

AN IMPROVEMENT OF KNOWLEDGE SHARING PRACTICE AMONG  
EMPLOYEES AT SELANGOR AND WILAYAH PERSEKUTUAN STATE  
OFFICE MCMC

KATIRAWAAN A/L RAJADRAN

UNIVERSITI TEKNOLOGI MALAYSIA

AN IMPROVEMENT OF KNOWLEDGE SHARING PRACTICE AMONG  
EMPLOYEES AT SELANGOR AND WILAYAH PERSEKUTUAN STATE  
OFFICE MCMC

KATIRAWAAN A/L RAJADRAN

A project report submitted in partial fulfillment of the requirement for the award of  
the degree of Master of Business Administration

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Universiti Teknologi Malaysia

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## **DEDICATION**

Every difficult task necessitates both self-effort and the guidance of elders, particularly those close to our hearts. My humble effort is dedicated to my loving parents, wife, family and team members whose support and prayers enable me to continue this journey.

Along with all of the hardworking and respected lecturers, particularly my supervisor, without whose unending support, guidance, knowledge shared, and motivation, this entire journey would not be possible.

To everyone who shone brightly on this journey,

This study is dedicated to you.

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All glory to God and His blessings on the successful completion of this research project. I am grateful to God for all of the opportunities, trials, and strength He has bestowed upon me to complete this write-up.

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## ABSTRACT

This study focuses on improving knowledge sharing practice among employees in Selangor and Wilayah Persekutuan State Office, Malaysian Communications and Multimedia Commission (MCMC). The employees may unintentionally unaware of the knowledge sharing culture due to the inexistence of a suitable platform to execute the activity. There are three objectives in this study: To identify contributing factors that influence knowledge sharing practice among employees; To implement the most suitable technology solution, and To measure the effectiveness of the solution. In this study, the influencing factors of knowledge sharing behaviour among employees are investigated with reference to theories such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), SECI Model and Knowledge Sharing Model. This research employed the Theory of Reasoned Action as the basic framework of the research design to investigate the individual motivation factors and technological solution towards knowledge-sharing practice. The research employed a mixed-method approach, incorporating both qualitative and quantitative techniques. Qualitative data were gathered through an interview session involving two personnel, and the data were analysed using NVIVO. For quantitative analysis, pre-and post-intervention survey questionnaires were distributed to 15 personnel to ascertain their level of motivation, knowledge, and practice. Data were analysed using SPSS for descriptive analysis and to measure the efficacy. It was discovered that one of the factors contributing to the issue is a lack of technological tools to facilitate the practice of knowledge sharing. The analysis of pre-and post-intervention data reveals an increase in the occurrence of knowledge sharing practices. The study demonstrates the critical role of technology in motivating employees to engage in knowledge sharing practices. The intervention confirmed that technological support was the right solution in improving knowledge sharing practises in Selangor and the State Office of Wilayah Persekutuan MCMC.

