THE INFLUENCE OF PERSONALITY TRAIT DIMENSIONS ON INDIVIDUAL KNOWLEDGE SHARING BEHAVIOUR

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To my beloved Mother and Father,

Thanks for your endless Love, Prayers, Motivation and Support

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ABSTRACT

Knowledge sharing which is often described as the key process of knowledge management is a process where individuals exchange knowledge (tacit or explicit) and together create a new knowledge. However, the personality characteristics of individuals could influence the process of knowledge sharing. Therefore, this study aims to examine and enhance the understanding of the influence of personality traits dimensions (namely agreeableness, openness, neuroticism, extraversion and conscientiousness) on knowledge sharing behavior. The data for this study would be gathered via the questionnaire from academic staff member of the three faculties (Electrical Engineering, Chemical Engineering and faculty of Science) with the highest research grant at Universiti Teknologi Malaysia (UTM). The data gathered would be empirically tested using the multiple regressions via the SPSS software. The result of this study indicates that personality traits dimension is important individual characteristics that influence knowledge sharing. Openness to experience, extroversion and conscientiousness has a positive significant influence on individuals' behaviour to share knowledge. Also, openness to experience is the most influencing factor on the level of knowledge sharing. Based on findings, several implications and recommendation were discussed.

ABSTRAK

Mempunyai pengetahuan yang mencukupi mengenai teknologi dan juga penerimaan dikalangan para pelajar seolah- olah sangat penting pada masa ini. Khususnya pengetahuan mereka mengenai sistem perbankan Internet dan tahap penerimaan telah diberi perhatian di kalangan para cendekiawan dalam kajian pengurusan. Sepanjang penyelidikan semasa, penyelidik cuba untuk mengkaji faktor-faktor penentu potensi pengguna muda penerimaan sistem perbankan Internet, kesan CSE terhadap PE , PU , PC dan kepercayaan dalam model penerimaan teknologi terhadap Niat Kelakuan, kesan pengguna yang berpotensi ' CSE terhadap niat pelajar untuk menggunakan perbankan internet melalui PU, PE , PC dan juga unsur-unsur amanah dalam TAM , dan akhir sekali menyiasat perbezaan diantara perbankan internet BI dan IBS di antara pelajar ICT dan pelajar bukan ICT . Penyelidik menggunakan beberapa prosedur statistik dengan menggunakan perisian SPSS untuk menganalisis data yang diperolehi , beberapa faktor telah dikenal pasti sebagai faktor penting dalam perbankan internet. Tambahan pula CSE mempunyai hubungan yang positif dengan PU, PC dan BI. Sebaliknya , PU mempunyai hubungan positif dengan BI dan PCT mempunyai hubungan positif dengan BI. Keputusan regresi menunjukkan bahawa CSE mempunyai hubungan positif dengan PU, PE dan PCT . Selain itu, BI mempunyai hubungan positif dengan PE , PU dan PCT . Akhir sekali, sample ujian-t tidak bergantung menunjukkan terdapat perbezaan yang signifikan di antara IT dan bukan IT pelajar mengenai idea-idea mereka tentang perbankan internet dan pelajar IT mempunyai sikap yang lebih menggalakkan. Pada akhir kajian ini beberapa cadangan untuk pelanggan bank dan juga pengurus bank telah dicadangkan.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This is the first chapter of study that intend to examine the influence of personality trait dimensions on individual knowledge sharing behaviour. In this chapter, the research background, the problem statement, purpose of the study as well as research objectives and research questions were presented. The significance of the study, scope and limitations of the study were also been discussed. Finally, operational and conceptual definitions will be highlighted.

1.2 Research Background

In today's business world, many organizations have come to the realization that knowledge is one of the primary sources of competitive advantage and that it plays a great role in the long term sustainability and success of any organization (Davenport and Prusak, 1998). Managing organisational knowledge has being identified by researchers (Davenport and Prusak, 1998; Wang and Noe, 2010; Bollinger and Smith, 2001) as a strategic means for organizations to improve their performance, become more innovative, gain new markets and sustain competitive

advantage. Knowledge management makes it possible for every member of an organization to utilise captured knowledge in conducting their job functions.

