The Influence of Trust, Information Technology and Communication Skill on Knowledge Transfer in MADA (Muda Agricultural Development Authority)

By

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Abstract

This study was conducted to investigate the influence of trust, information technology and communication skill on knowledge transfer among extension officer in Muda Agricultural Development Authority (MADA). The aim of this study is to identify the relationship of trust, information technology and communication skill towards knowledge transfer. The dependent variable used in this study is knowledge transfer, whereas the independent variables comprises of trust, information technology and communication skill. This study was done through quantitative approach in which questionnaires were used as a medium to collect data. The respondents for this study were MADA extension officer and 113 questionnaires were distributed. The results of the study showed positive significant relationship between information technology and knowledge transfer.

Keyword: knowledge transfer, trust, information technology and communication skill

Abstrak

Kajian ini dijalankan untuk mengkaji pengaruh kepercayaan, teknologi maklumat dan kemahiran berkomunikasi terhadap pemindahan pengetahuan di kalangan pegawai pengembangan di Lembaga Kemajuan Pertanian Muda (MADA). Matlamat kajian ini adalah untuk mengenalpasti hubungan di antara kepercayaan, teknologi maklumat dan kemahiran berkomunikasi terhadap pemindahan pengetahuan. Pembolehubah bersandar yang digunakan di dalam kajian ini adalah pemindahan pengetahuan manakala pembolehubah bebas terdiri daripada kepercayaan, teknologi maklumat dan kemahiran berkomunikasi. Kajian ini dilakukan melalui kaedah kuantitatif di mana borang soal selidik digunakan sebagai perantaraan untuk mengumpul data. Responden kajian ini adalah terdiri daripada pengawai pengembangan MADA dan sebanyak 113 borang soal selidik telah diedarkan. Keputusan analisis regrasi menunjukkan teknologi maklumat merupakan faktor terbesar yang menyumbang terhadap pemindahan pengetahuan.

Kata Kunci: pemindahan pengetahuan, kepercayaan, teknologi maklumat dan kemahiran berkomunikasi

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MADA	Muda Agricultural Development Authority
SPSS	Statistical Package for the Social Science

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Process of learning is life-long journeys that never stop and need to be replenished (Smith & Meaney, 2016). People learn and gain knowledge from past experience. For example, people learn how to crawl, later learn how to walk and then run. Transferring knowledge by upgrading skill from one situation to another situation can speed up the learning process (Chin, 2013). Thus, employees with a good knowledge and able to transfer knowledge are an advantage for an organization.

Knowledge is the most important key resources in organization (Jasimuddin, 2012) and Syed-Ikhsan and Rowland (2004) in their research clearly stated that organization's success and competitiveness are depending on the transfer of knowledge within the organization. In order to sustain especially in this borderless world, organization need to have a proper knowledge management system to cater clients' requirement.

Managing knowledge and information resources is essential and vital for organization to stay relevant in the industries. Many studies have been done by researchers regarding the importance and effectiveness of knowledge management in organization (Handzic, 2011). Organization that appreciates and committed towards knowledge transfer will sustain as knowledge is a prime commodity (Ferede & Mathew, 2015). Either private sector or public

sector, both need to embrace in effective knowledge transfer to remain competitive in business (Islam, Hasan & Rahman, 2015). Even though knowledge transfer is very important in organization, the reality and actual transfer of knowledge in organization is still remain unsolved issue among the management (Jacob & Ebrahimpur, 2001). It is important to design knowledge transfer strategies in order to ensure that knowledge is transferred to the right individual at the right time. In other words, knowledge transfer need to be measured and valued to see the effectiveness in organization. Realizing the importance of knowledge transfer, organizations is challenged to promote and encourage employees to transfer with their team and cross organizational units (Choi et.al, 2008)

In Southeast Asia, Malaysia and Singapore are considered as leading country championing knowledge management and knowledge transfer. Malaysia is one of the country that practice knowledge-based economy and it was created align with Vision 2020 inspired by former Malaysia Prime Minister, Tun Dr. Mahathir Mohamad (Noorazah & Salim, 2011). To make sure that Vision 2020 aligned with country economic direction, Malaysian Administrative Modernization and Planning Unit (MAMPU) put an effort to established and implement knowledge management in public sector. It is to enable government to manage and share knowledge among government department and agencies. Subsequently, it will improve government service towards the people. Studies have been done about knowledge management system (Syed-Ikhsan & Rowland, 2004; Siddique, 2006; Rhodes et.al, 2008; Noorazah & Salim, 2011, Chong et.al, 2011; Sandhu) and only little studies regarding

knowledge transfer especially in public sectors. Most of the studies were carried out involving private sectors.

Muda Agriculture Development Authority (MADA) is an agriculture agencies under Ministry of Agriculture and Agro-Based Industry and responsible to operate the biggest granary area in northern Malaysia among other eight granary area cultivating paddy in Malaysia. The New Malaysia Economic Transformation Program (ETP) under the 10th Malaysia Plan have identified the necessity of scaling up and increasing productivity of paddy farming in order to tackle the food crisis issue. Two major initiatives under the National Key Economic Areas (NKEA) is to strengthen and scaling up paddy productivity in MADA area since it is the largest granary area (Hussin & Mat, 2013). Various programs and initiative were executed by MADA such as credit facilities to the farmers, fertilizer subsidies, upgrading and developing irrigation infrastructure including strengthening extension services by MADA agriculture officer. Extension service activities covers paddy cultivation schedule campaign, giving advices and recommendation on paddy Standard Operating Procedure (SOP), engagement with farmers, training and hands on programs to educate farmers with the right method plus handling harvesting season. Extension services usually done by MADA Agriculture officer from grade G29, G32, G36 and G41/44. As an extension officer, they need to equip themselves as follow;

a) current paddy practices,
b) knowledgeable in pesticides,
c) keep up with latest technology and mechanism in paddy planting and

d) detect outbreak and taking preventives measure before the outbreak spread to other paddy plot.

Usually farmers will refer to them for advice and guidance. To support farmers, extension officers to be knowledgeable and update themselves with current agriculture news. Since NKEA initiatives started in 2012, MADA need to increase paddy production to support food security policy. One of mechanism to increase paddy production is to increase knowledge among employees especially extension officers regarding paddy production. With sufficient knowledge, they will be able to advice farmers how to increase paddy production. Kamaruddin, Ali and Saad (2013) research in MADA finds that institution factor is important to increase paddy production. Institution factor indicator were advice and assistant in cultivation of rice, weeds control, insect control, fertilization and harvesting. Their findings shows that the role play by MADA, particularly in terms of giving advisory assistance to farmers improve farmers' capability. Hence, improves farmers' paddy production.

Extension officer's roles are important as a middle man between government and farmers. Thus, they need to be knowledgeable through transfer of knowledge among themselves by building trust among them, blending information technology application in their work and effective communication skill. This research aim to focus on investigating the influence of knowledge transfer among extension officers to help them

improve their services towards assisting farmers increasing paddy production.

1.2 Problem Statement

Argote et.al (2000) agreed that organizations that are able to manage knowledge transfer effectively from one unit to another unit are more efficient, productive and sustainable compared to those that are less adept to knowledge transfer. However, Rhodes et.al (2008) claimed that the effectiveness of knowledge transfer which is influenced by key organizational such as structure, processes, strategy and culture is still vague and unclear. The challenge with evaluating knowledge transfer is that "*there is no established, verified method to measure the knowledge transfer process*" (Kuschminder, 2012). Referring to the earlier part, organizations realized the importance of knowledge transfer but do not understand mechanism to measure the effectiveness of knowledge transfer. It will be beneficial to organizations if they can manage to apply and measure knowledge transfer through. This is because of the knowledge gap in the knowledge management area.

According to Syed-Ikhsan and Rowland (2004), researchers have been studying a lot on knowledge management system and knowledge transfer in many areas, but in public sector especially in developing countries less attention is given. Regardless of the fact that there were many researches on knowledge transfer but then less attention have been given in the area of agriculture sector specifically in the Malaysian context. Sousa et al (2016)

claimed that knowledge transfer in agriculture background by extension services are still left behind and need more research attention. Based on the gap mentioned before, the study is to identify what are the factors that influence knowledge transfer among the extension officers at MADA.

The studies on knowledge transfer are important to an organization as it is seen as a basis for competitive advantage (Goh, 2002). However not much awareness has been stated on knowledge transfer among extension officers in public sectors. Most of the studies were conducted in private sectors (Werr et.al, 2009; Bocquest & Mothe, 2010; Chong et.al, 2011), logistic and transportation industry (Cheung et.al, 2005), electronic industries (Huang et.al, 2005), healthcare and pharmaceuticals (Azan & Sutter, 2010; Magnier-Watanabe et.al, 2010), education and academician (Batra, 2009), insurance industry (Huang et.al, 2011) and telecommunication companies (Chong et.al, 2009).

One of major issues facing by the government is food security and it is becoming a centre of attention. Population in Malaysia is growing to 2.7 million and demand in food is increasing (Razak et.al, 2013). Muda Agriculture Development Authority (MADA) is given a huge responsibility under National Agro Food Policy 2011-2020 to increase rice stockpile as rice is staple food. Extension officers in MADA responsible to disseminate information and knowledge to the farmers to increase paddy production.

This study aimed to examine the influence of trust, information technology and communication skill toward knowledge transfer, which will help boost up employees' passion in doing work. At the moment, align with Agro Food Policy, MADA needs to increase yield at 7.5 tonne per hectare. Currently, MADA average yield is 6.5 tonne per hectare. In order to achieve the targeted yield, extension officers need to work closely by sharing and transferring their knowledge and skills with farmers.

In summary, the Malaysian government has acknowledged the importance of knowledge management in improving public sector services towards the people. Thus, this research can make an effective contribution to understand and identify the influence of knowledge transfer among extension officers in agriculture sector.

1.3 Research Questions

Based on the purpose of this study, the research questions are as follow:

a) Does trust among employees has an influence on knowledge transfer?

b) Does information technology has an influence on knowledge transfer?

c) Does communication skill has an influence on knowledge transfer?

