms towards environmental knowledge sharing influence the intention to share environmental knowledge.

3.2.3 Possession of environmental knowledge towards intention to share environmental knowledge

Having environmental knowledge is said to have influence on individual's environmental behaviour. In the context of this study, the concern is whether the possession of

environmental knowledge encouraged people to share their environmental knowledge with others. The empirical findings in study of environmental knowledge supported the influence of knowledge with environmental behaviour (Aman et al., 2012; Fraj-Andrés and Martínez-Salinas, 2007; Frick, Kaiser, and Wilson, 2004; Mifsud, 2011; Suki, 2013; Vicente-Molina et al., 2013; Zsoka, 2013). Thus,

H3 – The possession of environmental knowledge influence the intention to share environmental knowledge.

3.2.4 Perceived behavioural control towards intention to share environmental knowledge and environmental knowledge sharing behaviour

Perceived behavioural control (PBC) refers to the perceived ease or difficulty of performing a behaviour in question and a personal sense of control over performing it (Ajzen, 1991). Theoretically, PBC construct in TPB have multiple influences. Firstly, similar with attitude and subjective norms construct, PBC influence the intention. Secondly, both intention and PBC influence the actual behaviour. The effect of PBC on intention and behaviour are empirically proven from past studies (Abdur-Rafiu and Opesade, 2015; Ajzen, 1991; Bock and Kim, 2001; Chennamaneni, 2006; Isika et. al., 2013; Ramayah et. al., 2013; Tohidinia and Mosakhani, 2010). Thus,

H4 – Perceived behavioural control towards environmental knowledge sharing influence the intention to share environmental knowledge.

H5 – Perceived behavioural control towards environmental knowledge sharing influence the environmental knowledge sharing behaviour.

3.2.5 Intention to share knowledge and environmental knowledge sharing behaviour

Behavioural intention is the motivational factor that show individual's willingness to perform a behaviour (Ajzen, 1991). As per the theory, intention is the primary determinant of behaviour where justify whether an individual carry out what he or she intends to do. The existence of intention towards particular behaviour indicated the readiness to perform the behaviour in concern. The relationship of behavioural intention and behaviour is supported in the prior studies (Ajzen, 1991; Bock et.al., 2005; Bock and Kim, 2001; Chennamaneni et.al., 2012; Isika et.al., 2013; Jolaee et.al., 2014; Rahman et.al., 2017; Ramayah et.al., 2013; Tohidinia and Mosakhani, 2010).

On the other hand, intention also acts as a mediator between attitude, subjective norms and perceived behavioural control towards actual behaviour. The intention that an individual has towards performing behaviour could mediate the effects from attitude, subjective norms and perceived behavioural towards the performance of the actual behaviour. The relationships of intention role as a mediator are supported in prior studies (Ajzen, 1991; Bamberg and Moser, 2006; Mafabi et.al, 2017; Rahman et.al, 2016; Skaik and Othman, 2014). Thus,

H6 – Intention to share environmental knowledge influence the environmental knowledge sharing behaviour.

H7 – Intention to share environmental knowledge mediates the influence of attitude, subjective norms, environmental knowledge and perceived behavioural control towards environmental knowledge sharing behaviour.

3.3 Sampling Method

Sampling method is a fundamental process for most of the researches especially in social science research. It helps researcher and reader to understand easily the research process and in analysing the data. Sampling refers to the process of selecting sufficient portion from the population of study to be examined in order to get the representation that explained the population (Cavana, Delahaye and Sekaran, 2000). According to Sekaran (2003), population refers to the entire group of people, events, or things of interest that can be a focus for the researcher to investigate.

3.3.1 Population

The unit of analysis for this study is individual. The population chosen for this study is the undergraduate students from Tunku Intan Safinaz School of Accountancy, Universiti Utara Malaysia (TISSA-UUM). The population is chosen considering the aim of the study in determining the environmental knowledge sharing behaviour among accounting students. The total population involved in this study made up of 1,053 students from Bachelor of Accounting (Hons) and 315 students of Bachelor of Accounting (IS) (Hons) of TISSA-UUM.

3.3.2 Sampling technique

It is difficult to perform the study involving the entire population of interest, therefore a sample is used to obtain the representative of the population. For the purpose of this study, simple random sampling is used to select 250 undergraduate students from TISSA-UUM. Simple random sampling treats each element in the population as being equally important therefore, the probability of each students to be selected is equal.

3.3.3 Sample size

The sample of this study comprises of 250 students of TISSA-UUM randomly selected. According to Roscoe (1975) in Sekaran (2003), the sample sizes of larger than 30 and less than 500 are appropriate for most research. Therefore, 250 samples selected for this study is seemed adequate. This study is designed to analyse the factors influence environmental knowledge sharing behaviour among the accounting students. Therefore, the sample selected might be able to provide insights and information needed in performing the study.

3.4 Data Collection Method

This study uses questionnaires method for data collection. A questionnaire is a written set of questions which the respondent individually answer the question. Questionnaires are an effective data collection instrument when the researcher is certained on what is required and knowing how to measure the variables of interest (Cavana et.al., 2000). Questionnaires can be administered personally, mailed to the respondents, or electronically distributed (Sekaran, 2003).

The questionnaires are self-administered to the selected samples of this study. The main advantage of self-administered questionnaire is that the researcher can collect all the completed responses within a short period of time. Besides that, researcher can assist to clarify any doubts that the respondents might have. The researcher is also able to introduce and provide basic information regarding the topic. Administering questionnaires to large numbers of individuals at once is less expensive and less time consuming and it does not require as much skill to administer the questionnaire. Moreover, distributing the questionnaire does not make the researcher need to participate directly to the respondents'

answers. Therefore, it would be reduced the tendency of bias because the respondent answer does not have any influences form researcher (Sekaran, 2003).

3.4.1 Questionnaire development

The questions for questionnaire constructs adapted from the review of relevant literatures. The questionnaire of this study comprised of three main sections and took approximately 10 to 15 minutes to completion. All of the questionnaire instruments were prepared in English since the targeted respondents were TISSA-UUM Accounting students who are fluent in English language. As suggested by Sekaran (2003), the language of the questionnaire should match the level of understanding of the respondents.

The first section of questionnaire consisted of the demographical background of the respondents. The demographic background consisted of gender, age, race, program and academic qualification. Meanwhile, the second section of this questionnaire referred to the level of environmental knowledge of the respondents. This section required the respondent to specify whether they have basic environmental knowledge, the level of environmental knowledge and the source of environmental information. The third section comprised items based on literature review for the analysis of environmental knowledge sharing behaviour. The questions meant to explore deeper on the environmental knowledge sharing behaviour and derived from a focused literature search.

This section was further divided into six subsections based on the conceptual constructs of this study: attitude towards environmental knowledge sharing, subjective norms towards environmental knowledge sharing, perceived behavioural control, traditional environmental knowledge, intention towards environmental knowledge sharing and actual behaviour towards environmental knowledge sharing. Each of the individual construct was made up of 6

questions which made the total of 36 questions represented 6 variables in this section. The sources of the questions are summarised in Table 1.

Table 1: Source of questionnaire questions

	ITEMS	**SOURCES**
1	Attitude towards environmental knowledge sharing	Chatzoglou (2009) Maichum et.al (2016)
2	Subjective norms towards environmental knowledge sharing	Chatzoglou (2009), Maichum et.al (2016), Tohidinia (2010)
3	Perceived behavioural control	Chatzoglou (2009), Maichum et.al (2016)
4	Environmental knowledge	Maichum et.al (2016), Mostafa (2007)
5	Environmental knowledge sharing intention	Chennamaneni et.al, (2012)Maichum et.al (2016), Tohidinia (2010)
6	Environmental knowledge sharing behaviour	Chatzoglou (2009), Chennamaneni et.al (2012), Tohidinia (2010)

In order to ensure reliability of the response and to reduce bias of the study, one question from attitude variables; question number 5 set as a negative question. It is logical to include some negatively worded questions as well hence the tendency in respondents to mechanically circle the points toward one end of the scale is minimized (Sekaran, 2003). The questions for each instrument are constructed using simple and specific words to ease the respondent answering the questions. The response from respondent is assessed based on a five (5) point Likert scale (1= Strongly Disagree, 5= Strongly Agree).