Knowledge sharing is considered the most crucial process of knowledge management (Gupta and Govindarajan, 2000) and according to Jarvenpaa and Staples (2001) individuals are the principal agent of knowledge sharing and the main source of knowledge in the organization. Individuals' in the organization play a critical role in knowledge sharing process through collectively sharing experiences and insights to create new knowledge. In knowledge sharing process, individuals exchange their knowledge through various platforms in order to generate new knowledge. Knowledge sharing encourages knowledge exchange and creativity in organization in order to enhance firm performance, intellectual capital, and competitive advantages (Liebowitz, 2001; Bollinger and Smith, 2001).

However, organizations are confined with a number of difficulties and barriers in knowledge sharing (Chennamanani, 2006; Riege, 2005). Some of these barriers include perceived benefits of individuals who may expect some benefits for sharing their knowledge, time consumption, intensive efforts and workload, distrust and so on (Bock *et al*. 2005; Gibbert and Krause 2002). Knowledge sharing can be internalized in organizations through not only direct business strategies, but also changing the attitude of organizational members towards knowledge sharing (Lin, 2007). Some researchers (Davenport and Prusak, 1998; Haas and Hansen, 2001) have suggested that individuals could reluctantly share knowledge with one another which could result in a decline of the firm's performance as well as the intellectual capacity of the organizational members.

Getting employees to share their experience and knowledge is one of challenging issue in many organizations. Although it could be argued that organizations should hire talented individuals and make use of their expertise in order to gain competitive advantage. Yet, hiring talented people is no longer enough. People with the right personality traits that support knowledge sharing and collective

collaboration is essential. Studies conducted by Matzler *et al* (2008) suggested that the five big personality traits, such as agreeableness, conscientiousness and openness to experience are the examples of individual factors that could influence knowledge sharing. Other researchers, Yosof and Ismail (2010) believe that personality seems to be the most important and correlated with knowledge sharing quality among other factors. In addition, Cabrera *et al.,* 2006; Amayah, 2011) claimed that personality traits can explain why some individuals are willing to share while others are not.

Although knowledge sharing among employees in organizations and its potential to enhance organizational performance and competitive advantage has well been studied in the literature, not much previous research on knowledge sharing has been conducted within universities (Fullwood *et al.,* 2013). Universities are knowledge intensive establishments that play an important role in knowledge creation through research, and in knowledge dissemination through publications. Therefore, studying knowledge sharing among universities academics who engage in knowledge work is necessary. This study would focus on investigating knowledge sharing and personality traits dimensions in one public university in Malaysia named the Universiti Teknologi Malaysia (popularly known as UTM).

1.3 Problem Statement

Knowledge is considered as a key resource for organizations to attain sustainable competitive advantage thus the better knowledge is shared and utilised in an organization, the more the capacity of that organization to enhance its competitive power (Yang and Wu, 2006). The process of knowledge acquisition, creation, storage, refinement, sharing, transfer, and utilization is known as knowledge management. In organizations, knowledge management is employed to develop strategies and systems to support and encourages individuals to participate in utilizing knowledge resources. The study of knowledge sharing is an important area of knowledge management research. In the knowledge sharing literature, individual

factors, organizational factors and technological factors influencing knowledge sharing have well been examined.

In the aspect of individual factors influencing knowledge sharing, individual factors such as trust, self-efficacy, altruism, reciprocity and so on have been studied extensively. However, factors such as personality is an area needing further research as suggested by Wang and Noe (2010). Many benefits of knowledge sharing have encouraged organizations to invest significant amounts of money and time into knowledge management projects. Although resources allocated to knowledge management projects, many still fail. One the reasons of these results might be the lack of paying attention to some factors that influence individuals' motivation to share knowledge such as personality traits (Wang *et al.*, 2014).