1.4 Research Objectives

In line with research questions, the following research objectives are formulated.

a) To examine the influence of trust on knowledge transfer.

b) To analyze the influence of information technology on knowledge transfer.

c) To investigate the influence of communication skill on knowledge transfer.

1.5 Significance of Study

This research is conducted to examine how trust, information technology and communication skill influence toward knowledge transfer among the extension officers in MADA. More than that, it also can increase quality of knowledge disseminations and engagement between farmers and extension officers through effective knowledge transfer based on this research.

From the theoretical perspectives, potential findings from this study may contribute to the current body of knowledge on knowledge transfer. The main empirical implication of this research primarily focus on knowledge transfer and improving knowledge dissemination among extension officers in public sectors besides increase knowledge engagement with the farmers. Apart from that, this study also can provide a better understanding of the factors that influences knowledge transfer to strengthen and boost extension officer's responsibilities and obligation towards organization. This finding will help in determining the appropriate instrument to be used in Malaysian context to

support the practice of knowledge-based economy. This study should be beneficial to both scholars and practitioners regarding ways for increasing and encouraging knowledge transfer within organizations.

1.6 Scope of Study

The main focus of this study was to examine factors that influences knowledge transfer on agriculture sector in Perlis and Kedah, Malaysia. This study was conducted to determine elements, which might influence knowledge transfer among extension officers in Malaysia. Specifically, the study aims to identify whether factors like trust, information technology and communication skill have a direct relationship with knowledge transfer. This study investigate which factors support knowledge transfer occurrences in extension services specifically in agriculture sector in Malaysia.

1.7 Definition of Key Terms

1.7.1 Knowledge Transfer

Knowledge transfer means a process of passing knowledge from one person or a place to another (involves two or more parties) which knowledge transfers need to have source of knowledge and destination (Major & Cordey-Hayes, 2002).

1.7.2 Trust

Trust refers to determination the extent an individual is willing to associate and interact with other (Kumar, Rose & Muien, 2009).

1.7.3 Information Technology

Information technology refers as a key enabler in supporting transformation of knowledge management by capturing, storing, transforming and disseminating information (Syed-Ikhsan-Rowland, 2004).

1.7.4 Communication Skill

A process of transaction between individual and group in variety platform which will lead to achieve organizational goal (Brunetto & Farr-Wharton, 2004).

1.8 Organization of Chapter in Thesis

Chapter one serves as the introduction of the study with a brief description of the research background. This chapter also includes the problem statement, research questions, research objectives, scope of study, significance of the study and definition of key terms.

Chapter two presents literature review on the conceptualization of the independent variables and dependent variables chosen for this study. This chapter also discusses knowledge transfer and the factors, which are trust, information technology and communication skill that affect knowledge transfer as well as deliberation on hypothesis development.

Chapter three describes the research design and methodology that applied in this study. This chapter also presents the detail data collection method used for this study and analysis technique use to analyze data collection.

Chapter four interprets the finding based on the analysis of the data collection.

Chapter five is the final section of the study and it provides the summary of the findings that should be consistent with the research objectives. This chapter also presents the contribution of this research, implication, limitation of the study as well as recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses previous and relevant literature related to knowledge transfer and the relationship between the variables in this study. The review summarized the relevant literature with this study. Finally, this chapter concludes by research framework and the development of hypothesis.

2.2 Knowledge

Knowledge is powerful and no great work can be done without knowledge. Even Socrates and Plato have different view and detail in determining the right word to portray the right definition of knowledge (Liyanage et.al, 2009). Nowadays, new terms and process relating to the management of knowledge have grown and created such as knowledge-based employees, knowledge based-economy and knowledge-driven economy (Alavi and Leidner, 2001).

Knowledge can be divided into two; tacit and explicit which is classified through the complexity of the knowledge. Explicit knowledge can be captured and documented in symbols while tacit knowledge is hard to be portrayed and articulate (Polanyi, 1966). Explicit knowledge is easy to transfer as it usually documented and easily access. For example; software code, market data, Standard Operating Procedure, Accounting Report and Audit Report. People can trace the information and use it as knowledge. In contrast with explicit knowledge, tacit knowledge is hard to codify and

understood without interaction between sender (information source) and receiver. Tecee (1998) claim that tacit knowledge is hard to imitate and Nonaka & Takeuchi (1995) agree that it needs rich communication and interpersonal interaction between both parties.

2.3 Knowledge Management

Knowledge management has been classified into many terms depending on the condition and context. Nonaka (1994) came out with the term of knowledge creation and later Shapiro (1999) introduced knowledge capture. Knowledge sharing (Dyer, 2000) is one of knowledge management area and Argote and Ingram (2000) also indicate knowledge transfer as one of knowledge management area. No matter how many term being created, it is all about using knowledge in developing a country and contribute to the development of civilization.

Researchers have been discussing widely regarding knowledge management but not much information in public sector. Syed-Ikhsan And Rowland (2004) have done an empirical study in public organization in Malaysia and the study revealed that there was no specific knowledge management strategy implemented in the organization. However, the knowledge was available through procedures and policy, Job Manual Procedure, Desk File, database and ISO but it need to be coordinated and manage well. In order to have a successful knowledge management, public sectors need to embrace in organizational culture, technology, organization structure and human resources. Liebowitz and Chen (2003) identify knowledge sharing in

government sectors have a unique challenges as the organization structure layers and bureaucratic system make knowledge sharing difficult. Their study revealed that even some of the employees reluctant to share their knowledge as they feel knowledge would secure their position in upper rank in organization.

2.4 Knowledge Transfer

Many organizations realize the importance of knowledge transfer in order to sustain and remain competitive (Gururajan & Fink, 2010). However, they do not know how to capture the knowledge and what type of knowledge that needs to be transfer. Organizations might know the right knowledge to be transfer, but they are not sure the right mechanism to harness and retrieved the knowledge (Liyanage et.al, 2009). According to Argote and Ingram (2000), the creation of knowledge transfer in organization is important, as it is the basis for the organization to stay competitive. Irony, they claimed that successful knowledge transfer is difficult to achieve.

Knowledge transfer can be defined as an experience from one unit (department, division, team) affecting other unit (Argote and Ingram, 2000). Major and Cordey-Hayes (2002) define knowledge transfer as a process of passing knowledge from one place or a person to another (involves two or more parties) which knowledge transfers need to have source of knowledge and destination. According to Goh (2002), knowledge transfer requires willingness from group member or individual to work together for his or her own benefit. Therefore, knowledge transfer will only occur in organization

with cooperation from the employees. Argote and Ingram (2000) introduce the modes of knowledge transfer, which has two main components:

i. The source of knowledge or sender who ready to share the knowledge.
ii. Receiver who acquires the knowledge

Rhodes et.al (2008) findings show that knowledge transfers through good communication skill and trust culture among employees are vital in order for organization innovation and success. Culture awareness, motivation, knowledge distance, trust and openness are also related to the factor influenced knowledge transfer.

Knowledge transfer can be accomplished through three dimension of competencies; ability, motivation and seeking for opportunity (Chang, Gong & Peng, 2012). Zaidi et.al (2016) findings also supported research done by Rhodes et.al (2008). Zaidi et.al (2016) have listed seventeen (17) factors as the key variables that influence knowledge transfer effectiveness. The factors are listed according to the most significant to the least significant.

i. Personal skills
ii. Communication
iii. Individual attitude
iv. Motivation
v. Information technology
vi. Creating shared awareness for information sharing
vii. Information sharing

viii. Training

ix. Socialization

x. Staff briefing

xi. Knowledge tools

xii. Coaching and mentoring

xiii. Information supply

xiv. Monitoring and supervision

xv. Service quality

Successful knowledge transfer is based on knowledge transmission medium, knowledge characteristic (tacit or explicit) and recipient capacity to absorb the knowledge (Teigland and Wasko, 2009). Liyanege et.al (2009) describe knowledge transfer can be consider success if organization able to apply knowledge.

2.5 Trust

Trust determines how far a person is willing to interact and communicate with other person (Kumar, Rose and Muien, 2000). It is not easy for a person to trust someone easily and it is important for an organization to nurture trust among the employees. According to Turner and Makhija (2006), trust plays an important role for a person to transfer and share knowledge with others. Duan, Nie and Coakes (2008) finding shows that trust is one of the key factors affecting knowledge transfer. Organizations need to cultivate trust culture in the organization as it can be created through social interaction. Face to face meeting is the most effective way to cultivate trust among employees. In order for the government to pursue successful and efficient

country, Siddiquee (2006) suggested that more studies on the public servants behaviour should be conducted. Extension officers need to gain trust from the farmers, as it is important in disseminating information and knowledge transfer. Sandhu et.al (2011) claimed that interaction, trust, time and interpersonal skill were identified as individual barrier among public servant that holding them from delivering the best service to client. In addition to this, trust culture among employees encourages and facilitates communication for knowledge disseminations (Politis, 2003). This study investigated the quality of trust among extension employees in MADA in delivering and disseminating knowledge and information towards their peers, organization and client. Working environment requires a person to believe and trust another person as it gives a big impact to their daily working situation. Relying on a person needs a trust, which cannot be built within a day.

2.5.1 Previous Studies on Trust and Knowledge Transfer

In a study conducted by Rhodes et.al (2008) involving 1,086 high tech-companies, trust is significantly associated with knowledge transfer. Another study done by Sankowska (2016) showed that trust has a positive effect on knowledge transfer when it was tested among Warsaw Stock Exchange employees. However, there was a mix result when referring a study done by Islam et.al (2015) involving 120 public sector employees in Brunei. The findings concluded that trust has insignificant relationship with knowledge transfer. This result contradict with the research findings by Migdadi (2009)

and Seba and Delbridge (2012) which found that trust is one of factors that have strong affect with knowledge transfer.