3.4.2 Response Rate

Questionnaire method was chosen because of its economic benefit and it is also suitable for the short time frame of the study. To collect the data, a sum of 250 questionnaires had been distributed to the targeted respondents; the accounting students from TISSA-UUM. The response rate from respondent is 100 percent. Then, the questionnaires collected were

reviewed and any invalid questionnaires with incorrect responses to the negative question and selection of same option throughout the questionnaire were excluded in this study. Out of 250 questions distributed, 211 valid responses found reliable to conduct the analysis which made up of 84 percent of response rate. This conformed to Sekaran (2003), a high response rate is good for statistical analysis.

3.4.3 Validation of instrument

Before the questionnaire was distributed to the actual respondents, some pre-tests was conducted to verify the validity and reliability of the questionnaire. The pre-test of the measures was conducted by senior lecturers. Upon reviewed, some instruments were modified and included in the questionnaires according to the feedback received. No pilot test done for this study since it is a preliminary study on the environmental knowledge sharing behaviour.

3.5 Data Analysis

Data analysis represents the method used in collecting and analysing data in the study. The data for this study was collected using questionnaire method which was administered in April 2017 and distributed to Accounting students of TISSA-UUM. Simple random sampling was used in determining the samples so that every students have equal chance of being selected as the respondent.

For the purpose of data analysis, this study adopted Partial Least Square Structural Equation Modelling by using SmartPLS 3.0 software. The descriptive information from the data collected is analysed to present understandable demographic information of the respondents participated in this study. Further on, measurement model analysis is performed to assessed

the reliability and validity of the measurement used for this study. Once the establishment of reliability and validity of the constructs are confirmed, further data analysis executed to test the hypotheses developed and to determine the findings of the study.

3.6 Conclusion

This chapter has explained the research methodology adopted in this study. The conceptual framework which is the extension from the original TPB framework is used in determining the factors influenced environmental knowledge sharing behaviour. The hypotheses were also developed based on the relationship represented in the model. In addition, the population and sampling technique exhibited how the sample was selected as the respondent to participate for this survey research. This chapter also concisely explained the data analysis method adopted in this study.

CHAPTER 4

FINDINGS AND ANALYSIS

4.0 Introduction

This chapter provides details and explanation on the research findings. The method adopted for data analysis is Partial Least Square Structural Equation Modelling using SmartPLS 3.0 software. The results are presented in four main sections in this study starting with descriptive analysis, measurement model analysis, lateral collinearity assessment, hypotheses testing and structural model analysis.

4.1 Descriptive analysis

The descriptive analysis of the demographic characteristics in this study has been performed by using descriptive statistics tool in order to interpret the raw data into simple and understandable form of information. The information in Table 2 represent the summary of demographic information of the respondents participated in this study. In addition to the basic demographic information, the information obtained from the second section of the questionnaires related to the level of environmental knowledge also included in the summary.

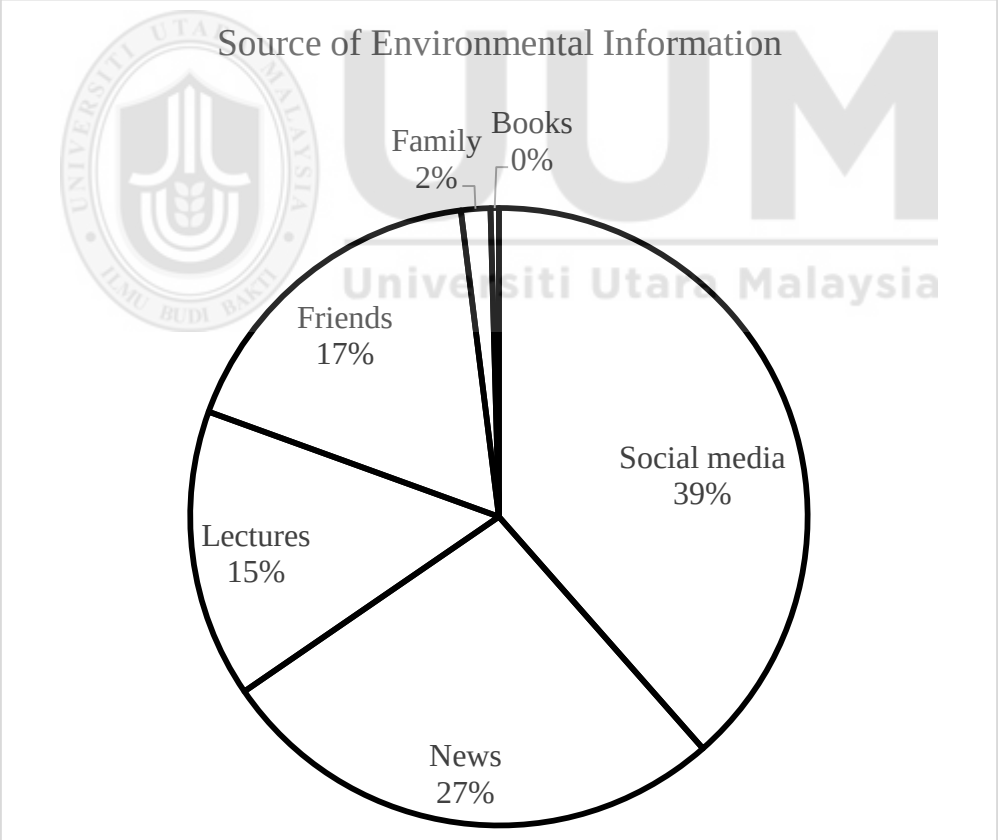
Meanwhile, the last instrument in the level of environmental knowledge section which was the source of environmental information is summarised in Figure 3.

Table 2: Profile of respondents

Demographics	Frequency	Percentage
Gender		
Male	43	20.4%
Female	168	79.6%
Age		
20 years and below	53	25.1%
21 – 23 years	134	63.5%
Above 23 years	24	11.4%
Race		
Malay	129	61.1%
Chinese	52	24.6%
Indian	21	10%
Others	9	4.3%
Program		
BACC	151	71.6%
BAIS	60	28.4%
Year of study		
First year	82	38.9%
Second year	52	24.6%
Third year	65	30.8%
Fourth year	12	5.7%
Highest academic qualification		
STPM	24	11.4%
Matriculation	118	55.9%
Diploma	69	32.7%
Environmental knowledge		
Yes	185	87.7%
No	26	12.3%

Level of knowledge		
Low	88	41.7%
Moderate	111	52.6%
High	12	5.7%
Source of information		
Social media	176	39%
News	123	27%
Lectures	69	15%
Friends	80	17%
Family	7	2%
Books	2	0%

Figure 3: Source of Environmental Information



From the chart in Figure 3, we can see the distribution of the source of information which determined that social media has the highest percentage as the source of environmental information. This result signified the development of technology where any information can be obtained easily. On the other hand, the figures represented family and books as the source of information were very low. It was mainly due to these two answer were not stated as the choices of selection in the questionnaire but had been specified by the respondent from the choice "Others" in the question.

4.2 Measurement model analysis

It is necessary to establish the reliability and validity of the constructs tested in the study to complete the assessment of the structural model. In order to evaluate the reliability and validity of constructs and instruments in PLS-SEM measurement model it is essential to test for indicator reliability and internal consistency reliability. Meanwhile, convergent validity and discriminant validity are used to measure validity of the constructs.

4.2.1 Indicator reliability

Indicator reliability is the measurement for each individual instrument in a constructs. The indicator reliability determine the extent to which the indicators are consistent with what they intend to measure (Urbach and Ahlemann, 2010). The value of measurement for indicator reliability is the factor loading value. The threshold value determining reliability of the indicators varies from several opinions (Byrne, 2010; Hair, Black, Babin and Anderson, 2010; Hulland, 1999). However for indicators with factors loadings of less than 0.40 should be eliminated from the construct. Meanwhile for other indicators exceed the threshold, it is

then depends on the Average Variance Extracted (AVE) value which should be higher than 0.5 to achieve convergent validity (Hair, Sarstedt, Hopkins, and Kuppelwiser, 2014).