To ascertain the importance of studying the personality factor of knowledge sharing, a review of related literature was carried out (for example Hsu *et al*., 2007; Matzler *et al* 2008; Fang and Liu, 2002). The findings of the literature review suggest that individual's personality and their personality trait dimensions could influence their knowledge sharing behaviour. Based on the review, it was found that individuals' characteristics and differences would affect their knowledge sharing behaviour. Within the individual characteristics, personality is an important psychological factor that guides individuals' behaviour (Halder *et al.* 1970). Thus, personality is an important factor that influences individuals' behaviour to share knowledge.

Existing debate among studies conducted on the influence of personality traits on knowledge sharing shows some interesting results. For instance, Hsu *et al*. (2007) argued that individuals' behaviour and personality traits play an important role in the outcome of knowledge sharing efficiency at the individual level. Matzler *et al.* (2008) studied the decomposed dimensions of personality traits namely agreeableness, conscientiousness and openness to experience and its influence knowledge sharing. They found that personality dimensions have positive effect with

knowledge sharing. Furthermore, Fang and Liu (2002) examined the influence of five big personality traits factors (agreeableness, openness, neuroticism, extraversion and conscientiousness) on knowledge sharing among non-profit organizations and suggested that there is a strong relationship among the personality trait dimensions and knowledge sharing.

The interesting part of this debate on the influence of personality traits and knowledge sharing is centred on the point that though individuals could possess the knowledge necessary to move their organization forward, yet, the individual characteristics of the knowledge possessor could be a major barrier to knowledge sharing and the utilisation of such knowledge by other individuals in the organization. Whilst knowledge sharing is well studied in the organization setting, Fullwood *et al* (2013) lamented that not much have been done on knowledge sharing in the academic institutions. To enter into the debate of examining personality characteristics and knowledge sharing, this study tend to raise the issue that personality of academics and knowledge sharing is important for a knowledge-based institution, such as a university, where knowledge production, distribution and application are ingrained in their learning, research and publication activities.

Although there is no direct way to measure the outcome of knowledge sharing in knowledge institutions (Cheng *et al.,* 2009), yet investigating on how the personality trait dimensions influence knowledge sharing in the university setting is essential because the impact of knowledge sharing in the university environment could be larger than those created by the business organizations (Cheng *et al.*, 2009). Therefore, this study would investigate the influence of personality trait dimensions namely agreeableness, openness, neuroticism, extraversion and conscientiousness on knowledge sharing among academics in a public university in Malaysia. In the context of Malaysia, existing study by Teh *et al* (2011) examined the influence of big five personality factors on knowledge sharing behaviour among students but this current study differs in context because it will be conducted among academic staff .

1.4 Organization Background

Universiti Teknologi Malaysia (UTM), an innovation-led and graduate-focused research University, has two campuses; one in Kuala Lumpur (the capital city of Malaysia) and the second in Johor Bahru, (the southern city in Iskandar Malaysia, which is a vibrant economic corridor in the south of Peninsular Malaysia). UTM has academic staff strength of over 2,000 of which more than 200 are foreign graduate faculty members. UTM continuously strives to develop and enhance quality academic and professional programmes of international standard and global recognition. The student population consists of more than 15,000 full-time undergraduate students, over 6,000 enrolled on distance learning programmes as part-time students and more than 8,000 postgraduate students in various fields of specialization; out of which over 2,000 are foreign students.

UTM has also established a reputation for cutting-edge research undertakings and innovative education, proven by becoming the three-time winner for the National Intellectual Property Award for organization category. A stimulating research culture exists in UTM through 11 Research Alliances (RA) in strategic disciplines namely sustainability, Infocomm, water, cybernetics, Biotech, construction, materials and manufacturing, knowledge-economy, energy, transportation and nanotechnology. In addition there are 28 centres of excellence (CoE) in addition to academic faculties to service technological education and research needs of the university (UTM, 2013).