2.6 Information Technology

Rhodes et.al (2008) study findings show that organizational with information technology (IT) system had most significant impact on knowledge transfer within. Knowledge can also be transforms into tools and technology. With a proper ICT technology, employees are able to acquire information and knowledge faster, which will lead to efficient decision-making. In line with Syed-Ikhsan and Rowland (2004), technology is important in knowledge management, as it is the most effective medium in capturing, storing and disseminating information. Reliability of data, information stored public-sector repository is very important as inaccurate data can cause problem to the government as whole. Organization structure, culture, strategy and technology also contribute to the effectiveness of organizational knowledge transfer (Ives et.al 2003).

According to Alavi & Leidner (2001), information technology not only speed up knowledge transfer, it also improves organization performance. Sulaiman et.al (2012) urge the need to find ways in implementing technology in communication, innovation and extension services. Flyers, mobile unit, charts, handbill, demonstration and oral campaign need to be replaced with current technology. According to Sousa, Nicolay and Home (2016), video on mobile phones has become latest extension gadget and farmer-to-farmer information exchange that is an effective platform in knowledge

dissemination. Researchers have develop new technologies in agriculture extension but the respond are not as expected. It is due to financial issue as not all farmers can afford to but latest gadget (Kiptot et.al, 2007). Besides financial issue, generation gap is also a challenge in knowledge transfer through technology (Bozavli, 2016). Suebsom (2015) claimed that social network as one of information technology in disseminating information can act as a motivator to encourage knowledge transfer. Nevertheless, information technology alone is not the ultimate solution in speeding up knowledge transfer because it still requires the willingness of employee to share knowledge. In this study, information technology will covers the usage of information technology through software development, database, social media and intranet system to transfer knowledge. MADA have introduced the use of computerized system in the early 90s and Internet in 1995. They encourage the use of information technology to improve their information delivery system. This study will investigate the knowledge transfer using the information technology in extension service daily job.

2.6.1 Previous Studies on Information Technology and Knowledge Transfer

One of the most important factors in organization suggested by researchers and practitioners as an effective mechanism in knowledge management is information technology (Sher & Lee, 2004). In past research by Rhodes et.al (2008), information technology had the greatest impact on knowledge transfer when a study were conducted in high tech industries. The study was carried out involving 1,086 sample among targeted Chief Executive Officer,

Chief Operation Officer, Chief Finance Officer and top management. Their level of exposure in information technology and experience affect the knowledge transfer result. In addition to this, Teo and Bhattacherjee (2014) did a research in Singapore public sector service, involving 146 samples which shows that information technology generated significant operational and strategic performance gain towards knowledge transfer.

2.7 Communication Skill

Communication can be defined as a process of transaction between individual and group in variety of platform. The goal of effective communication is to achieve organization target (Brunetto & Farr-Wharton, 2004). Knowledge transfer as defined before is the ability to deliver knowledge from a place, one person to another. It is a way of communication, delivering knowledge from sender to a recipient using certain platform (Liyanage et.al, 2009).

Davenport and Prusak (2000) in their research claimed that large organizations normally have many layers of management from top management to the lower employees. The top management usually have more detailed reporting structured compared to the lower employee. Decision making and communication flow usually from up to the bottom that will slow down the organization performance. According to Bonito et.al (2008), failure in communication process will affect group decision. Subsequently, it can reduce quality of decision-making. Therefore, it is crucial for extension officers to get the first hand information and decision as they represent the

organization. They will pass and transfer the knowledge to the farmers. Zaidi et.al (2016) support that communication is important in effectiveness of knowledge transfer in organization.

Knowledge transfer can be seen as an act of communication from a person who are willing to share knowledge or consulting others who wants to share knowledge Liyanage et.al (2008). Johari & Nazir (2015) in their research finding shows that communication gives a big impact to the organization performance besides training & development and reward & recognition. Hence, by enhancing communication skill among public sector employees, it will increase customer satisfaction. Extension officers need to have a good quality of communication skill in delivering their responsibility towards the farmers. Average age of MADA farmers is 60.2 years old. Extension officers need to possess both tacit and explicit knowledge to tackle and approach the farmers. Robbins (2001) reported organization with low communication would have an impact toward organization commitment resulting in lower employees' commitment and loyalty.

For this study, communication skill will look into communication as platform to disseminate and transfer knowledge. It will be measured through frequency of communication among the stakeholders and employees within the organization. Communication channel can be in various ways such as meeting, training, informal session, social media (Facebook, Whatsapp, WeChat and Messenger) and printed material.

2.7.1 Previous Studies on Communication Skill and Knowledge Transfer

Lack of communication skill is one of the factor that hinder knowledge transfer process. Previous study in information system offshoring involving IT specialist shows communication skill is significant towards knowledge transfer. In past research by Zaidi et.al (2016), communication factor is the second strongest factor that influenced knowledge after poor attitudes. The study was done among Malaysia constructive firm employees involving 151 respondents. Apart from that, Sun et.al (2016) analysis shows that communication has a significantly positive impact on knowledge transfer performance involving 165 samples. However, study done by Islam et.al (2015) in public sector background in Brunei show different result when communication skill remain insignificant towards knowledge transfer.

2.8 Research Framework

The research framework showed in Figure 2.1 below which has been proposed for this study. This study research framework shows the linked between independent variables and dependent variable. Theoretical framework developed based on the theoretical framework adapted from Islam, Hassan and Rahman (2015) and Rhodes et.al (2008) and previous literature related to knowledge transfer, trust, information technology and communication skill. The dependent variable presented by knowledge transfer is the primary interest to researchers. Independent variables are presented by trust, information technology and communication skill. Literature review indicates that independent variables show great varying

degrees of influence on the knowledge transfer in organization. Thus, it can be said that trust, information technology and communication skill are related with knowledge transfer. As this study analyzed the relationship between trust, information technology, communication skill and knowledge transfer among extension officers in MADA.

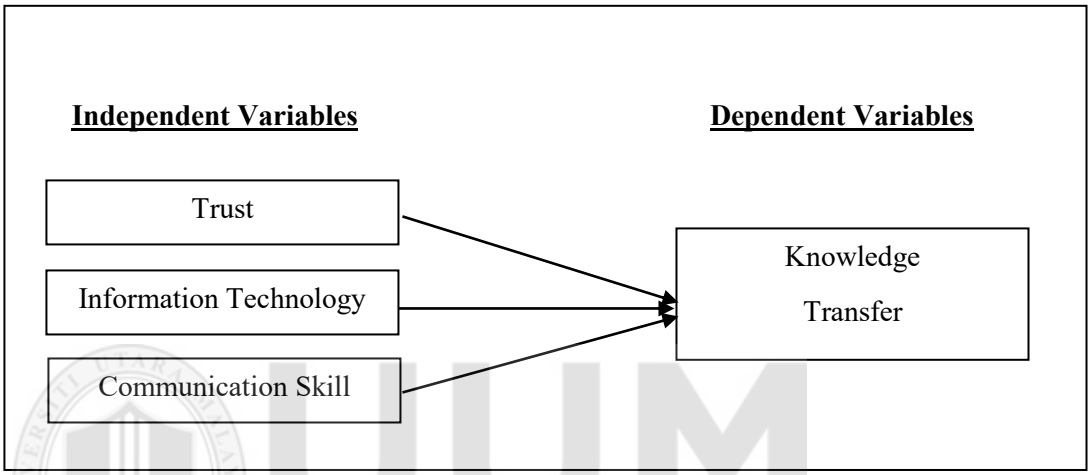

Figure 2.1
The relationship between independent variables and dependent variable
Source: Islam, Hassan & Rahman (2015) and Rhodes et.al (2008)

2.9 Development of Hypotheses

There are three hypotheses to be tested in this study either they are accepted or rejected.

2.9.1 Relationship between Trust and Knowledge Transfer

For the first hypotheses, according to Sankwoska (2016) and Turner and Makhija (2006) trust plays an important role in how employees transfer knowledge in organization. Employees that are able to manage knowledge have a significant influence towards employee behaviour. Finding by other

researcher, Seba and Delbridge (2012) that found that trust is one of factors that have strong affect with knowledge transfer. This study will support the proposition that when trust culture embedded in organization, knowledge transfer will take place more naturally (Knapp, 1998). Thus, the preceding discussion leads to the following hypothesis:

H1: There is significant relationship between trust and knowledge transfer.

2.9.2 Relationship between Information Technology and Knowledge Transfer

Information technology is an important key enabler in implementing knowledge management in an organization (Syed-Ikhsan & Rowland, 2004). It can be considered as the most effective platform in capturing data, keeping record, analyzing, transforming and disseminating information. Some other study by Iyengar, Sweeney and Montealegre (2015) shows that information technology roles are significant towards knowledge transfer. It has become powerful, fast and cost effective in transferring knowledge. With advancement in ICT infrastructure, it will help employees to create, share and transfer knowledge in the organization. Effective knowledge management requires people in the organization to access knowledge through computer facilities. Thus, the second hypothesis is as follow:

H2: There is significant relationship between information technology and knowledge transfer.

2.9.3 Relationship between Knowledge Transfer and Communication Skill

According to Du Plessis and Boshoff (2008) and Sun et.al (2016), communication between people who are working together in the same organization is an important medium in order to achieve organization goals and mission. Furthermore, communication skill is essential in organization as it is the platform for employees to share and transfer knowledge (Moss & Warnaby, 1998). Zaidi et.al (2016), communication skill factor is the second strongest factor that influenced knowledge. By having and effective communication through any form; written material, oral, social media and ICT, it will help to promote knowledge transfer in organization. Therefore, effective communication skill will be a major effort in the success of knowledge transfer. Hence, it is hypothesized that:

H3: There is significant relationship between communication skill and knowledge transfer.

2.10 Conclusion

This chapter presents the discussion on the concept and previous researches on knowledge management, knowledge transfer, trust, information technology and communication skill. Moreover, this chapter also provides on the related model, research framework and research hypotheses tested in this study. The following chapter, Chapter 3 outlines the method of the study that being used in this research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the explanation on methods employed in the study. This chapter also consists of sample design; survey materials used and the process of data collection are described in the study. There are also includes the measurement for every variables that are being study upon. Finally, this chapter ended with techniques that are selected for data analysis.