Table 3 depicts the assessment of indicator reliability for the constructs in the model. All of the constructs achieve satisfactory factor loadings with all indicators achieve loadings of more than 0.5 (Hair, 2016) except for the fifth indicator of attitude constructs; ATT5_r with low loading value at 0.169 and the fifth indicator for PBC construct; PBC5 at 0.379 which later removed from the model. As for environmental knowledge construct, the Average Variance Extracted (AVE) value is not at the satisfactory level with 0.475 (AVE $\geq$ 0.5). According to Ramayah, Cheah, Chuah, Ting and Memon (2016), if a construct does not meet the acceptable values of AVE, the indicators should be deleted from the indicator with the lowest loading until the satisfactory AVE value is achieved. Therefore, indicators EK5 and EK6 are deleted one by one to achieve the acceptable AVE value.

The review and deletion of non-satisfactory indicators resulted to an ideal Average Variance Extracted (AVE) (Byrne, 2010). The revision performed on the measurement model is shown in Table 4. The factor loading values for all indicators are above 0.4 and resulted to satisfactory value of AVE for all constructs at AVE $\geq$ 0.5 (Byrne, 2010).

4.2.2 Internal consistency reliability

The internal consistency reliability determined from evaluation of composite reliability (CR) of the tested constructs. The internal reliability consistency measures whether the all the indicators of a construct are measuring the same element. The CR for each of the construct in Table 3 reflected good measurement. The CR values ranging from 0.835 to 0.926 therefore all construct achieves CR of more than 0.8 indicating that the measure has internal reliability consistency.

Table 3: Measurement model

Construct	Indicators	Factor Loading	AVE	CR	Cronbach's Alpha
Attitude	ATT1	0.806	0.52	0.853	0.785
	ATT2	0.869			
	ATT3	0.851			
	ATT4	0.643			
	ATT5_r	**0.169**	Deleted due to low loadings		
	ATT6	0.741			
Subjective norms	SN1	0.777	0.6	0.9	0.866
	SN2	0.826			
	SN3	0.822			
	SN4	0.736			
	SN5	0.794			
	SN6	0.684			
PBC	PBC1	0.802	0.545	0.873	0.822
	PBC2	0.835			
	PBC3	0.770			
	PBC4	0.749			
	PBC5	**0.379**	Deleted due to low loadings		
	PBC6	0.793			
Environmental knowledge	EK1	0.721	**0.475**	0.844	0.782
	EK2	0.717			
	EK3	0.679			
	EK4	0.687			
	EK5	**0.659**	Deleted due to low AVE value		
	EK6	**0.67**	Deleted due to low AVE value		
Intention	INT1	0.736	0.675	0.926	0.903
	INT2	0.841			
	INT3	0.777			
	INT4	0.851			
	INT5	0.853			
	INT6	0.865			
Behaviour	BH1	0.65	0.601	0.9	0.866
	BH2	0.77			
	BH3	0.806			
	BH4	0.823			
	BH5	0.777			
	BH6	0.811			

Table 4: Revised measurement model

Construct	Indicators	Factor Loading	AVE	CR	Cronbach's Alpha
Attitude	ATT1	0.808	0.62	0.89	0.843
	ATT2	0.873			
	ATT3	0.85			
	ATT4	0.644			
	ATT6	0.74			
Subjective norms	SN1	0.777	0.6	0.9	0.866
	SN2	0.826			
	SN3	0.822			
	SN4	0.736			
	SN5	0.794			
	SN6	0.684			
PBC	PBC1	0.802	0.545	0.873	0.822
	PBC2	0.835			
	PBC3	0.77			
	PBC4	0.749			
	PBC6	0.793			
Environmental knowledge	EK1	0.798	0.564	0.835	0.731
	EK2	0.841			
	EK3	0.775			
	EK4	0.557			
Intention	INT1	0.736	0.675	0.926	0.903
	INT2	0.84			
	INT3	0.777			
	INT4	0.852			
	INT5	0.853			
	INT6	0.865			
Behaviour	BH1	0.65	0.601	0.9	0.866
	BH2	0.77			
	BH3	0.806			
	BH4	0.823			
	BH5	0.777			
	BH6	0.811			

4.2.3 Convergent validity

The convergent validity of a construct is measured based on the degree to which the indicators reflect the direct construct in comparison to measurement on other constructs (Urbach and Ahlemann, 2010). The item used in determining convergent validity is the average variance extracted (AVE). AVE indicates the extent a latent construct explains the variance of its indicators (Hair et al., 2014). In order for a construct to achieve convergent validity, the AVE must be more than 0.50 (AVE $\geq$ 0.50) (Fornell and Lacker, 1981; Hair et.al., 2014). From the AVE measurement in Table 4, all 6 constructs measured meet the threshold values or minimum cut-off values for AVE, where all AVEs are greater than 0.5 after the process of item deletion (Hair et.al, 2014). The indicators for environmental knowledge which are EK5 and EK6 were deleted due to low AVE value. According to Hair et al. (2014), if the construct does not meet the AVE acceptable values, indicators starting from the lowest loadings should be deleted until satisfactory value of AVE is achieved. However, deletion of indicators should not exceed 20 percent of the indicators in the model. After deletion of two indicators from the construct, the AVE is valued at 0.564 (AVE $\geq$ 0.50) and adequate for the convergent validity. It is concluded that the constructs meet reliability and convergent validity requirement at this stage.

4.2.4 Discriminant validity

Discriminant validity assessment is conducted to justify that the indicators measurement for a construct is differentiated with measurement to other constructs. The assessments examine the correlations between the measures which are potentially overlapping. The discriminant validity of the indicators using SmartPLS is checked based on three criteria called Cross-loading criterion, Fornell and Larcker's (1981) criterion and Hetrotrait-Monotrait ration of correlations (HTMT).

a. Cross-loading criterion

The cross- loadings criterion exhibit the loading values for each of the indicator tested to its own construct and other constructs.

Table 5: Cross-loading criterion

	Attitude	Behaviour	Environmental knowledge	Intention	PBC	Subjective norms
ATT1	**0.808**	0.541	0.316	0.503	0.499	0.547
ATT2	**0.873**	0.525	0.401	0.563	0.477	0.491
ATT3	**0.85**	0.451	0.393	0.507	0.354	0.527
ATT4	**0.644**	0.308	0.316	0.38	0.277	0.313
ATT6	**0.74**	0.388	0.452	0.451	0.313	0.423
BH1	0.432	**0.65**	0.297	0.457	0.382	0.385
BH2	0.514	**0.77**	0.37	0.58	0.469	0.448
BH3	0.439	**0.807**	0.35	0.577	0.56	0.467
BH4	0.45	**0.823**	0.462	0.582	0.542	0.469
BH5	0.441	**0.777**	0.429	0.56	0.542	0.425
BH6	0.385	**0.81**	0.359	0.535	0.539	0.431
EK1	0.433	0.416	**0.798**	0.475	0.35	0.393
EK2	0.371	0.339	**0.841**	0.387	0.223	0.3
EK3	0.336	0.312	**0.775**	0.381	0.222	0.308
EK4	0.261	0.396	**0.557**	0.347	0.358	0.319
INT1	0.441	0.562	0.434	**0.735**	0.473	0.51
INT2	0.549	0.585	0.487	**0.841**	0.531	0.507
INT3	0.459	0.549	0.441	**0.777**	0.507	0.446
INT4	0.498	0.595	0.405	**0.852**	0.485	0.501
INT5	0.503	0.599	0.475	**0.853**	0.531	0.51
INT6	0.578	0.608	0.406	**0.865**	0.528	0.529
PBC1	0.393	0.504	0.256	0.497	**0.805**	0.502
PBC2	0.402	0.531	0.276	0.511	**0.846**	0.483
PBC3	0.376	0.554	0.319	0.46	**0.776**	0.469
PBC4	0.373	0.541	0.359	0.488	**0.749**	0.354
PBC6	0.425	0.475	0.324	0.506	**0.793**	0.427
SN1	0.49	0.447	0.354	0.516	0.433	**0.777**
SN2	0.449	0.436	0.307	0.537	0.434	**0.826**
SN3	0.45	0.413	0.383	0.455	0.394	**0.822**
SN4	0.388	0.416	0.312	0.412	0.443	**0.736**
SN5	0.515	0.448	0.365	0.473	0.491	**0.794**
SN6	0.452	0.475	0.355	0.42	0.428	**0.684**

For measurement of discriminant validity using cross-loading, the loading of indicators on the particular construct should be higher than the loadings on all other constructs. In addition, the difference in values of the loadings across the constructs must be more than 0.1 (Chin, 1998; Snell and Dean, 1992).