1.5 Purpose of the Study

The purpose of this research is to study how the personality trait dimensions influence on knowledge sharing among academic staffs at faculties of electrical engineering, chemical engineering and faculty of science at the Universiti Teknologi Malaysia (UTM), with highlight on the level of knowledge sharing and to understand

the personality dimensions that influences the academic staff's knowledge sharing process.

1.6 Research Question

To address the issues pertaining to personality traits dimensions and knowledge sharing, the following research questions would be answered in this study:

1. Does agreeableness influence academic staff knowledge sharing behaviour?
2. Does openness influence academic staff knowledge sharing behaviour?
3. Does neuroticism influence academic staff knowledge sharing behaviour?
4. Does extraversion influence academic staff knowledge sharing behaviour?
5. Does Conscientiousness influence academic staff knowledge sharing behaviour?
6. Which personality trait dimension is a dominant influencer of knowledge sharing behaviour?

1.7 Research Objectives

The main aim of this study is to examine how personality trait dimensions influence knowledge sharing behaviour among academics in the three faculties at Universiti Teknologi Malaysia. Based on this aim, the following research objectives are stated as follows:

1. To examine whether agreeableness trait would influence academic staff knowledge sharing behaviour.
2. To examine whether openness trait would influence academic staff knowledge sharing behaviour.
3. To investigate whether neuroticism trait would influence academic staff knowledge sharing behaviour.
4. To examine whether extraversion trait would influence academic staff knowledge sharing behaviour.
5. To investigate whether conscientiousness trait would influence academic staff knowledge sharing behaviour.
6. To identify the most dominant personality traits dimension that have the most influence on knowledge sharing behaviour

1.8 Significance of study

The purpose of this study is to examine whether the five personality trait dimensions would influence knowledge sharing among academics working in a knowledge and research intensive university. Common sense suggested that when these academics adequately share their own knowledge with one another, they are more likely to the development of skills and competencies, with increase in publish and research output, attainment of their key performance indicator and enhance of the global ranking of their university. This study contributes to a better understanding the influence of individual personality trait dimensions on knowledge sharing in a university establishment in the following ways:

First, many studies have been conducted in the field of knowledge sharing and the influence of personality trait dimensions in the business organization setting but the influence of personality traits dimensions on knowledge sharing in the university setting and among academic staff has received lesser research attention in the literature of knowledge sharing. Therefore, the finding of this study would

provide some contribution to the literature on the empirical validation of personality traits dimensions on knowledge sharing.

Secondly, this study contributes to the existing literature in the field of knowledge sharing as it provide higher academic institution with ways to foster knowledge sharing among academic staffs. Thus the finding of this study would serve as a guide to assist higher education institutions to determine the five personality trait dimensions that would enhance and foster knowledge sharing among their academic staff.

Lastly, the findings of this study would be useful to individual academic staff to know the personality trait dimensions that would foster knowledge sharing among. Also to ascertain which of the trait dimensions should be enhanced and compatible with sharing knowledge among other academic staffs.

1.9 Scope of the Study

This study is limited to focusing on the influence of personality traits (agreeableness, openness, neuroticism, extraversion and conscientiousness) on knowledge sharing among academic staffs at faculties of electrical engineering, chemical engineering and faculty of science at the Universiti Teknologi Malaysia (UTM). This study would focus mainly on the level of individual knowledge sharing behaviour by considering only academic staff of three faculties in whole university where it could have a limitation in sample size that is small in comparative to all academic staff in UTM.