3.2 Research Design

Sekaran and Bougie (2013) define research design as an organizing a plan and implementing procedure for data collection process, analyzing and translate the output in order to summarize the result. According to Creswell (2009) research design is important as guidance for researcher to have a clear perspective regarding the idea, data and analysis process to support this study. This research aimed to describe the relationship between dependent variable and independent variable.

Quantitative research design is used in this study that emphasizes through questionnaire as the method of data collections with statistical analysis and objectives measurement (Babbie, 2010). Quantitative method is suitable for this study as it allow the testing of relationship between variables using statistical methods. This is consistent with the primary objective of this study which to investigate the direct relationship between trust, information

technology, communication skill and knowledge transfer. This research design can be classified by the whole population and convey out on to enable analysis to be sufficient. The most important part is to get response from respondent about their perception regarding the variables.

3.3 Populations and Sampling Design

3.3.1 Population

Table 3.1 below shows the total number of extension officers for each of MADA regional offices. Since government had set policies to increase rice production and stockpile, extension officers need to double up their engagement with paddy farmers by assisting them with right knowledge, information and technology to increase production. Extension officers need to have sufficient knowledge and information, which can be achieved through knowledge transfer.

In this research, MADA regional offices were chosen which is located in four district; Perlis, Jitra, Pendang and Kota Sarang Semut. The total population for this study was 154. The reason for choosing regional offices because it is regional offices responsibility to carry out extension services and serve direct to the farmers.

Table 3.1
Distribution of Extension officers in MADA Regional Office

MADA REGIONAL OFFICE	TOTAL NUMBER OF EXTENSION OFFICERS
Perlis	29
Jitra	51
Pendang	34
Kota Sarang Semut	40
TOTAL	**154**

3.3.2 Sampling Size

In determining the sampling size, sampling process need to be done. Three important steps are identifying the target population, determining the sample size and to choose the sample. The total numbers of extension officers were obtained from MADA Human Resources Department. Based on the sample size, the selected sample size for this study is 113 (Krejcie & Morgan, 1970). Sample size needed for this study symbolize the whole study population.

3.3.3 Sampling Technique

In this study, one hundred and thirteen (113) respondents from four regional offices were selected based on random sampling. Authentic form of fair sampling is called random sampling techniques. In this simple random sampling each member of population is equally likely to be chosen as part of the sample. It has been stated, "*The logic behind simple random sampling is that it removes bias from the selection procedure and should result in representative samples*". Before distributing the questionnaire to the respondents, probability sampling was determined through this formula:

Probability sampling of extension officers: NP / T x NS

NP: Total number of extension officers in each regional office

T: Total number of extension officers in MADA regional offices

NS: Number of sample to be distributed

Table 3.2 below displays number of sample distributed according to the formula mentioned above.

Table 3.2
Distribution of respondent for each MADA Regional Office

MADA REGIONAL OFFICE	TOTAL NUMBER OF EXTENSION OFFICERS (N: 154)	TOTAL RESPONDENTS (S: 113)	% OF SAMPLING
Perlis	29	21	18.60
Jitra	51	37	32.74
Pendang	34	25	22.12
Kota Sarang Semut	40	30	26.54
TOTAL	**154**	**113**	**100**

3.4 Operational Definitions and Measurements

The measurement implemented in this study and their operational definitions are discussed in several subsections. Discussions begin with dependent variable (knowledge transfer) and followed by the independent variables (trust, information technology and communication skill).

3.4.1 Knowledge Transfer Measures

In this study, knowledge transfer is the dependent variable. Knowledge transfer is defines as a process of passing knowledge from one person or a place to another (involves two or more parties) which knowledge transfers need to have source of knowledge and destination (Major & Cordey-Hayes, 2002). As shown in Table 3.3 knowledge transfers were measured by seven items using Likert scale of 1-strongly disagrees to 5-strongly agree.

Table 3.3
Knowledge Transfer items

SECTION	OPERATIONAL DEFINITION	ITEMS	SOURCES
B (Knowledge Transfer)	Knowledge transfer means a process of passing knowledge from one person or a place to another (involves two or more parties) which knowledge transfers need to have source of knowledge and destination (Major & Cordey-Hayes, 2002).	1. My organization saves and renews important information onto the computer for easy and faster browsing. 2. Knowledge is categorized in the database for use by all employees. 3. My organization saves important information through report and pictures in the computer. 4. Employees use e-mail or internal network (eg.GOE EGDMS) to share knowledge with others. 5. Employees are willing to share experiences and knowledge with others. 6. My organizations transfer employee experience to other employees. 7. My organization transfer effective knowledge to employees through training courses, presentation and internal magazine / bulletin.	Rhodes et.al (2008)

3.4.2 Trust Measures

Trust is the independent variables. Trust is defined as determination to the extent an individual is willing to associate and interact with other (Kumar, Rose & Muien, 2009). As shown in Table 3.4, trust were measured by six items using Likert scale of 1-strongly disagree to 5 strongly agree. Rating scale is used to record the response for the instrument.

Table 3.4
Trust items

SECTION	OPERATIONAL DEFINITIONS	ITEMS	SOURCES
C (Trust)	Determination the extent an individual is willing to associate and interact with other (Kumar, Rose & Muien, 2009).	1. My organization appreciates employee's contribution and effort. 2. My superior / senior leader support employees when suggesting alternative perspectives. 3. My organization encourages employees to learn and tolerate employees' mistakes. 4. Superior / senior leader of my department trusts employees' capability. 5. The atmosphere in my organization helps employee to trust each other. 6. I feel a risk to transfer and share knowledge because I fear that I would become uncompetitive.	Rhodes et.al (2008)

3.4.3 Information Technology Measures

Information technology is the second independent variables in this study. Information technology refers as a key enabler in supporting transformation of knowledge management by capturing, storing, transforming and disseminating information (Syed-Ikhsan-Rowland, 2004). As shown in Table 3.5, information technology were measured by six items using Likert scale of 1-strongly disagree to 5 strongly agree. Rating scale is used to record the response for the instrument.

Table 3.5
Information Technology items

SECTION	OPERATIONAL DEFINITION	ITEMS	SOURCES
C (Information Technology)	Information technology refers as a key enabler in supporting transformation of knowledge management by capturing, storing, transforming and disseminating information (Syed-Ikhsan-Rowland, 2004).	1. My organization is good at using information technology to achieve success. 2. Through IT, the key capabilities of my organization is efficiently integrated. 3. The database in my organization has provided support and improvement to employees skill 4. My superiors are good at using IT to communicate with employees.	Rhodes et.al (2008)
		5. Knowledge about the use of ICT tools can be retained through training session. 6. Ability to use ICT tools is important for knowledge transfer in my organization.	Gururajan and Fink (2010)

3.4.4 Communication Skill Measures

Communication skill is the third independent variables for this study. It can be define as a process of transaction between individual and group in variety platform, which will lead to achieve organizational goal (Brunetto & Farr-Wharton, 2004). As shown in Table 3.6, communication skill were measured by seven items using Likert scale of 1-strongly disagree to 5 strongly agree. Rating scale is used to record the response for the instrument.

Table 3.6
Communication Skill items

SECTION	OPERATIONAL DEFINITION	ITEMS	SOURCES
C (Communication Skill)	A process of transaction between individual and group in variety platform which will lead to achieve organizational goal (Brunetto & Farr-Wharton,2004).	In general, how often do you communicate with the following people on work-related matter? 1. People with same competency. 2. People with another competency / more knowledge / experience. 3. Immediate superior or boss 4. Client (eg: farmere and entrepreneur) 5. Stakeholder (Fas board of director, supplier) 6. Partner agencies (under Ministry of Agriculture and Agro-Based) 7. People you know from the internet / social media	Wasko and Teigland (2009)

3.5 Questionnaire Design

All questionnaires are set in English language. Each participant received a four-page questionnaire including cover letter attachment in this survey. The questionnaires consisted of three sections.

Section A is used to collect demographic data of respondent regarding gender, age group, education, position/grade and years of experiences. Category scale is used to get a single response for each question. This information is necessary to show that the sample is representative and to

ensure that generalization to the wider population of organizations and employees can be made. Section B inquiries about dependent variables, which is about knowledge transfer. Section C inquires about independent variables, which is about trust, information technology and communication skill. Table 3.7 below summarized the content of the questionnaire.

Table 3.7
Questionnaires Design

Section	Number of questions
A: Demographic	5
B: Knowledge transfer (Dependent variable)	7
C: (Independent Variables) i. Trust ii. Information Technology iii. Communication	 6 6 7
Total	**31**

3.6 Pilot Test

Pilot test is carried out to examine the questionnaire used in this research. According to Macnee and McCabe (2008), pilot test is a small-scale study to provide reliability and validity of the instrument and measurement. Pilot test help researcher to improve the questionnaire design through feedback from respondent. Malhotra (2008) suggested that appropriate size of sample usually range 15 to 30 the extension officers as the respondents. In this research, the pilot test took place on the 16th April was implemented among the extension officers at MADA Perlis Regional Office. Thirty (30) sets of questionnaires were distributed during that time and 21 questionnaires are handed down to refine the research questionnaire.

Table 3.8
Pilot Reliability Test (n=21)
Results of the Reliability Test

Variables	No. of Items	Cronbach's Alpha
Knowledge Transfer	7	0.706
Trust	6	0.802
Information Technology	6	0.713
Communication Skill	7	0.758

3.7 Data Collection Procedure

Data collections purposely design short and easy to understand as an effort to maximize the response rate (Edward et.al, 2001). In this study, the questions are clear and in short version for every variables tested. Using quantitative method, this questionnaire can be used to extend and quantify findings gained using qualitative methods (Boynton & Greehalgh, 2004). As for this study, researcher has personally administered and collected the questionnaire, which gives advantages to researcher in terms of high response rate and less time taken to collect the questionnaires.

The actual data collection started after the questionnaire was pilot tested. Formal meeting with MADA Head of Human Resources Department was held on 3rd April 2017 to obtain permission for the study. With the assistance from MADA Training Unit, questions were distributed accordingly starting from 19th April 2017 until 2nd May 2017. Respondents were reassured that information given only be used for research and academic purposes only and will not be revealed.