**Keywords:** Knowledge Sharing, Motivation, Knowledge, Practice, Technology

## ABSTRAK

Kajian ini memberi tumpuan kepada peningkatan amalan perkongsian pengetahuan di kalangan kakitangan di Pejabat Negeri Selangor dan Wilayah Persekutuan, Suruhanjaya Komunikasi dan Multimedia Malaysia (SKMM). Kakitangan jabatan mungkin secara tidak sengaja tidak menyedari budaya perkongsian pengetahuan kerana tidak adanya platform yang sesuai untuk melaksanakan aktiviti tersebut. Terdapat tiga objektif dalam kajian ini: Untuk mengenal pasti faktor penyumbang yang mempengaruhi amalan perkongsian pengetahuan di kalangan pekerja; Untuk melaksanakan penyelesaian teknologi yang paling sesuai; dan Untuk mengukur keberkesanan penyelesaian teknologi tersebut. Dalam kajian ini, faktor-faktor yang mempengaruhi tingkah laku perkongsian pengetahuan di kalangan pekerja disiasat dengan merujuk kepada teori seperti Teori Tindakan Beralasan (TRA), Model Penerimaan Teknologi (TAM), Model SECI dan Model Perkongsian Pengetahuan. Penyelidikan ini menggunakan Teori Tindakan Beralasan sebagai kerangka asas reka bentuk penyelidikan untuk menyiasat faktor motivasi individu dan penyelesaian teknologi terhadap amalan perkongsian pengetahuan. Penyelidikan menggunakan pendekatan kaedah campuran, menggabungkan teknik kualitatif dan kuantitatif. Data kualitatif dikumpulkan melalui sesi wawancara yang melibatkan dua personel, dan data dianalisis menggunakan NVIVO. Untuk analisis kuantitatif, soal selidik tinjauan sebelum dan sesudah intervensi diedarkan kepada 15 orang pegawai untuk memastikan tahap motivasi, pengetahuan, dan latihan mereka. Data dianalisis menggunakan SPSS untuk analisis deskriptif dan untuk mengukur keberkesananannya. Diketahui bahawa salah satu faktor yang menyumbang kepada masalah ini adalah kekurangan sokongan platform teknologi untuk memudahkan praktik perkongsian pengetahuan. Analisis data sebelum dan selepas intervensi menunjukkan peningkatan berlakunya amalan perkongsian pengetahuan. Kajian ini menunjukkan peranan penting teknologi dalam memotivasi pekerja untuk terlibat dalam amalan perkongsian pengetahuan. Intervensi ini mengesahkan bahawa sokongan teknologi adalah penyelesaian yang tepat dalam meningkatkan amalan perkongsian pengetahuan.

**Kata Kunci:** Perkongsian Pengetahuan, Motivasi, Pengetahuan, Amalan, Teknologi

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## LIST OF ABBREVIATIONS

HOD	-	Head of Department
HOU	-	Head of Unit
ICT	-	Information and Communication Technology
KM	-	Knowledge Management
KS	-	Knowledge Sharing
MCMC	-	Malaysian Communications and Multimedia Commission
MKP	-	Motivation, Knowledge and Practice
SECI	-	Socialization, Externalization, Combination and Internalization
SWOT	-	Strength, Weakness, Opportunity and Threats
SWPSO	-	Selangor and Wilayah Persekutuan State Office
TAM	-	Technology Acceptance Model
TRA	-	Theory of Reasoned Action
UTM	-	University Technology Malaysia

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This research focuses on improving knowledge sharing practice at Selangor & Wilayah Persekutuan State Office (SWPSO) in Malaysian Communications and Multimedia Commission (MCMC).

The Malaysian Communications and Multimedia Commission (MCMC) is a statutory body formed under the Malaysian Communications and Multimedia Commission Act 1998 (MCMCA) to execute and promote the Government's national communications and multimedia policy goals. MCMC supervises and promotes the communications and multimedia industries, including telecommunications, broadcasting, internet activities, postal services, and digital certification.

The Selangor & Wilayah Persekutuan State Office is a state department of MCMC responsible for enforcing federal and state policy and engaging with stakeholders on communications and multimedia sector development and regulations. With the vision of establishing a competitive, efficient, and increasingly automated communications and multimedia industry capable of generating growth to meet Malaysia's economic and social needs, the department strives to accomplish this mission through a dedicated team with limited state-level resources.

This chapter will discuss the organisation's background, the problematic occurrences that arise inside the organization, the research questions and objectives, the researcher's role, ethics, the theoretical and practical significance of the proposed study, and term definitions.



## 1.2 Case Company Introduction



Figure 1 MCMC Logo

Malaysian Communications and Multimedia Commission (MCMC) is a statutory body formed under the Malaysian Communications and Multimedia Commission Act 1998 (MCMCA) to execute and promote the Government's national communications and multimedia policy goals. The MCMC has played a vital role in ensuring that organizational operations align with Malaysia's national policy initiatives and objectives for the past 22 years.

MCMC currently has five sectors, 23 divisions, and 89 departments, including 14 state offices across Malaysia. The following are the organizational distributions of MCMC headquarter and state offices, as stated in Table 1.1:

Table 1. 1 MCMC and State Offices

No.	MCMC Offices	Total Staff
1	Headquarter, Cyberjaya	649
2	Penang State Office	16
3	Kedah and Perlis State Office	8
4	Perak State Office	5
5	Selangor State Office	10
6	Wilayah Persekutuan State Office	7
7	Pahang State Office	16
8	Kelantan State Office	6
9	Terengganu State Office	7

10	Johor State Office	15
11	Melaka State Office	5
12	Negeri Sembilan State Office	5
13	Sabah State Office	28
14	Sarawak State Office	29

Each state office consists of a State Director who is responsible for four central units: the Management, Service, and Advocacy Unit (MSAU), the Infrastructure Development Unit (IDU), the Resource Management and Monitoring Unit (RMM), and the Regulatory Compliance Unit (RCU). Deputy Directors serve as Heads of Unit for these four units. The organisational structure of the State Office can be seen in Figure 2.