As indicated in Table 5, all indicators load high on its own constructs but low on the other constructs with value of more than 0.1. This indicates discriminant validity is achieved as the constructs are distinctly different from each other.

b. Fornell and Larcker's (1981) criterion

For Fornell and Larcker's (1981) discriminant validity assessment, the AVE of latent variable or construct is observed. The AVE of a construct should be higher on its own indicators than the variance of other constructs.

Table 6: Fornell and Larcker's criterion for discriminant validity

	Attitude	Behaviour	Environmental knowledge	Intention	PBC	Subjective norms
Attitude	**0.787**					
Behaviour	0.571	**0.775**				
Environmental knowledge	0.476	0.49	**0.751**			
Intention	0.616	0.71	0.537	**0.822**		
PBC	0.496	0.657	0.387	0.621	**0.794**	
Subjective norms	0.591	0.565	0.445	0.61	0.563	**0.775**
Note: Diagonals represent the square root of the AVE while the off-diagonals represent the correlations						

Table 6 indicates that all individual constructs exhibit sufficient or satisfactory discriminant validity (Fornell and Larcker, 1981), where the square root of AVE is larger than the correlations for all other reflective constructs.

c. Hetrotrait-Monotrait ration of correlations (HTMT)

HTMT refers to the ration of correlations of indicators towards their own construct against the correlations of the indicators towards other constructs (Ramayah et.al., 2016). HTMT estimates the actual correlation between two constructs assuming that the constructs are perfectly measured and reliable with free of error. There are two methods to measure discriminant validity using HTMT. When using the measurement as a criterion, it can be evaluate using either HTMT value greater than $HTMT_{.85}$ value of 0.85 (Kline, 2011) or $HTMT_{.90}$ value of 0.90 (Gold, Malhotra and Segars, 2001) to indicate the discriminant validity.

Table 7: HTMT criterion

	Attitude	Behaviour	Environment knowledge	Intention	PBC	Subjective norms
Attitude						
Behaviour	0.664 CI.85 (0.580,0.735)					
Environment knowledge	0.602 CI.85 (0.482,0.728)	0.616 CI.85 (0.513,0.691)				
Intention	0.702 CI.85 0.613,0.757)	0.803 CI.85 (0.730,0.862)	0.658 CI.85 (0.538,0.745)			
PBC	0.578 CI.85 (0.482,0.661)	0.760 CI.85 (0.682,0.821)	0.490 CI.85 (0.354,0.623)	0.707 CI.85 (0.631,0.773)		
Subjective norms	0.686 CI.85 (0.585,0.747)	0.655 CI.85 (0.569,0.716)	0.56 CI.85 (0.441,0.665)	0.686 CI.85 (0.599,0.751)	0.657 CI.85 (0.575,0.720)	

Next, HTMT measurement also is used in statistical analysis to assess the HTMT inference (Henseler, Ringle and Sarstedt, 2015). The assessment used the confidence interval of HTMT from bootstrapping method. In order to establish discriminant validity, the confidence

interval should not be between the value of 1. For the purpose of this study, HTMT evaluation is performed using $HTMT_{.85}$ (85 percent confidence) as suggested by Kline (2011). It is suggested that $HTMT_{.85}$ method offers the best balance between high detection and low false positive rates (Ramayah et.al., 2016).

As presented in Table 7, all the values carried by each construct tested fulfil the criterion of $HTMT._{85}$ (Kline, 2011). Therefore, this indicated that discriminant validity has been ascertained. Besides, the result of HTMT inference based on the confidence interval value also shows that the confidence interval does not show a value of 1 on any of the constructs (Henseler et.al., 2015), which also confirmed discriminant validity.

From the assessment of measurement model done, it is resolved that reliability and validity is established for the constructs tested in the study. Therefore, the model is reliable and valid to be used for further analysis.

4.3 Lateral collinearity

Lateral collinearity is an assessment where the causal effects of variables from the framework are evaluated. The assessment is important especially in the condition where two dependent variables are tested in a study; which in this case are intention and behaviour variables. According to Kock and Lynn (2012), even though discriminant validity has been established, lateral collinearity might misrepresented the findings of the study by way it can mask the strong causal effect in the model.

Table 8: Lateral Collinerity Assessment

Construct	Variance Inflator Factor (VIF)	
	Intention	Behaviour
Attitude	1.756	
Subjective norms	1.861	
Environmental knowledge	1.386	
Perceived behavioural control	1.580	1.626
Intention		1.626

In order to determine the presence of lateral collinearity issue, collinearity statistics is obtained from PLS and the value of Variance Inflator Factor (VIF) must be lower than 5 (VIF < 5.0) (Hair et al., 2014) to justify the absence of lateral collinearity issue.

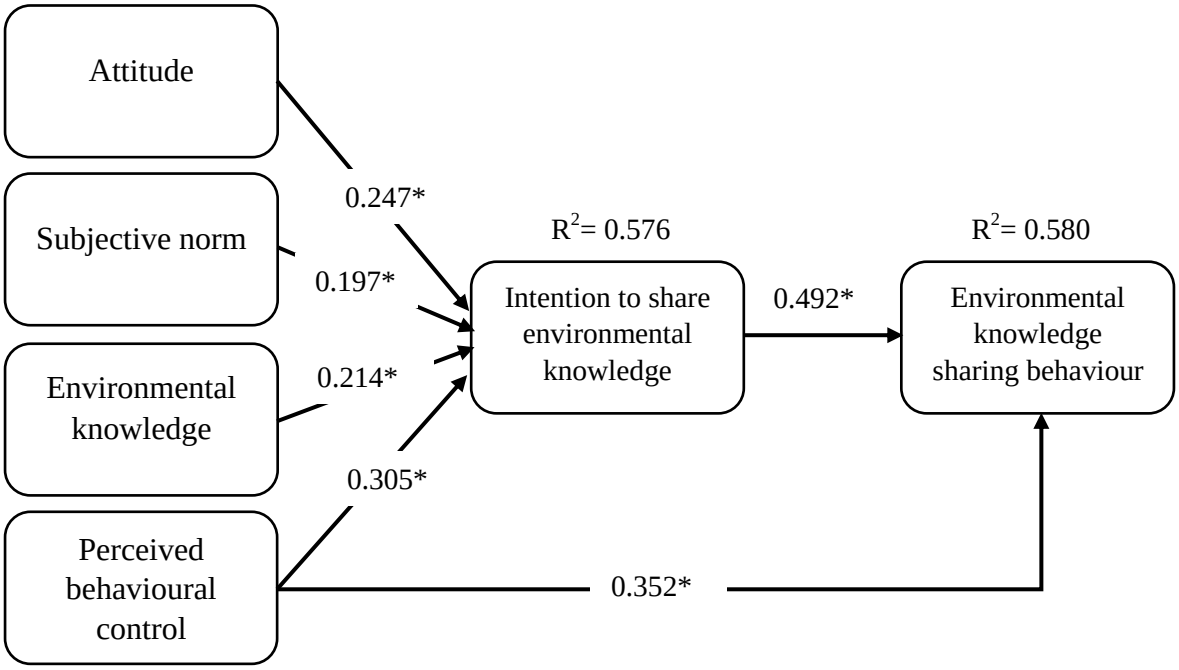
As depicted in Table 8, all the Inner VIF values for the independent variables tested to Intention as dependent variable which are attitude (1.756), subjective norms (1.861), environmental knowledge (1.386) and perceived behavioural control (1.580) are less than 5 which fulfil the lateral collinearity assessment requirement (VIF < 5.0). On the other hand, for the variables for testing behaviour construct, both perceived behavioural control and intention carried the value of VIF at 1.626; VIF < 5.0. Therefore, since all variables tested for lateral multicollinearity are valued less than 5 and indicating lateral collinearity is not a concern in this study (Hair et.al., 2014).

4.4 Hypotheses testing

Following the establishment of acceptable structural model for this study, data analysis is then carried out to test the hypotheses developed. The hypothesised relationships between the variables towards environmental knowledge sharing behaviour in the structural model were tested to determine the relationship between the constructs and whether the hypotheses developed are supported. By using SmartPLS 3.0, a bootstrapping procedure is conducted to show the significance of estimated path coefficients. The results of PLS estimation from the data analysis are shown in Figure 4 and Table 8.