3.8 Data Analysis Technique

To conduct analysis for this research, Statistical Package for the Social Sciences (SPSS) version 24 for Mac are used for data collection. The raw data gained from the collected questionnaire were tested for data accuracy based on the reliability values. Lastly, data was analyzed through the program and results were computed for correlation and regression.

3.8.1 Reliability Test

Golafshani (2003) stated that reliability and validity test are commonly used in quantitative research. Reliability test is conducted to determine the instrument tested is consistent in measuring a concept. Consistency and stability can be identified to which extent it is free of bias and error.

Table 3.9
Rules of Thumb about Cronbach-Alpha Coefficient Size (*Sekaran and Bougie, 2013)*

Alpha Coefficient Range	Strength of Association
Less than 0.6	Weak
0.6 to < 0.7	Acceptable
More than 0.8	Good

3.8.2 Normality Test

Normality of data is perceived as a fundamental element in a research conducted especially multivariate research as suggested by Hair *et. al.,* (1998). The normality test was aimed to make sure that all data is normal distribution. According to Pallant (2001) normality is used to describe a

symmetrical bell shape curve, which has the greatest frequency of scores in the middle with smaller frequencies towards the extreme.

Hair *et. al.,* (2008) used the normal distribution because it provides the underlying basis by researcher who collect data using sampling and normality can be determined through some extent by obtaining skewness and kurtosis values. The normal distribution is vital since it provides the underlying basis for many inferences by researcher who collects data using sampling. Hence, in this study, the normality test was done in order to ensure the normality of the distribution and checking for outliers. For the purpose of this research, all the variables involved were tested through SPSS in order to ensure there is no violation of normality assumption using a certain procedure laid down under SPSS.

Table 3.10
Assessment of Normality

Variables	Skewness	Kurtosis
Knowledge Transfer	0.483	- 0.627
Trust	0.606	- 0.924
Information Technology	0.472	- 0.853
Communication Skill	-0.364	- 0.469

3.8.3 Frequency Analysis

Frequency analysis is important to measure and analyze the rate of occurrence. The percentage of the occurrences can be obtained through access the profile.

3.8.3 Correlation Analysis

Correlation analysis is a method of statistical evaluation used to study the strength of a relationship between two, numerically measured continuous variables (Cole, 2016). This type of analysis is useful when researcher wants to establish possible connection between two variables. Values for the correlation coefficient are always between -1 and + 1. A correlation coefficient of +1 indicates that two variables are perfectly related in positive linear. Where else a correlation of -1 indicates that two variables are perfectly related in negative linear. However, correlation coefficient of 0 indicates that there is no linear relationship between the two variables. This study was conducted to understand the course of the connection between independent variables that is trust, information technology and communication skill and dependent variables is knowledge transfer by using correlation method analysis.

3.8.4 Multiple Regression

Multiple regressions model is used to test the hypothesis of the research. This technique is often used to validate the relationship between dependent and independent variables. The type of relationship is either positive or negative. Significant value of less than 0.05 determines that the variables are positively linked and greater value of more that 0.05 will show negative relationship between variables. In this study, the reason of performing a multiple regression analysis is to identify the predictive power of the independent variable (trust, information technology and communication skill) towards dependent variables (knowledge transfer). Multiple regressions are using the

p-value for each term tests the null hypothesis that the coefficient is equal to zero (no effect). The null hypothesis can be rejected meaning the hypothesis is significant with low p-value (< 0.05). With other meaning, changes in the predictor's value are related to changes in the dependent variable when a predictor has a low p-value suitable to be significant addition to the research framework. Hypothesis is insignificant if the p-value is larger than significant levels (>0.05 & > 0.01).

3.9 Conclusion

This chapter explains on the methods and action plan for the study. This study is outlined through the sample of respondent's, respondents' selection methods, questionnaire developments, research information and the survey process in collecting data. Finally, this chapter also explains several analysis conducted in this study; reliability test, correlation and regression.

CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter discusses in depth the detail regarding the findings of this study. A reliability test was conducted for pilot test to ensure that the questionnaire is fit to measure the real purpose of the study. Then, the actual questionnaires were distributed to target respondents and collected. The data collected from the questionnaires were transferred into statistical software. As for this study, the analysis was carried out using Statistical Programs for Social Sciences (SPSS) version 24.0. The analyses that were conducted in this study were reliability test, frequency measurement, correlation and multiple regression analyses. At the end of this chapter, it will also clarified whether the hypotheses are accepted or rejected.

4.2 Reliability Test for Dependent and Independent Variables

Reliability test was conducted to examine the consistency of the items in the questionnaire by measuring the concept. It is useful in evaluating the goodness of a measure. Cronbach' coefficient alpha was used to analyse the consistency of the items used. Sekaran and Bougie (2013) proposed that a Cronbach alpha that is closer to 1.0 indicates a higher internal consistency reliability (refer to Table 3.9 in Chapter 3).

As for this study, the reliability test was conducted to examine the questionnaire items for dependent and independent variables. 21 sets of questionnaires' were distributed during the pilot study. The result was as table 4.1.

Table 4.1
Reliability test results for dependent and independent variables.

Variables	No. of Items	Cronbach's Alpha Score
Knowledge Transfer	7	0.706 (Acceptable)
Trust	6	0.802 (Good)
Information Technology	6	0.713 (Acceptable)
Communication	6	0.758 (Acceptable)

Based on the reliability test conducted, the Cronbach's Alpha for knowledge transfer is 0.706. As for trust, the score is 0.802. Meanwhile, the internal consistency for information technology and communication, both score are 0.713 and 0.758 alpha values. Overall, the internal consistency for both dependent and independent variables is within 0.7 to 0.89 which are consider as good and acceptable. Therefore, the items used in the questionnaire are good and acceptable to measure the variables.

4.3 Response Rate

Questionnaires are distributed for the collections of data were discussed in Chapter 3 before. There were 113 questionnaire were distributed among MADA extension officers between April until May 2017. The respondents were given two weeks to answer the questionnaires. A total response of 81 were returned, generating the return rate of 71.68% at the end of the survey. Babbie (2007) stated that return rate of more than 70% is very good.

The returned questionnaires then analysed by computing data in SPSS software. Below showed Table 4.3, represent the summary of respondents' response rate.

Table 4.2
Respondents' Response Rate

MADA Regional Offices	Total Survey Distributed	Total Survey Received	Percentage (%)
Perlis	21	21	18.58
Jitra	37	24	21.24
Pendang	25	16	14.16
Kota Sarang Semut	30	20	17.70
Total	**113**	**81**	**71.68**

4.4 Frequency Measurement for Demographic Items

Using the rate of occurrence, the percentage and cumulative percentage can be calculated the demographic items. There were five (5) items used to collect respondents' demographic data. As shown in Table 4.3, the complete data analysis of the respondents' demographic characteristics has been analyzed. Based on the survey, 70.4% out of 81 respondents are male. Most of the participants' age around 31-40 years old accumulated about 49.4%. As for highest education background, the biggest group came from "Other" education qualification with 54 respondents that carry 66.7%. "Other" is classified as certification received from various institute such as Institut Pertanian Semenanjung Malaysia (IPSM), Institut Kemahiran Belia Negara (IKBN), Institut Kemahiran MARA (IKM), ADTEC and Institut Latihan Perindustrian (ILP). Extension employees' position in grade G29 is the highest response rate (84%). The largest percentage in working experience came from senior employees with more than 8 years experiences with 60.5% (49 respondents).

Table 4.3
Demographic characteristics of the participants (n=81)

No	Characteristics	Items	Frequency	Percentage (%)
1	Gender	Male	57	70.4
		Female	24	29.6
2	Age	21-30	19	23.5
		31-40	40	49.4
		41-50	9	11.1
		More than 50	13	16.0
3.	Level of Education	Diploma	22	27.2
		Degree	4	4.9
		Master	1	1.2
		Others	54	66.7
4.	Position / Grade	27/29	68	84.0
		32	8	9.9
		36/38	3	3.7
		41/44	2	2.5
5.	Working Experience	Less than 2 years	3	3.7
		2-4 years	6	7.4
		5-6 years	8	9.9
		7-8 years	15	18.5
		More than 8 years	49	60.5

4.5 Correlation Analysis

A correlation analysis was conducted in this study to explain the relationship among the variables. Thus, the Pearson correlation analysis will assess the relationship between dependent and independent variables besides the relationship between the variables. The value for Pearson correlation coefficient may vary from -1 to +1. The value +1 is considered the perfect positive correlation meanwhile -1 is negative correlation. As for 0, the value indicates that there is no relationship at all (Pallant, 2013). For significance value (p) that acceptable is either 0.01 or 0.05 (Coakes & Steed, 2007).

Table 4.4
Result of Pearson Correlation Analysis

	Knowledge Transfer	**Trust**	**Information Technology**	**Communication Skill**
Knowledge Transfer	**1**			
Trust	.263*	**1**		
Information Technology	.591**	.672**	**1**	
Communication Skill	.224	.190	.317**	**1**

*. Correlation is significant at the 0.05 level (2-tailed)
**. Correlation is significant at the 0.01 level (2-tailed)

Table 4.4 presents the correlation and significance value between dependent and independent variables. From the result, correlation between knowledge transfer and trust is r = .263 and the significance value for workload is significant at $p<0.05$. Based on the result of correlation coefficient and associated significance value for knowledge transfer, it can be concluded that both variables have strong positive relationship. These results indicate that with strong trust among employees will encourage more knowledge transfer.

For the second independent variable, the result of correlation coefficient between knowledge transfer and information technology is r = .591. The significance value is 0.000 that is also significant at $p<0.01$. It is clearly showed that information technology play an important role in promoting knowledge transfer among the employees. Thus, we can say that information technology have an impact on the knowledge transfer.

Contrast with the above result, independent variables communication skill that the correlation coefficient is .224. From the analysis, the result is not significant because the value is more that p>0.01. It is consider as weak correlation relationship.