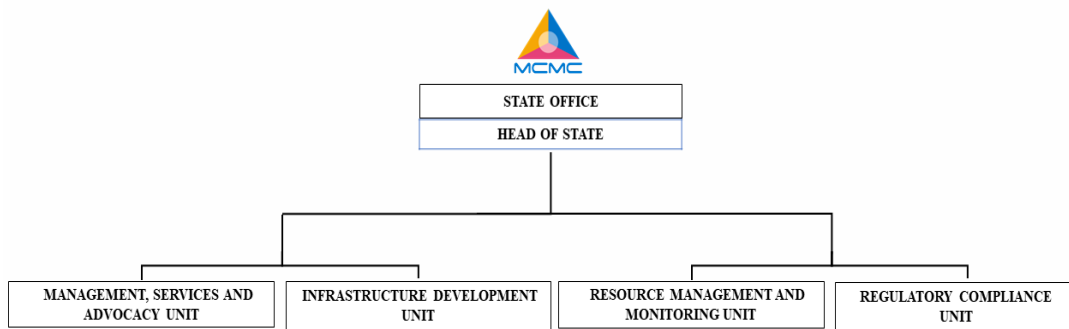


Figure 2 MCMC State Office Organization Chart

SWPSO began operations in 2006 in Shah Alam as a Central Regional Office covering Selangor, Negeri Sembilan, Wilayah Persekutuan Kuala Lumpur, and Putrajaya. However, as part of a recent restructuring in 2019, the region offices became state offices, enabling MCMC to maintain a physical presence in each state nationwide. Previously known as the Central Regional Office, before rebrand as the Selangor State Office and Wilayah Persekutuan State Office.

The operation of this department, which currently has a total workforce strength of 17 employees, remains busy throughout the year. This is due to a lack of

workforce to cover operational stability and complete ad-hoc tasks as directed by headquarter.

### 1.2.1 SWOT Analysis

The SWOT analysis in Table 1.2 was conducted in this chapter to understand better the department's strengths and weaknesses in light of potential opportunities and threats.

Table 1. 2 The SWOT Analysis

<b>STRENGTH</b>	<b>WEAKNESS</b>
<ul style="list-style-type: none"> <li>- Specialist in respective field at the state office</li> <li>- The availability of technology infra and support</li> <li>- Availability of the technology specialist in SWPSO</li> </ul>	<ul style="list-style-type: none"> <li>- Staffs minimally exposed to available technology tools to aid in daily work practice.</li> <li>- The department’s technology tools and facilities still not fully utilized.</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>- The advancement of technology</li> <li>- The support system from the upper management</li> </ul>	<ul style="list-style-type: none"> <li>- Limited staff resources and increase in workload</li> <li>- COVID-19 pandemic affecting the work norm</li> </ul>

The department's strength can be seen in the number of specialists serving in respective portfolios for more than 5 years in the respective field. This specialist is the backbone of the state operations and has established a strong foundation with state stakeholders. The next strength is the availability of various technology tools and infrastructure. The other strength associated with the issue is the availability of Technology Specialists (Ts.). The Ts. knowledge and technique can be transferred to SWPSO personnel, enabling the technology solution procedure to be completed successfully without the involvement of a subject matter expert.

The issue's weakness is that the staff is only minimally exposed to the department's available technology tools and facilities. This is because daily work requires the team to concentrate on operational tasks and not explore developmental

aspects that would facilitate their day-to-day work execution. This results in another significant weakness: the majority of available technology tools and facilities are underutilized.

The advancement of current technology is a factor that is related to the issue in terms of opportunities. In today's digital era, various open source tools can be easily adapted at no cost to the employer. These tools are vital instruments for resolving technologically solvable issues. Other opportunities related to the problem can be seen in terms of upper management support for workplace innovation, which is critical in supporting the State Transformation Plan introduced in 2020.