1.10 Definitions of Key Terms

The definitions of the key terms and concepts used in this study are provided as follows:

1.10.1 Knowledge Sharing

The conceptual and operational definitions of knowledge sharing are presented as:

1.10.1.1 Conceptual Definition

Knowledge sharing is defined as the practice of knowledge exchanging (skills, experience, and understanding) amongst researchers, policymakers, and service providers (Tsui *et al*, 2006). It encompasses the process whereby the explicit and tacit knowledge is communicated to other individuals. Knowledge sharing occurs when an individual is willing to assist others as well as learn from others the latest competencies (Yang and Farn, 2009).

1.10.1.2 Operational Definition

In this study, knowledge sharing is referred to as the degree by which work related knowledge are shared and communicated among academic staff at the Universiti Teknologi Malaysia.

1.10.2 Personality

Personality is defined as a dynamic and organised set of characteristics possessed by an individual that distinctively influences his or her cognition, motivation and behaviour (Ryckman, 2004). The big five personality theory recognises five trait dimensions which are defined below.

1.10.3 Agreeableness

1.10.3.1 Conceptual Definition

Agreeableness is defined a trait dimension that deals with interpersonal tendencies characterized as sympathetic, being helpful to others, soft-hearted, cooperative, generous and cheerful, and good-natured (Liao and Chuang, 2004).

1.10.3.2 Operational Definition

In this study, agreeableness is a personality trait which represents individual's ability to be helpful, co-operative and generous.

1.10.4 Openness

1.10.4.1 Conceptual Definition

Openness describes a dimension of personality trait that is characterized by the individuals' active imagination, intellectual curiosity, aesthetic sensitivity, vivid imaginative, and independence of judgment (Barrick and Mount, 1991; LePine and Van Dyne, 2001). Individuals with high openness tend to explore any opportunity to keep knowledge updated and are willing to entertain new and original ideas.

1.10.4.2 Operational Definition

In this study, openness is a personality trait which represents individual's ability to be creative and innovative.

1.10.5 Neuroticism

1.10.5.1 Conceptual Definition

Neuroticism is characterized by lack of psychological adjustment, emotional instability, feeling of anxiety and guilt, worrying, sadness, fear, anger, and moodiness (Costa and McCrae, 1992; Swickert *et al*, 2010).

1.10.5.2 Operational Definition

In this study, neuroticism is a personality trait which represents individual's emotional instability, feeling of anxiety and moodiness.

1.10.6 Extraversion

1.10.6.1 Conceptual Definition

Extraversion is defined by the intensity of interpersonal interaction and activity characterized by of sociability, talkativeness, assertiveness, and high involvement in activities (Pervin, 2003). People with high extraversion are generally bold, active, adventurous and expressive (Barrick *et al.*, 2002).

1.10.6.2 Operational Definition

In this study, extraversion is a personality trait which represents individual's ability to be sociable, assertive and participate in activities.

1.10.7 Conscientiousness

1.10.7.1 Conceptual Definitions

Conscientiousness is a personality trait dimensions characterized by an individual commitment in planning, organizing, and carrying out tasks, and more specifically, such individuals are purposeful, determined, punctual, dependable, dutiful, strong-willed, achievement oriented, reliable, organized and hardworking (Costa and McCrae, 1992; Caliguri, 2000).

1.10.7.2 Operational Definitions

In this study, conscientiousness is a personality trait which represents individual's commitment in planning, organizing, carrying out tasks and hardworking.

1.11 Organization of Thesis Chapters

This study which is focused on examining the influence of personality trait dimensions on knowledge sharing among academic staff in UTM is organised into five chapters.

Chapter one presents an introduction and the background of the study, problem statements, research questions and research objectives, followed by the scope of the study, significance of the study and the definitions of the key terms mentioned in the study.

Chapter two focus on the literature review. It is used to analysis, discuss and highlight previous literatures and existing studies related to this study.

Chapter three presents the research methodology, methods of data collection, the sampling technique and the instruments that were used to conduct the research. This serves as the temporary end of the research proposal.

Chapter four would be devoted to data analysis and discussion of findings.

Chapter five would be devoted to the research summary and conclusion as well recommendations future research.

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