In addition to this correlation analysis, the strongest relationship among the independent variables is between trust and information technology with value r = .672 and significance value p<0.000. Besides that, relationship between communication an information technology have a moderately strong relationship with the value r = .317 and significance value is p < 0.01.

4.6 Multiple Regressions Analysis

Besides reliability analysis, frequency measurement and correlation analysis, regression analysis was conducted to identify the further influence between independent variables (trust, information technology and communication skill) with knowledge transfer (dependent variable). The value of β for each hypothesized relationship is observed and reported in this section. Meanwhile, R^2 was obtain in order to indicate the percentage of variance in the dependent variable that can be explain from independent variables analyses.

Based from the result showed below, the value for R^2 in regression analysis is .618. After converting the R^2 value into percentage, the value is 61.8%. The percentage 61.8% of the variance of knowledge transfer can be explained by

all independent variables (trust, information technology and communication skill). The remaining percentage 38.2% is explained by other variables.

Table 4.5
Result of Multiple Regression

Dependent Variables (Knowledge transfer)	**Unstandardized Coefficients**		**Standardized Coefficients**		**Sig**
	β	**Std. Error**	**Beta**	**t**	
(Constant)	9.077	3.417		2.657	.010
Trust	-.242	.143	-.243	-1.692	.096
Information Technology	1.001	.200	.750	4.998	.000
Communication Skill	.007	.079	.011	.093	0.93
F value	11.300				
R^2	.618[a]				
Adjusted *R* Square	.348				

Table 4.5 also showed the output of independent variable. Information technology is the only independent variable statistically significant to predict knowledge transfers with interval level not more than 0.01. In contrast, another two independent variables which is trust and communication skill are not statistically significant to influence knowledge transfer as the value are more than 0.05 at interval level.

Besides that, the highest β coefficient score is information technology with value 1.001 followed by trust with the value 0.007. It can be concluded that the most influencing independent variable towards knowledge transfer is information technology. Thus, the hypothesis H2 are supported while hypothesis H1 and H3 is not supported.

In summary, the analysis techniques used in this study such as multiple regressions have able to answer the research objectives and proposed hypotheses. Table 4.6 presents the summary of the hypotheses testing.

Table 4.6
Reliability test results for dependent and independent variables.

Hypotheses	Statement	Findings
H1	There is significant relationship between trust and knowledge transfer	Rejected
H2	There is significant relationship between information technology and knowledge transfer.	Accepted
H3	There is significant relationship between communication skill and knowledge transfer	Rejected

4.7 Conclusion

This chapter describes the reliability test, demographic characteristic of the 81 respondents, the result of the correlations and regression analyses. The research hypotheses were considered tested based on those above-mentioned analyses. The result indicate that trust and information technology have positively related on knowledge transfer.

The results also imply to information technology play significant relationship towards knowledge transfer. In other words, those who apply information technology in disseminating information and knowledge will encourage knowledge transfer.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the findings of the study according to the literature review on knowledge transfer and the hypotheses developed in Chapter 2. The study also reported the elaboration and extends prior research on work engagement in this thesis. The findings, as presented in Chapter 4, are discussed in the sections below. There are several implication and limitation can be drawn from the study.

5.2 Summary of the Research

The main purpose of this study is to examine the influence between trusts, information technology, communication skill and knowledge transfer in MADA. This study also interested in analysing how trust, information technology and communication skill can improve extension services among the extension officers which in turn improve their engagement with the farmers in MADA.

Multiple regression analysis was concluded to test hypotheses and the findings revealed that only information technology was positively significant related to knowledge transfer. Where else trust and communication skill were not significant towards knowledge transfer.

5.3 Trust, Information Technology, Communication Skills and Knowledge Transfer

5.3.1 Objective 1: To examine the influence of trust on knowledge transfer

Results from the present study indicate that trust is not significantly related towards knowledge transfer. This finding is not in line with the previous studies as mentioned earlier in Chapter 2. However, study that was done by Islam et.al (2015) involving public sector employees in Brunei concluded that trust has insignificant relationship with knowledge transfer. The similarity of this study with Islam et.al(2015) were both studies conducted in public sectors and Malaysia and Brunei were in the same context of Southeast Asia countries which share the same culture. Besides that, Casimir, Lee and Loon (2012) findings also resulted in non-significant correlation affective trust. Moreover, findings by Sandhu and Goh (2013) also supported this study as trust was found to be the lowest influence. This result is similar with result from Kim and Ju (2008) whereby trust is insignificant towards knowledge sharing.

Antonacopoulou and Guttel (2010) in their research found that relationship between trust and knowledge transfer is moderated by organizational socialization and organization culture which is portrayed by employees' behavioural outcomes. Thus, organization socialization and culture gives impact towards relationship between trust and knowledge transfer.

One of the possible explanation for these result is that majority of the respondents in this study are from entry level position/grade 29 (84%). Liebowitz and Chen (2003) identify that employee's feel insecure to share knowledge and trust among them, as it will jeopardize their chance to secure position in upper rank in organization. Hence, it is important for the organizations to instil and nurture trust as an organization culture.

5.3.2 Objective 2: To analyse the influence of information technology on knowledge transfer

In this study, employees which use information technology in their daily routine work contribute towards knowledge transfer in organization. This finding is consistent with the previous studies (Ives et.al 2003; Syed-Ikhsan and Rowland, 2004; Rhodes et.al 2008; Zaidi et.al, 2016). The research question is answered that information technology has an influence with knowledge transfer. Information technology diversifies knowledge dissemination through current application such as email, video conferencing, sharing video/audio and upload and download information across the world.

Based on the demographic result, age group 31-40 is the major group, which represents 49.4% followed by age group 21-30 (23.5%). According to McNichols (2008), Gen X is more open to technology and Bozavli (2016) supported previous findings that Gen X onwards is easily adapted towards latest technology. Thus, this finding also shows that younger employees (Gen X and Y as well) are more open to the current technology. The results enlighten that this group of respondents prefer to apply and utilize the latest

technology work related (information technology) in their routine tasks, which will influence knowledge transfer in MADA.

5.3.3 Objective 3: To investigate the influence of communication skill on knowledge transfer

From the result obtained, communication is not significantly correlated with knowledge transfer. This finding is supported by research done by Islam *et.al* (2015) which identify there is no influence of communication skill on knowledge transfer. Since communication skill indicated insignificant relationship between knowledge transfer, organization should focus on improving internal communication. Internal communication has two main roles, which is creating a sense of community in organization and information provision (Karanges et.al, 2015). It would be wonderful if public sector organization can proposed a proper communication system to support partnership working by having engagement session with employees to solve issues and share knowledge. Besides that, management should also provide a more relaxing platform such as Coffee Session where employees could communicate each other frequently and solved problem related to the successful transfer of knowledge.

Hence, the possible explanation as regard to this result is the current communication channel and practices in MADA are well conducted and organized. The farmers received very clear information and likewise the extension officers disseminate and transfer the relevant information to the farmers using the right channel.

5.4 Research Implications

5.4.1 Theoretical Implication

The current findings have presented the current description of professional functions and data collection of data on knowledge transfer in several ways. Firstly, findings from this study have given empirical evidence that proven there are significant correlation among information technology and knowledge transfer.

Past studies also shows that there are limited studies that focus on public sector especially in Malaysia setting in term of knowledge transfer. The theoretical part of this study is to provide and encourage transferring new direction of the study.

5.4.2 Practical Implication

There are several implications for the management of MADA based on the current research findings. The outcomes specify that the use of information technology does influence knowledge transfer in MADA. While as for trust and communication skill, even though it does not reflect knowledge transfer as much as information technology, management should not left it behind. Base on the finding and information gather from this study, hopefully it will enlighten MADA towards the quality of knowledge transfer among the employees.

It is crucial for organization to understand knowledge transfer barrier among employees. The result of the study showed that information technology has a strong influence towards the success of knowledge transfer and undoubtedly influencing the process of knowledge transfer. Therefore, organization should consider to expand information technology through developing application that can be used to store data and accessible anywhere at any time.

5.5 Limitation and Direction for Future Research

There are limitations in the design of this study that might influence the interpretation and generalization of these findings. These issues are discussed below.

The study was aimed at understanding the influence of trust, information technology and communication skill in agricultural extension services. But the study was conducted on selected organization. First, this study was conducted in MADA only because of time constraint. As for future direction of the study, the research can be expanded to the rest of government agencies that provides extension services to the farmers such as Farmers Organizations Authority Malaysia, Department of Agriculture (DOA), Department of Veterinary (DOV) and Malaysian Agricultural Research and Development Institute (MARDI) and other agencies. Further studies can also be extending by making comparative study among the department to compare their knowledge transfer practices.

Secondly, independent variables tested in this study were limited to trust, information technology and communication skill. Other situational factor that beyond the scope of this study such as organization culture, organizational socialization and attitudes was not included in this study. This can provides another direction for future research.

In short, based on the specified investigation of the research there must be some constraint related with the method used in this study. Both researchers and practitioner must be interested in the results of this study to provide useful findings for future references.

5.6 Conclusion

The objective of this study is to investigate the influence of trust, information technology and communication in knowledge transfer among extension officers in MADA. Based on the findings, information technology has significant relationship toward knowledge transfer meanwhile trust and communication do not shows any significant results towards the dependent variables.

Based on the current findings through this study, it makes an important contribution towards knowledge transfer especially in public sectors regarding knowledge transfer. It is important for the management to understand the important of knowledge management in organization. Organization that embraces in knowledge management will remain competitive and sustain in the industries, as knowledge transfer is one of

powerful medium to disseminate knowledge. To summarize, we could suggest organizations to pay more attention to current problem, providing often meetings with employees where they could discuss current situation, to show trusting relationships to them and to pay attention toward employees' thought and ideas. Thus, it is believed that these findings could help organizations specifically MADA to improve knowledge transfer in an effective way that could obtain more profits and become more competitive.

References:

Agwu, A. E., Uche-Mba, U. C., & Akinnagbe, O. M. (2008). Use of information communication technologies (ICTs) among researchers, extension workers and farmers in Abia and Enugu states: Implications for a National Agricultural Extension Policy on ICTs. *Journal of Agricultural Extension*, *12*(1).