Based on the assessment of the path coefficient, it is found that all variables tested are positive related. From the assessment, it is shown that attitude towards environmental knowledge sharing behaviour (β=0.247, $p<0.01$) has positive and significant relationship with intention to share environmental knowledge, thus H1 is supported. Meanwhile, the subjective norms towards environmental knowledge sharing behaviour (β=0.197, $p<0.01$) has positively significance influence towards Intention to share environmental knowledge, supported H2. The additional variable included in this framework, possession of environmental knowledge (β=0.214, $p<0.01$) is related to intention to share environmental knowledge with positively significance influence therefore explained H3. In addition to that, perceived behavioural control towards environmental knowledge sharing (β=0.305, $p<0.01$) depicted significantly positive influence towards intention to share environmental knowledge and further supporting H4.

Figure 4: Partial least squares (PLS) analysis result



* *Significant at p < 0.01*

Subsequently, for the assessment of variables directly related to environmental knowledge sharing behaviour involved perceived behavioural control towards environmental knowledge sharing and intention to share environmental knowledge. The path coefficient assessment indicated that perceived behavioural control towards environmental knowledge sharing (β=0.352, p<0.01) has positive and significant effect on environmental knowledge sharing behaviour while intention to share environmental knowledge (β=0.492, p<0.01) also gives positively significant influence towards environmental knowledge sharing behaviour. Therefore, both H5 and H6 are supported. Meanwhile, H7 tested the role of intention to share environmental knowledge as the mediator in this study. The assessment of the indirect effect as per Table 9 for the variables; attitude (β=0.121, p<0.01), subjective norms (β=0.097, p<0.01), environmental knowledge (β=0.106, p<0.01) and perceived behavioural control (β=0.150, p<0.01) towards environmental knowledge sharing behaviour through intention as the mediator, indicated that the mediation is established hence supported H7. The results from the assessment and hypotheses testing are summarised in Table 9.

Table 9: Standardised path coefficient

Path/ Hypothesis		Path coefficient (β)	p-value	Hypothesis testing
Attitude → Intention	H1	0.247	0.000	Accept
Subjective norms → Intention	H2	0.198	0.002	Accept
Environmental knowledge → Intention	H3	0.214	0.000	Accept
PBC → Intention	H4	0.305	0.000	Accept
PBC → Behaviour	H5	0.352	0.000	Accept
Intention → Behaviour	H6	0.492	0.000	Accept
Attitude → Intention → Behaviour	H7	0.121	0.000	Accept
Subjective norms → Intention → Behaviour		0.097	0.003	
Environmental knowledge→ Intention → Behaviour		0.106	0.000	
PBC → Intention → Behaviour		0.150	0.000	

Significant at p < 0.01

4.5 Structural model analysis

Structural model analysis provides extensive information from the result of this study. In addition to the assessments of data analysed before, there are some other important assessments can be concluded from the result of the study. The assessments include percentage of variance explained (R^2), confidence interval, effect size to coefficient of determination (f^2), and predictive relevance (Q^2).

4.5.1 Total variance explained (R^2)

Falk and Miller (1992) suggested that the coefficient of determination (R^2) values should be equal or greater than 0.10 in order for the variance explained of a particular endogenous construct to be deemed adequate.

Table 10: Structural model

	Beta	Std. Deviation	t-value	LLCI	ULCI	f^2	R^2	Q^2
Attitude	0.247	0.059	4.180	0.138	0.338	0.082	0.574	0.360
Subjective norms	0.197	0.067	2.958	0.090	0.308	0.049		
Environmental knowledge	0.214	0.058	3.669	0.125	0.312	0.078		
PBC → Intention	0.305	0.065	4.654	0.197	0.411	0.138		
PBC→ Behaviour	0.352	0.066	5.350	0.234	0.454	0.181	0.581	0.324
Intention	0.492	0.065	7.608	0.391	0.591	0.355		
Attitude	0.121	0.034	3.617	0.074	0.183	Indirect effect / mediation		
Subjective norms	0.097	0.035	2.741	0.046	0.162			
Environmental knowledge	0.106	0.031	3.447	0.060	0.164			
PBC	0.150	0.039	3.817	0.090	0.222			

Based on the value of R^2 on the intention variable from Figure 4 and Table 10, it is seemed that the variables tested earlier have explained 57.6 percent of variances towards intention to share environmental knowledge which is substantial according to Cohen (1988) that suggested that R^2 above 0.26 depicted substantial model. In addition, R^2 value on environmental knowledge sharing behaviour indicated that the variables intention and perceived behavioural explained 58 percent of the variances in behaviour and therefore indicated a substantial model (Cohen, 1988).

4.5.2 Confidence interval

In addition to the analysis on the role of intention as a mediation variable, the confidence interval obtained from bootstrapping calculation is analysed. The value of confidence interval biased corrected between the Upper Level Confidence Interval (ULCI) and Lower Lever Confidence Interval (LLCI) for each variable tested must not straddle a zero (0) for the

mediation effect to be established (Ramayah et.al., 2016). Based on the information in Table 10, the 95 percent bootstrap confidence interval (CI) for this indirect effect of attitude (LCCI = 0.074; ULCI=0.183), subjective norms (LCCI = 0.046; ULCI=0.162), environmental knowledge (LCCI = 0.06; ULCI=0.164) and perceived behavioural control (LCCI = 0.09; ULCI=0.222) towards behaviour does not straddle a 0 in between the Upper Level Confidence Interval (ULCI) and Lower Lever Confidence Interval (LLCI). Therefore further support the evidence of indirect effect (Ramayah et.al., 2016).

4.5.3 Effect size (f^2)

The effect size (f^2) is used to determine the size of the effect had by a variable towards another variable. As asserted by Sullivan and Fein (2012), the assessment on p-value can represent the existence of effect towards the variable but not signify the size of the effect. Specifically, it assesses the relative impact of a predictor construct onto another construct. Therefore, it is believed that in reporting and interpreting studies, both the substantive significance (effect size) and statistical significance (p-value) are essential results to be reported. In order to measure the effect size, Cohen (1988) guideline is used where the values of f^2 at 0.02, 0.15 and 0.35 represent small, medium and large effect respectively.

From Table 10, it can be observed that intention (0.355) has a large effect in producing the R^2 for behaviour. The result indicates attitude (0.082), subjective norms (0.049) and environmental knowledge (0.078) have small effect in producing R^2 for intention while PBC (0.138) has close to medium effect producing R^2 for intention. The result also shows that PBC (0.181) has medium effect in producing R^2 for behaviour.

4.5.4 Predictive relevance (Q^2)

Additionally, the constructs or variables in the study can be tested for their predictive relevance. The predictive relevance of model is examined using the blindfolding procedure.

The blindfolding procedure evaluates every data point of the indicators in the reflecting measurement model of the tested construct. If the Q^2 value is larger than 0, the model has predictive relevance for a certain endogenous construct (Hair et.al., 2014; Fornell and Cha, 1994). All the two Q^2 values in this model, for Intention ($Q^2 = 0.360$) and Behaviour ($Q^2 = 0.324$) are more than 0, indicated that the model has sufficient predictive relevance. In addition, Hair et.al. (2014) stated that as a relative measure of predictive relevance, the value of 0.02, 0.15 and 0.35 indicate that an exogenous construct has small, medium or large predictive relevance for a certain endogenous construct, thus, both intention and behaviour have substantial predictive relevance.

4.6 Conclusion

This chapter has presented and discussed on the findings of this study. The measurement model assessment has established the reliability and validity of the measurement for all reliability and validity measures performed. Based on the analysis performed on the data collected, it is determined that all hypotheses tested for this study are supported which means the variables attitude towards environmental knowledge sharing, subjective norms towards environmental knowledge sharing, possession of environmental knowledge, perceived behavioural control towards environmental knowledge sharing and intention to share environmental knowledge are positively significant in influencing environmental knowledge sharing behaviour. In addition, the other structural model assessments also supported the adequacy and relevance of the findings. Further discussions on the findings are presented in next chapter.

Chapter 5

Discussion and Conclusion

5.0 Introduction

The previous chapter has presented the findings of the study. In this chapter, the findings will be conversed further in addition with the comparison and discussion to the previous findings related to this study. The summary and comparison will provide clearer picture and stronger justification for the relevance and reliability of the findings. In addition, the limitation of this study will be addressed as well as the suggestion for the future research.