Agus, A., Barker, S., & Kandampully, J. (2007). An exploratory study of service quality in the Malaysian public service sector. *International Journal of Quality & Reliability Management*, *24*(2), 177-190.

Alavi, M. & Leidner, D.E (2001). Review: knowledge management and knowledge management system, conceptual foundation and research issues. *MIS Quaterly, Vol.25*

Andreasian, G., & Andreasian, M. (2013). Knowledge Sharing and Knowledge Transfer Barriers. A Case Study.

Antonacopoulou, E.P., & Guttel, W.H (2010). Staff induction practices and organizational socialization. *Society and Business Review, 5 (1)*

Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational behavior and human decision processes*, *82*(1), 150-169.

Argote, L., Ingram, P., Levine, J. M., & Moreland, R. L. (2000). Knowledge transfer in organizations: Learning from the experience of others. *Organizational behavior and human decision processes*, *82*(1), 1-8.

Bohner, G., & Dickel, N. (2011). Attitudes and attitude change. *Annual review of psychology*, *62*, 391-417.

Bozavli, E. (2016). Understanding of Foreign Language Learning of Generation Y.

Brunetto, Y. & Farr-Wharton, R. (2004). Does the talk affect your decision to walk? A Comparative pilot study examining the effect of communication practices on employee commitment post-managerialism. *Management Decision 42(3/4).*

Casimir, G., Lee, K., & Loon, M. (2012). Knowledge sharing: influences of trust, commitment and cost. *Journal of knowledge management*, *16*(5), 740-753.

Chang, Y. Y., Gong, Y., & Peng, M. W. (2012). Expatriate knowledge transfer, subsidiary absorptive capacity, and subsidiary performance. *Academy of Management Journal*, *55*(4), 927-948.

Choy Chong, S., Salleh, K., Noh Syed Ahmad, S., & Syed Omar Sharifuddin, S. I. (2011). KM implementation in a public sector accounting organization: an empirical investigation. *Journal of Knowledge Management*, *15*(3), 497-512.

Coakes, S.J., & Steed, L.G. (2007). SPSS: Analysis without anguish: Version 14.0 for Windows. *Milton, Qld: John Wiley & Sons Australia.*

Creswell, W.J. (2009). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. *London: Sage.*

Davenport, T.H and Prusak, L. (2000). Working knowledge : how organizations manage what they know. *Harvard Business School Press. Boston*.

Due, J.M., Megayane, F. & Temu, A. A (1997). Views of female agricultural extension officers by smallholder farmer in Tanzania. *World Development, 25(5)*

Duan, Y., Nie, W., & Coakes, E. (2010). Identifying key factors affecting transnational knowledge transfer. *Information & management*, *47*(7), 356-363.

Frank, A. G., Ribeiro, J. L. D., & Echeveste, M. E. (2015). Factors influencing knowledge transfer between NPD teams: a taxonomic analysis based on a sociotechnical approach. *R&D Management*, *45*(1), 1-22.

Fenwick, L., Endicott, M., Quinn, M., & Humphrey, S. (2014). Supporting the Transference of Knowledge about Language within Teacher Education Programs. *Australian Journal of Teacher Education*, *39*(11), n11.

Goh, S.C. (2002). Managing effective knowledge transfer: an integrative framework and some practice implication. *Journal of Knowledge Management. Vol 6.*

Goh, S. K., & Sandhu, M. S. (2013). Knowledge sharing among Malaysian academics: Influence of affective commitment and trust. *The Electronic Journal of Knowledge Management*, *11*(1), 38-48.

Gururajan, V., & Fink, D. (2010). Attitudes towards knowledge transfer in an environment to perform. *Journal of knowledge Management*, *14*(6), 828-840.

Handzic, M. (2011). Integrated socio-technical knowledge management model: An empirical evaluation. *Journal of Knowledge Management, 15 (2),198-211*

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207-219). Upper Saddle River, NJ: Prentice Hall.

Islam, Z. M., Hasan, I., & Rahman, M. H. (2015). Factors Affecting Knowledge Transfer in Public Organization Employees.

Ismail, M. B., & Yusof, Z. M. (2010). The impact of individual factors on knowledge sharing quality. *Journal of Organizational Knowledge Management*, *13*.

Iyengar, K., Sweeney, J. R., & Montealegre, R. (2015). Information technology use as a learning mechanism: The impact of IT use on knowledge transfer effectiveness, absorptive capacity, and franchisee performance. *Mis Quarterly*, *39*(3), 615-641.

Jacob, M. & Ebrahimpur, G. (2011). Experience vs expertise: the role of implicit understanding of knowledge in determining the nature of knowledge transfer in two companies. *Journal of Intellectual Capital, Vol.2 No.1.*

Jadin, T., Gnambs, T., & Batinic, B. (2013). Personality traits and knowledge sharing in online communities. *Computers in Human Behavior*, *29*(1), 210-216.

Johari, J., & Nazir, E. N. M. (2015). Elevating organizational commitment through corporate culture: a case of public service agencies in Malaysia. *Jurnal Pengurusan*, *43*, 37-46.

Kamaruddin, R., Ali, J., & Saad, N. M. (2013). Happiness and its influencing factors among paddy farmers in Granary Area of Mada. *World Applied Sciences Journal*, *28*(EFMO)), 91-99.

Karanges, E., Johnston, K., Beatson, A., & Lings, I. (2015). The influence of internal communication on employee engagement: A pilot study. *Public Relations Review*, *41*(1), 129-131.

Kim, S. and Ju, B. (2008). Analysis of faculty perceptions: Attitudes towards knowledge sharing and collaboration in an academic institution. *Library & Information Science Research. Vol.30*

Knapp, E.M. (1998), Knowledge management, *Business and Economic Review*, July-September.

Kumar, N., Rose, R.C, & Muien, N.F.A (2009). The influences of absorptive capacity and social capital on knowledge transfer. The Journal of Applied Business Research, 25(4),99.

Kuschminder, K., Sturge, G., & Ragab, N. (2014). *Contributions and Barriers to Knowledge Transfer: The Experience of Returning Experts*.

Li, L. (2005). The effects of trust and shared vision on inward knowledge transfer in subsidiaries' intra-and inter-organizational relationships. *International Business Review*, *14*(1), 77-95.

Liyanage, C., Elhag, T., Ballal, T., & Li, Q. (2009). Knowledge communication and translation–a knowledge transfer model. *Journal of Knowledge management*, *13*(3), 118-131.

Lwoga, E.T., Stilwell, C. & Ngubule, P. (2011). Access and use of agricultural information and knowledge in Tanzania.

Maunder, A. (1973), Agricultural Extension: A Reference Manual, *1st edition, Food and Agricultural Organization (F.A.O), Rome.*

Major, E. and Cordey Hayes, M. (2002). Knowledge translation: a new perspectives on knowledge transfer and foresight". *Foresight, Vol. 2.*

McNichols, D. (2010). Optimal knowledge transfer methods: a Generation X perspective. *Journal of Knowledge Management*, *14*(1), 24-37.

Migdadi, M.M (2009). A knowledge –centered culture as an antecedent of effective knowledge management at information technology centers in Jordanian universities. *Journal Of System And Information Technolog*y, 11(2),89-116

Minbaeva, D. B. (2005). HRM practices and MNC knowledge transfer. *Personnel review*, *34*(1), 125-144.

Motowidlo, S. J. (2003). Job performance. *Handbook of psychology*.

MZ, R., & Amriah, B. (2012). Impact of Rice Straw Development Towards Agricultural Environment and Farmers' Socio-Economy in MADA Region, Kedah.

Nordin, S. M., Noor, S. M., & bin Md Saad, M. S. (2014). Innovation Diffusion of New Technologies in the Malaysian Paddy Fertilizer Industry. *Procedia-Social and Behavioral Sciences*, *109*, 768-778.

Ragasa, C., Berhane, G., Tadesse, F., & Taffesse, A. S. (2013). Gender differences in access to extension services and agricultural productivity. *The Journal of Agricultural Education and Extension*, *19*(5), 437-468.

Rhodes, J., Hung, R., Lok, P., Ya-Hui Lien, B., & Wu, C. M. (2008). Factors influencing organizational knowledge transfer: implication for corporate performance. *Journal of knowledge management*, *12*(3), 84-100.

Robinson, L (2003) . Committed to quality: the use of scheme in UK public leisure services. Managing Service Quality, VO NO. 113

Rogers, E.M. (2003), Diffusion of Innovations, *5th ed., Free Press, New York, NY.*

Omar Sharifuddin Syed-Ikhsan, S., & Rowland, F. (2004). Knowledge management in a public organization: a study on the relationship between organizational elements and the performance of knowledge transfer. *Journal of knowledge management*, *8*(2), 95-111.

Polanyi, M. (1966). The tacit dimension. *Doubleday Anchor, Garden City. NY.*

Pallant, J. (2013). SPSS survival manual: A step by step guide to data analysis using IBM SPSS. *Maidenhead, Berkshire: McGraw Hill.*

Politis, J.D. (2003). The connection between trust and knowledge management; what are its implication for team performance. *Journal Of Knowledge Management*, Vol.7

Qamar, M.K. (2005), Modernizing National Agricultural Extension Systems: A Practical Guide for Policy – *Makers of Developing Countries*, F.A.O, Rome.

Razak, M. I. M., Hamzah, A. S. M. A., Abas, N., Idris, R., & Ibrahim, Z. (2013) Sustaining Food Production for Food Security in Malaysia. *Journal of Economics and Development Studies, Vol. 1 No. 2*

Sanga, C., Kalungwizi, V.J. & Msuya, C.P. (2013). Building an agricultural extension services system supported by ICTs in Tanzania: progress made, challenges remain. *International Journal Of Education And Development Using Information And Communication Technology* (IJEDICT) Vol. 9, Issue 1, pp. 80-99.