5.1 Summary of the study

In addressing the importance of knowledge sharing behaviour especially in the context of environmental knowledge, this research is conducted with the aim to determine the factors influencing environmental knowledge sharing behaviour. Theory of Planned Behaviour (TPB) by Ajzen (1991) has been adopted and extended with additional environmental knowledge construct for this study. The sample selected for this study is the Accounting students of TISSA-UUM from two different programs which are Bachelor in Accounting (Hons) (BACC) and Bachelor in Accounting (IS) (Hons) (BAIS).

This quantitative study was performed by using questionnaires distributed to the students as the sample selected by simple random sampling. Pre-test was been done prior to distribution of questionnaires to the respondent to determine the suitability of the construct for the respondents as well as for the purpose of this study. The response rate from the respondents

was found adequate to proceed with the analysis. The data collected then analysed by Partial Least Square Structural Equation Modelling (PLS-SEM) using SmartPLS 3.0 software.

The data analysis on the TPB constructs showed that all variables measure in this study has significant effect towards environmental knowledge sharing behaviour. This result is consistent with other findings from past studies (Chennamaneni, 2006; Ramayah et al., 2013; Tohidinia and Mosakhani, 2010). The findings explained that all variables tested have influence on the intention to share environmental knowledge as well as knowledge sharing behaviour as suggested by previous researches. In addition, the variables towards intention construct explained 57.6 percent variances influencing intention towards knowledge sharing while environmental knowledge sharing behaviour construct recorded 58 percent variance explained in this study which is higher than the variance for intention construct. These results may be due to the role of intention as a mediating variable towards behaviour. This can be interpreted as the influences from attitude, subjective norms, environmental knowledge and perceived behavioural control of a person affect an individual intention to perform environmental knowledge sharing behaviour.

In addition, such outcome from study using Theory of Planned Behaviour can be expected since the theory has been used extensively in analysing human intention and behaviour towards certain situation. Therefore, the original constructs of the theory are predicted to have the ability to reflect the effects on the variables tested. This prediction is due to multiple studies found from the literature review indicates the relationship between TPB constructs where some of the studies obtained different results concerning unsupported constructs depending on the condition or environment of the study (Abdur-Rafiu and Opesade, 2015; Jolaee et al., 2014). Therefore it can be expected that the outcome may vary especially when the study is done in irregular condition.

5.2 Discussion on research hypotheses

The discussion on research hypotheses will focus on the findings of individual hypothesis. The findings are evaluated and compared with the findings from related study to have the rationale explained as well as to provide credibility and strong evidence to the study.

5.2.1 Hypothesis One

The study aimed to examine the relationship between attitude towards environmental knowledge sharing to intention to share environmental knowledge. Therefore, the hypothesis to test the relationship is developed.

H1: *The attitude towards environmental knowledge sharing influence the intention to share environmental knowledge.*

The findings showed that the attitude towards environmental knowledge sharing influence the intention to share environmental knowledge. The relationship of attitude towards intention to share knowledge is proven by many studies (Ajzen, 1991; Bock and Kim, 2001; Chennamaneni et al., 2012; (Ajzen, 1991; Bock and Kim, 2001; Chennamaneni et al., 2012; Jolaee et al., 2014; Ramayah et al., 2013; Tohidinia and Mosakhani, 2010; Wu and Zhu, 2012). An individual's attitude determined the favourable or interest on the issue concern. It is the impression they have and overall positive or negative opinion on the issue. Generally, the better the perception a person has towards certain behaviour; the better the intention to execute the behaviour.

This study found positive relationship between attitude towards environmental knowledge sharing and environmental knowledge sharing behaviour. This reflects the favourable interest or positive evaluation on environmental knowledge sharing which subsequently influence their behaviour (Armitage and Conner, 2001). Besides, perceived enjoyment and pressure

towards certain behaviour also influence one's attitude on the behaviour. Students representing the respondents in this study could have enjoyable environmental related knowledge or experience which can influence their attitude towards environmental knowledge sharing. Bock et al. (2005) believed that an individual's attitude toward knowledge sharing is driven primarily by predicted mutual relationship on knowledge sharing and subjective norms towards the behaviour.

Moreover, most of the studies reviewed in relation with TPB towards pro-environmental behaviour derived significant relationship between attitude and behaviour (Chen, 2016; Chen and Tung, 2014; Leeuw, Valois, Ajzen, and Schmidt, 2015; Yadav and Pathak, 2016). By this, attitude can be concluded as one of the primary variables in determining pro-environmental behaviour as well as environmental knowledge sharing behaviour. It is also verified from this study that the students favourable expectation towards knowledge sharing which reflected the attitude influence their intention to share knowledge.

5.2.2 Hypothesis Two

People's intention towards environmental knowledge sharing behaviour can be influenced by the perception and social pressure raised from important people in the surrounding. Therefore this study aimed to determine the influence of subjective norms towards environmental knowledge sharing on the intention to share environmental knowledge. By this, a hypothesis is formulated to test this connection.

H2: *The subjective norms towards environmental knowledge sharing influence the intention to share environmental knowledge.*

People's intention in performing certain behaviour can be influenced by the environment (Chennamaneni, 2006). The expectations and believes from people at their surrounding can provide guidance or encouragement towards the performance of certain behaviour. The

findings from this study indicated positive and significant relationship between subjective norms towards environmental knowledge sharing and intention to share environmental knowledge. Considering the educational environment in this study, the students' intention to share knowledge can be influenced by important people at their surrounding including friends, lecturers and also families. These influences promote the subjective norms that influence their intention in relation to knowledge sharing.

Besides, prior studies on knowledge sharing brought mixed result on the influence of subjective norms towards the intention to share knowledge. Individual's intention towards knowledge sharing usually related to subjective norms since the knowledge sharing behaviour is commonly involves the interaction between two or more people in an environment (Ajzen, 1991; Chennamaneni et al., 2012; Wu and Zhu, 2012; Yang and Chen, 2007; Zhang and Jiang, 2015). Besides, the influence and encouragement might also affect their motivation to share environmental knowledge (Rahman, Mat Daud, and Hassan, 2017). Even though subjective norms seemed important in influencing intention towards knowledge sharing, the result might differ in different environment. Isika et al. (2013) and Jolaee et al. (2014) found negative relationship between subjective norms and knowledge sharing behaviour in academic background. They believed that the result relied on the independent character of people who are not easily influenced by other factors from their surroundings. Besides, missing of motivational influences from important people around might also weakened the relationship between subjective norms and intention to share knowledge.

From the review of literatures, most studies found subjective norms as an important influence towards knowledge sharing behaviour. Furthermore, from the perspective of this study, the students' intention to perform environmental knowledge sharing behaviour is influenced by the subjective norms that could raise from social pressure that required them to perform better.

5.2.3 Hypothesis Three

In knowledge management practice, knowledge sharing is related to the process of knowledge exchange between two or more people (Asrar-ul-Haq and Anwar, 2016). Therefore, it is believed that the possession of environmental knowledge might influence the intention to share knowledge. Following this perception, hypothesis is formulated to test this condition.

H3: *The possession of environmental knowledge influence the intention to share environmental knowledge.*

In order for people to share their knowledge, they have to firstly acquire the knowledge. Then, the availability of knowledge will influence their intention to share the knowledge. The finding from this study showed positive and significant relationship between possessions of environmental knowledge with environmental knowledge sharing behaviour. This result agreed to other previous study investigating connection between environmental knowledge with pro-environmental behaviour (Aman et al., 2012; Fraj-Andrés and Martínez-Salinas, 2007; Frick, Kaiser, and Wilson, 2004; Mifsud, 2011; Suki, 2013; Vicente-Molina et al., 2013; Zsoka, 2013). People who have environmental knowledge tend to act and practice in pro-environmental manner since they are more sensitive and concern with environmental events happening around them.

In addition, people usually have the opinion that environmental knowledge is valuable and important (Hudson, 2001). These thoughts about the knowledge might be the influence towards the intention to share knowledge. Although some studies performed in evaluating general concern and knowledge on environmental issues found disappointing results, the efforts in promoting environmental and sustainable awareness are developing to deliver the importance of sustainable conscience in today's world (United Nations, 2016).

In order to deliver the important environmental information, environmental knowledge sharing practise should be elevated. The advancement of environmental education might provide the base needed to realise this goal (Aminrad et al., 2012; Mahat and Idrus, 2016; Uzun and Keles, 2012). From the context of this study, besides foundation environmental knowledge, accounting students should know the importance to acquire environmental knowledge related to organisational sustainability for them to practise the knowledge in accounting career (Gray and Collison, 2002; Lodhia, 2003; Mathews, 2001). The inclusion of Environmental Management Accounting (EMA) in accounting education might have provide the insight of the importance of environmental knowledge in accounting education among the students (Gray and Collison, 2002) resulting the positive result from this study.

The possession of environmental knowledge does seemed to have great influence on the intentions to share environmental knowledge. Therefore, it is theoretically believed that availability of environmental knowledge can promote sustainability behaviour related to environmental knowledge sharing behaviour.

5.2.4 Hypothesis Four

Perceived behavioural control (PBC) towards a particular behaviour can influence the intention to perform the behaviour. PBC which defined as the perceived ease and difficulty as well as personal sense of control in performing certain behaviour (Ajzen, 1991) can improve the intention if people feel favourable and have the ability to do it. A hypothesis was developed in order to examine this relationship in this study.

H4: *Perceived behavioural control towards environmental knowledge sharing influence the intention to share environmental knowledge.*

Perceived of ease and ability in performing environmental knowledge sharing might influence individuals' intention to share environmental knowledge. Finding from this study

showed that perceived behavioural control towards environmental knowledge sharing has positive and significant influence to intention to share environmental knowledge. The findings on relationship between PBC and knowledge sharing conform to the findings from prior studies investigating knowledge sharing behaviour (Abdur-Rafiu and Opesade, 2015; Isika et al., 2013; Ramayah et al., 2013).

PBC construct adequately explained the intention towards performing certain behaviour since it is mainly based on the perception and interest of the individual and not related to other people perception or influence. Individuals can share their knowledge according to their own time, resource and capability (Chennamaneni, 2006; Jolaee et al., 2014). Besides, the environment factors might provide particular influence on the PBC and lead towards intention to share environmental knowledge. Relating from the condition of this study, the learning environment where the students be in the group of knowledge sharing practise, might be a stance in promoting environmental knowledge sharing among the students.

On the other hand, the increasing importance of environmental awareness and behaviour can influence people to share knowledge due to the perceived importance of the situation. Since the environmental information is easily accessible and understands, it promotes perceived ease in sharing and delivering the knowledge. Consequently influence the intention to share environmental knowledge among the students.

5.2.5 Hypothesis Five

Perceived behavioural control (PBC) can influence intention to perform behaviour. However, in the same time it can also directly influence the behaviour. In a sense to determine the influence that PBC towards environmental knowledge sharing had over environmental knowledge sharing behaviour, a hypothesis has been developed in this study to examine this condition.

H5: *Perceived behavioural control towards environmental knowledge sharing influence the environmental knowledge sharing behaviour.*

PBC construct has been theoretically emphasised to have direct influence towards the behaviour (Ajzen, 1991). Moreover, TPB is developed as the extension of Theory of Reasoned Action to include PBC component so that it can theoretically explain the direct influence individuals might have towards their own behaviour without external influence (Ajzen, 1991).

The result from this study disclosed that perceived behavioural control towards environmental knowledge sharing influence environmental knowledge sharing behaviour. This result is in compliance with the result from prior studies proving that PBC can directly influence knowledge sharing behaviour (Abdur-Rafiu and Opesade, 2015; Bock and Kim, 2001; Chennamaneni, 2006; Ramayah et al., 2013; Tohidinia and Mosakhani, 2010). As mentioned earlier on how PBC towards environmental knowledge sharing, can influence the environmental knowledge sharing behaviour, the same situation also can directly influence individuals to perform environmental knowledge sharing.

PBC on environmental knowledge sharing can be the influence towards environmental knowledge sharing behaviour due to its stand-alone character and attribute which did not require external influence to control the behaviour. Evaluating the condition of current study, with availability of resources, capital and ability, students can directly share their environmental knowledge with others. In addition, students usually have ample opportunity to share their knowledge if they intend to which might influence the result of this study since some studies carried out in different environment of knowledge sharing acceptance reflected different result of PBC towards knowledge sharing behaviour (Kuo and Young, 2008).

Therefore, it is believed that perceived behavioural control on environmental knowledge can influence environmental knowledge sharing behaviour given the favourable condition and environment for the environmental knowledge sharing to occur. Besides, the behavioural characteristics on the perception also important in determining PBC influence. This situation is due to the attribute of PBC where it relates with perceived ease or difficulty towards behavioural action.

5.2.6 Hypothesis Six

Behavioural intention is the final variable in TPB which directly influence behaviour. Based on the theoretical framework by Ajzen (1991), intention construct has direct influence towards behaviour. Therefore, with the purpose to examine whether intention to share environmental knowledge influence environmental knowledge sharing behaviour, a hypothesis is developed to test the statement.

H6: *Intention to share environmental knowledge influence the environmental knowledge sharing behaviour.*

It reflected to the intention or also known as behavioural intention which is a component of motivational factor which showed willingness of an individual to perform the behaviour in review (Ajzen, 1991). Intention plays dominant role influencing behaviour because once the intention is established, the individual just have to either to perform or not the particular behaviour in concern. From the study conducted, the result indicated that intention to share environmental knowledge positively influenced environmental knowledge sharing behaviour.

The positive relationship between intention and behaviour in knowledge sharing is supported by prior studies signified the significance of intention construct in behaviour determination (Ajzen, 1991; Bock et.al., 2005; Bock and Kim, 2001; Chennamaneni et.al., 2012; Isika et.al., 2013; Jolaee et.al., 2014; Rahman et.al., 2017; Ramayah et.al., 2013; Tohidinia and

Mosakhani, 2010). Based on the literature reviewed in relation to performance of this study no study had been found to have negative relationship between intention and behaviour.

In addition, the level of intention in performing the behaviour can influence the actual performance. As mentioned by Ajzen (1991) the theory advises that the stronger the intention of an individual to engage in behaviour the more likely should be its performance. This indicated that weaker intention might result in no performance.

Reflecting to current study, with the students' intention to share environmental knowledge, they can execute the behaviour on their own capacity. With the presence of intention to share knowledge, it indicated their readiness to perform the behaviour in concern.

5.2.7 Hypothesis Seven

Aside from its direct relation in determining behaviour, intention also acts as a mediator between the other constructs in TPB to explain the behaviour. In order to test the mediation effect of intention to share environmental knowledge towards the relationship of attitude, subjective norms, environmental knowledge and perceived behavioural control with environmental knowledge sharing behaviour, a hypothesis is established.

H7: *Intention to share environmental knowledge mediates the influence of attitude, subjective norms, environmental knowledge and perceived behavioural control towards environmental knowledge sharing behaviour.*

As per discussion on earlier findings of this study, the variables tested have positively influence intention to share environmental knowledge. Therefore, intention construct might have the capacity to mediate the effects of these variables towards environmental knowledge sharing behaviour. The findings showed that the mediation effect of intention towards environmental knowledge sharing behaviour is established. This finding on the mediation effect of intention is in conformity with past researches in knowledge sharing studies (Ajzen,

1991; Bamberg and Moser, 2006; Mafabi et.al, 2017; Rahman et.al, 2016; Skaik and Othman, 2014).

Psychologically, without intention, people will not perform behavioural action. Therefore, intention is included as an important construct in determining behaviour in Theory of Planned Behaviour (TPB) (Ajzen, 1991). Bock et al. (2005) is of the opinion that the result obtained from testing of TPB in determining behaviour is conclusive and expected as the theory has been widely used in behavioural study. From the studies, it is determined that intention or behavioural intention is a significant element in determining the factors contributing to knowledge sharing behaviour.

Speaking from the context of education in this study, the students who contained the attitude, subjective norms, environmental knowledge and perceived behavioural control might have established the intention to share their knowledge. The availability of opportunity can lead them to the performance of environmental knowledge sharing. Therefore, the mediation role of intention is useful in encouraging students towards active participation in environmental knowledge sharing.