Salleh, K., Chong, S. C., Ahmad, S. N. S., & Ikhsan, S. O. S. S. (2012). Learning and knowledge transfer performance among public sector accountants: an empirical survey. *Knowledge Management Research & Practice*, *10*(2), 164-174.

Salleh, K. M., Sulaiman, N. L., & Talib, K. N. (2010, November). Globalisation's impact on soft skills demand in the Malaysian workforce and organisations: What makes graduates employable. In *Proceedings of the 1 st UPI International Conference on Technical and Vocational Education and Training*.

Seba, I. Rowley, J. & Delbridge, R. (2012). Knowledge sharing in the Dubai Police Force. *Journal Of Knowledge Management,* 16(1)

Sekaran, U. (2003). *Research methods for business: A skill-building approach.* New York: John Wiley & Sons

Sekaran, U., & Bougie, R. (2013). *Research methods for business (6th ed).* United Kingdom: John Wiley & Sons Ltd.

Sankowska, A. (2016). Trust, knowledge creation and mediating effects of knowledge transfer processes. *Journal of Economics & Management*, *23*, 33.

Siddique, N.A. 2006. Public management reforms in Malaysia. *International Journal of Public Sector Management Journal* 19(4).

Singh Sandhu, M., Kishore Jain, K., & Umi Kalthom bte Ahmad, I. (2011). Knowledge sharing among public sector employees: evidence from Malaysia. *International Journal of Public Sector Management*, *24*(3), 206-226.

Sousa, F., Nicolay, G., & Home, R. (2016). Information technologies as a tool for agricultural extension and farmer-to-farmer exchange: Mobile-phone video use in Mali and Burkina Faso. *International Journal of Education and Development using Information and Communication Technology*, *12*(3), 19.

Suebsom, K. (2015). Measuring Knowledge Transfer through Facebook of Higher Education Classroom. *International Journal of Information and Education Technology*, *5*(6), 437.

Sun, R., Lin, C. P., Wu, T. J., & Bao, H. P. (2016). The impact of community incentives and user-enterprise communication on knowledge transfer performance of enterprise. *Journal of Discrete Mathematical Sciences and Cryptography*, *19*(4), 887-909.

Stringfellow, R., Coulter, Lucey, T., McKone, C. & Hussain, A. (1997). Improving the access of smallholder to agricultural services in sub-saharan Africa: Farmer cooperation and the role of the donor community. *Natural Resources Perspectives 20, Overseas Development Institute.*

Swanson, B., B.J. Farmer, and R.Bahal. (1990). The current status of agricultural extension worldwide. *Report of the Global Consultation on Agricultural Extension Food and Agriculture Organization of the United Nations (FAO).*

Tangaraja, G., Mohd Rasdi, R., Ismail, M., & Abu Samah, B. (2015). Fostering knowledge sharing behaviour among public sector managers: a proposed model for the Malaysian public service. *Journal of Knowledge Management*, *19*(1), 121-140.

Teigland, R., & Wasko, M. (2009). Knowledge transfer in MNCs: Examining how intrinsic motivations and knowledge sourcing impact individual centrality and performance. *Journal of International management*, *15*(1), 15-31.

Terry, B. D., & Osborne, E. (2015). Fundamental Dimensions and Essential Elements of Exemplary Local Extension Units. *Journal of Agricultural Education*, *56*(2), 43-63.

Teo, T. S., & Bhattacherjee, A. (2014). Knowledge transfer and utilization in IT outsourcing partnerships: A preliminary model of antecedents and outcomes. *Information & Management*, *51*(2), 177-186.

Turner, K. and Makhija, M. (2006). The role of organizational controls in managing knowledge. *Academy of Management Review*, Vol. 31

Uguru, C., Ajayi, S. L., & Ogbu, O. C. (2015). Strategies for Dealing with Low Adoption of Agricultural Innovations: A Case Study of Farmers in Udenu LGA of Enugu State, Nigeria. *Journal of Education and Practice*, *6*(34), 7-12.

Wang, D. (2015). Activating cross-border brokerage: Interorganizational knowledge transfer through skilled return migration. *Administrative Science Quarterly*, *60*(1), 133-176.

Wende, E., Schwabe, G., Philip, T. and King, G. (2013). Why they do not understand - A model of knowledge discourse in the transition phase of globally distributed projects. *Proceedings of the 46th Annual Hawaii International Conference on System Sciences (HICSS). Hawaii.*

Wok, S., & Hashim, J. (2013). Communicating and sharing working relationships with older employees. *Journal of Communication Management*, *17*(2), 100-121.

Zaidi, M. A., Baharuddin, M. N., Bahardin, N. F., Yasin, M. F. M., Hamid, M. Y., & Nawi, M. N. M. (2016). An Assessment of Knowledge Transfer Practices for Malaysian Construction Firm. *International Review of Management and Marketing*, *6*(7S).

APPENDICES

APPENDIX A

Questionnaires

Questionnaire

The Influence of Trust, Information Technology and Communication Skill on Knowledge Transfer in MADA (Muda Agricultural Development Authority)

Dear Sir/Madam,

I am a Master of Human Resources Management (MHRM) student from Universiti Utara Malaysia. This is a research I am conducting regarding the title above to fulfil my academic requirement for the final year's course. Thus, I would like to attain your kindness to fulfil this questionnaire. The questionnaire is divided into three (3) sections; A, B and C. I would be grateful if you could spend 5-7 minutes to complete the questionnaire. I assure you that your responses will be held in confidential and would only be used for the mean of this research.

Thank you for your cooperation.

Tuan/Puan,

Saya merupakan pelajar Sarjana Pengurusan Sumber Manusia (MHRM) dari Universiti Utara Malaysia. Saya kini sedang menjalankan kajian berkenaan tajuk seperti di atas untuk memenuhi syarat keperluan akademik bagi kursus tahun akhir. Justeru itu, saya ingin memohon jasa baik tuan/puan untuk mengisi boring soal selidik ini. Borang ini terdiri daripada tiga (3) bahagian iaitu bahagian A, B dan C. Saya amat berbesar hati sekiranya tuan/puan sudi meluangkan masa 5-7 minit untuk melengkapkan boring soal selidik ini. Segala maklumat yang pihak tuan/puan berikan akan dianggap sulit dan digunakan hanya untuk tujuan kajian sahaja. Segala kerjasama tuan/puan dalam membantu kajian ini saya dahului dengan ucapan terima kasih.

Sharifah Nur Alia binti Syed Mansor (820083)
Master in Human Resource Management
Othman Yeop Abdullah Graduate School of Business, UUM

SECTION A (DEMOGRAPHIC)

Please tick ☑ the relevant boxes.

1) **GENDER**

☐ Male ☐ Female

2) **AGE GROUP**

☐ 21-30 ☐ 41 - 50

☐ 31-40 ☐ More than 51 years old

3) **LEVEL OF EDUCATION**

☐ Master ☐ Diploma

☐ First Degree ☐ Others

4) **POSITION GRADE**

☐ 27/29 ☐ 36 / 38

☐ 32 ☐ 41 / 44

5) **WORKING EXPERIENCE**

☐ Less than 2 years ☐ 7-8 years

☐ 2-4 years ☐ More than 8 years

☐ 5-6 years

SECTION B (KNOWLEDGE TRANSFER)

For each statement below, please circle the number that is the truest to you

		Strongly Disgree	***Disagree***	***Uncertain***	***Agree***	***Strongly Agree***
1	Organization saves and renews important information onto the computer for easy and faster browsing.	1	2	3	4	5
2	Knowledge is categorized in the database for use by all employees.	1	2	3	4	5
3	Organization saves important information through report and pictures in the computer.	1	2	3	4	5
4	Employees use e-mail or internal network (eg.GOE EGDMS) to share knowledge with others.	1	2	3	4	5
5	Employees are willing to share experiences and knowledge with others.	1	2	3	4	5
6	Organization transfer employee experience to other employees.	1	2	3	4	5
7	Organization transfer effective knowledge to employees through training courses, presentation and internal magazine / bulletin.	1	2	3	4	5

SECTION C (FACTORS INFLUENCING)

For each statement below, please circle the number that is the truest to you

i. Trust

		Strongly Disgree	***Disagree***	***Uncertain***	***Agree***	***Strongly Agree***
1	Organization appreciates employee's contribution and effort.	1	2	3	4	5
2	Superior / senior leader support employees when suggesting alternative perspectives.	1	2	3	4	5
3	Organization encourages employees to learn and tolerate employees' mistakes.	1	2	3	4	5
4	Superior / senior leader of my department trusts employees' capability.	1	2	3	4	5
5	The atmosphere in my organization helps employee to trust each other.	1	2	3	4	5
6	I feel a risk to transfer and share knowledge because I fear that I would become uncompetitive.	1	2	3	4	5

SECTION C (FACTORS INFLUENCING)

For each statement below, please circle the number that is the truest to you

ii. Technology

		Strongly Disgree	*Disagree*	*Uncertain*	*Agree*	*Strongly Agree*
1	Our organization is good at using information technology to achieve success.	1	2	3	4	5
2	Through IT, the key capabilities of our organization is efficiently integrated.	1	2	3	4	5
3	The database in organization has provided support and improvement to employees skill	1	2	3	4	5
4	Superior are good at using IT to communicate with employees	1	2	3	4	5
5	Knowledge about the use of ICT tools can be retained through training session.	1	2	3	4	5
6	Ability to use ICT tools is important for knowledge transfer.	1	2	3	4	5

iii. Communication Skill

For each statement below, please circle the number that is the truest to you

In general, how often do you communicate with the following people on work-related matter?

		Never	*Rarely*	*Once in a While*	*Sometimes*	*Almost Always*
1	People with same competency.	1	2	3	4	5
2	People with another competency / more knowledge / experience.	1	2	3	4	5
3	Immediate superior or boss	1	2	3	4	5
4	Client (eg: farmere and entrepreneur)	1	2	3	4	5
5	Stakeholder (FAs board of director, supplier)	1	2	3	4	5
6	Partner agencies (under Ministry of Agriculture and Agro-Based)	1	2	3	4	5
7	People you know from the internet / social media	1	2	3	4	5