5.3 Limitation and recommendation

This study has been performed in the capacity as a preliminary study for environmental knowledge sharing behaviour concentrating in educational institution context. The scope of this study is limited to the Accounting students in TISSA-UUM, therefore the findings obtained in execution of this study cannot be generally interpreted in wider context since the outcome could vary in a more extensive study. In addition, since this study is done within a limited time frame, limited variables has been used in determining the environmental

knowledge sharing behaviour. Since the study on environmental knowledge sharing behaviour is still narrow, finding supporting literatures in performing this study has been quite challenging.

In extending this study in wider context, it is expected that future study can be performed in broader perspective of educational institution. An extensive study can help in providing general overview of environmental knowledge sharing behaviour especially from the context of educational institution in Malaysia. Additional variables in performance of future study can provide descriptions for new determinants in environmental knowledge sharing behaviour. Likewise, additional variables in the framework of study also can endorse to wider knowledge contribution in the study. Besides that, incorporation of additional theory in the study can promote extensive review on environmental knowledge sharing behaviour in wider perspective.

5.4 Conclusion

Environmental knowledge and sustainability are the growing concern in our country nowadays. Numerous efforts had been taken to promote and enhance environmental knowledge among Malaysian especially in educational context. Aside from formal learning, environmental knowledge sharing can be a useful mean in spreading the valuable environmental knowledge.

This study has accomplished the objectives in determining the influences of the variables which are attitude towards environmental knowledge sharing, subjective norms towards environmental knowledge sharing, possession of environmental knowledge, perceived behavioural control towards environmental knowledge sharing and intention to share environmental knowledge towards the main concern of environmental knowledge sharing behaviour. The findings reflected significant effect of the variables towards development of environmental knowledge sharing behaviour among Accounting students of TISSA-UU and signifies the hope for environmental knowledge to spread among the students by the mean of knowledge sharing. Besides improving environmental knowledge for the purpose of pro-environmental conducts in daily life, the knowledge also might be useful in future fulfilling the increasing role of an accountant in promoting organisational sustainability.

Hopefully the findings from this study able to contribute to the knowledge on environmental knowledge sharing behaviour. This study also should be able to develop and increase environmental awareness by promoting sharing of knowledge among Malaysians representing the society in a developing country so that the current state of environment can be sustained for a longer future.

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Appendix

Questionnaire

Dear respondent,

ENVIRONMENTAL KNOWLEDGE SHARING BEHAVIOUR: THE THEORY OF PLANNED BEHAVIOR

Congratulations, you have been chosen to participate in this study about environmental knowledge sharing behaviour. The purpose of this survey is to gather information regarding the determinants of environmental knowledge sharing behaviour among UUM students. In order to accomplish this goal, your honest participation is very much needed. There is no right or wrong answer.

Please be noted that all the responses and views are going to be very important to the objective of this research. Therefore, information provided for this study will be treated as private and confidential and will be used for research purposes only. Thank you for your time, cooperation and attention. If you have any other questions or concerns, please feel free to contact me at 019-4543531.

Your cooperation is greatly appreciated.

Siti Norfatin Afiqah bt Ismail

MSc (International Accounting) Student

Tunku Puteri Intan Safinaz School of Accountancy

SECTION 1 : DEMOGRAPHIC CHARACTERISTICS

Please TICK (✓) at the appropriate responses for question 1- 6 below:

1. Gender

   ☐ Male ☐ Female

2. Age (Please state)

   _____ years old

3. Race

   ☐ Malay ☐ Chinese

   ☐ Indian ☐ Others : Please specify _____

4. Program

   ☐ Bachelor of Accounting (BACC)

   ☐ Bachelor of Accounting (IS) (BAIS)

5. Year of study

   ☐ 1st year ☐ 2nd year

   ☐ 3rd year ☐ 4th year

6. Highest academic qualification

   ☐ STPM

   ☐ Matriculation/Foundation

   ☐ Diploma

   ☐ Others : Please specify _____

SECTION 2 : LEVEL OF ENVIRONMENTAL KNOWLEDGE

Environmental knowledge is the amount of information individuals have concerning environmental issues and their ability to understand and evaluate its positive and negative impact on society and the environment (Chekima, 2016).

Please TICK (✓) at the appropriate responses for question 1- 3 below:

1. Do you have basic environmental knowledge?
   - ☐ Yes
   - ☐ No
2. What is the level of your environmental knowledge?
   - ☐ Low - Environmental awareness and environmental friendly practice in daily life
   - ☐ Moderate - Active participation and involvement in any environmental related activities
   - ☐ High - Significant knowledge and awareness regarding local and global environmental issues
3. How do you obtain environmental knowledge information?
   - ☐ Social media
   - ☐ News
   - ☐ Lectures
   - ☐ Friends
   - ☐ Others : Please specify _____

SECTION 3 : ENVIRONMENTAL KNOWLEDGE SHARING BEHAVIOUR

Please CIRCLE only ONE answer which is appropriate for each statement below:

1	2	3	4	5
Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**

Attitude towards environmental knowledge sharing						
1	I think that sharing environmental knowledge is an enjoyable experience.	1	2	3	4	5
2	I think that sharing environmental knowledge is a good idea.	1	2	3	4	5
3	I think that sharing environmental knowledge is valuable.	1	2	3	4	5
4	I think that sharing environmental knowledge is a wise move.	1	2	3	4	5
5	I think that sharing environmental knowledge is very harmful.	1	2	3	4	5
6	I think that sharing environmental knowledge is beneficial.	1	2	3	4	5

Subjective norms towards environmental knowledge sharing						
1	My close friends think that I should share environmental knowledge with others rather than keeping it to myself.	1	2	3	4	5
2	People who are very important to me (e.g. lecturers, friends, family, etc.) expect that I share environmental knowledge rather than keeping it to myself.	1	2	3	4	5
3	People who influence my behaviour (e.g. lecturers, friends, family, etc.) think that I should share my environmental knowledge.	1	2	3	4	5
4	People whose opinion I value (e.g. lecturers, friends, family, etc.) would approve my environmental knowledge sharing.	1	2	3	4	5
5	It is expected of me (e.g. lecturers, friends, family, etc.) to share my environmental knowledge.1	1	2	3	4	5
6	People who are very important to me (e.g. lecturers, friends, family, etc.) share their environmental knowledge with others.	1	2	3	4	5

Perceived behavioural control						
1	I am confident that I can share environmental knowledge rather than keeping it to myself.	1	2	3	4	5
2	I see myself as capable of sharing environmental knowledge.	1	2	3	4	5
3	I have resource, time and willingness to share environmental knowledge.	1	2	3	4	5
4	There are likely to be plenty of opportunities for me to share environmental knowledge.	1	2	3	4	5
5	It is mostly up to me whether or not I share environmental knowledge with others.	1	2	3	4	5
6	I am able to share my environmental knowledge easily.	1	2	3	4	5

Traditional environmental knowledge						
1	I prefer to check the information before I share the environmental knowledge to other people.	1	2	3	4	5
2	I need to learn more to get the deeper insight of the environmental knowledge before share the knowledge.	1	2	3	4	5
3	I would prefer to gain some skill on environmental knowledge before sharing it.	1	2	3	4	5
4	I understand most of the environmental events or conditions.	1	2	3	4	5
5	I know more about environmental matter than the average person.	1	2	3	4	5
6	I am very knowledgeable about environmental issues.	1	2	3	4	5

Intention towards environmental knowledge sharing						
1	I intend to share environmental knowledge because of its positive environmental contribution.	1	2	3	4	5
2	I plan to share environmental knowledge among friends.	1	2	3	4	5
3	I will consider to share environmental knowledge with my friends.	1	2	3	4	5
4	If given opportunity, I would share my environmental knowledge with my friends.	1	2	3	4	5
5	I intend to share my environmental knowledge in near future.	1	2	3	4	5
6	I am likely to share my environmental knowledge with my colleagues in future.	1	2	3	4	5

Behaviour towards environmental knowledge sharing						
1	I shared environmental knowledge from reports or official documents with my friends.	1	2	3	4	5
2	I shared factual environmental knowledge with my friends.	1	2	3	4	5
3	I shared my environmental knowledge from education or training with my friends.	1	2	3	4	5
4	When I learned something new about environmental knowledge, I shared with my friends about it.	1	2	3	4	5
5	I think it is important that my friends know what environmental knowledge that I know.	1	2	3	4	5
6	I shared environmental knowledge from my experiences with my friends.	1	2	3	4	5

Thank you very much for your time and cooperation.