Alternatively, the limited staff resource and increased workload pose a threat because a small number of staff with a large workload will cause difficulties for the personnel to manage the time available to engage in the practice. Additionally, the ongoing pandemic impacts the usual working norm. Employees are still attempting to adjust, as working hours are not limited to 8 hours a day but are much longer. Fortunately, the department's strengths in terms of technology and specialist availability can help mitigate both of the threat issues mentioned above. The SWOT analysis identifies the issue's challenging circumstance, which must be explored further. Thus, conducting this study serves as a first step toward resolving any problems that may occur in connection with the subject.

### **1.3 Problem Statement**

Malaysian government agencies are predominantly renowned for their knowledge-intensive nature. The concept of knowledge management was initially advanced in 1991 by Malaysia's former Prime Minister, Tun Dr Mahathir Mohamad. He emphasized the importance of transforming the economy into a knowledge-based economy (Mahathir, 1991). The Prime Minister of Malaysia stated in his 'Vision 2020' (Wawasan 2020) address that "in our goal of building the K-economy, knowledge must substitute capital and labour as the primary forces of production in our economy." Malaysia's challenge is to spread this knowledge among its citizens so that our success is a result of Malaysian talents and knowledge workers" (Mahathir 2001).

Malaysia's government agencies need to devise strategies for knowledge sharing to implement effective knowledge sharing approaches. Given their role, adequate knowledge sharing initiatives are likely to benefit government agencies. However, many researchers have tried to address the benefit and significant part of knowledge plays in private sector organizations, such as improving and improving organizational performance (Skyrme, 2003).

Despite broad discussion of knowledge management by a large number of scholars, government agencies have comparatively limited data and empirical studies on knowledge-sharing efforts. In public administration, studies have been conducted on the effect of organisational factors on knowledge management performance (Monavvarian and Kasaei, 2007), knowledge management benchmarking (Syed-Ikhsan and Rowland, 2004a), benchmarking competence through knowledge management capability (Al-Athari and Zairi, 2001), knowledge management initiatives (Shields et al., 2000), and knowledge management initiatives (Shields et al., 2000). (Wiig, 2002). Numerous knowledge management systems have failed to encourage knowledge sharing. Additionally, several government entities have been slow in implementing knowledge management. Simultaneously, Malaysia's government agencies are unaware of the potential benefits of knowledge management (Othman, M and Egbu, CO,2009). KS is not an organization's preliminary strategy in the public sector. Simultaneously, KM is heavily embedded in the private sector, particularly in terms of knowledge exchange and management. It has evolved into an integral element of the organization's strategic plan, with management accountable for key performance metrics.

In the current MCMC State Transformation plan, which was outlined as the MCMC State Office's main agenda since Q3 2020, state departments are becoming increasingly necessary for information to be used to achieve competitive advantages and function effectively. Employees' knowledge and skills should be increased with national and organizational objectives and performance to provide better services and contribute to a more competitive, sustainable nation. And this involvement is, of course, crucial for MCMC, which is closely linked to federal and state stakeholders, to support improved service provision. The activity to share knowledge is not actively

encouraged, promoted and practised in SWPSO. With the minimal staff at the state office, the team must multitask in performing other unit job functions when there is a lack of workforce, especially when receiving ad-hoc project or crisis time. Most staff isn't aware of this function and operation of other units within the same department. This knowledge gap that occurs between teams has been a crucial issue that has been identified in SWPSO. This is due to the lack of a proper strategy to address this issue.

Therefore, this paper aims to identify the factor that influences knowledge sharing practice and implement effective solutions that can further improve the knowledge sharing practice in SWPSO as part of the state transformation agenda.

### 1.3.1 Problem Diagnosis

With the help of the Fishbone (Ishikawa) Diagram, it has been possible to diagnose further the problem identified in SWPSO, which lacks knowledge sharing practices. Suárez and Rodríguez (2019) created this diagram to represent the causes of the specific effects under investigation. Suárez and Rodríguez (2019) describe how it allows possible causes of a problem to be broken down into essential elements and how it directs a problem-solver to possible causes of the problem.

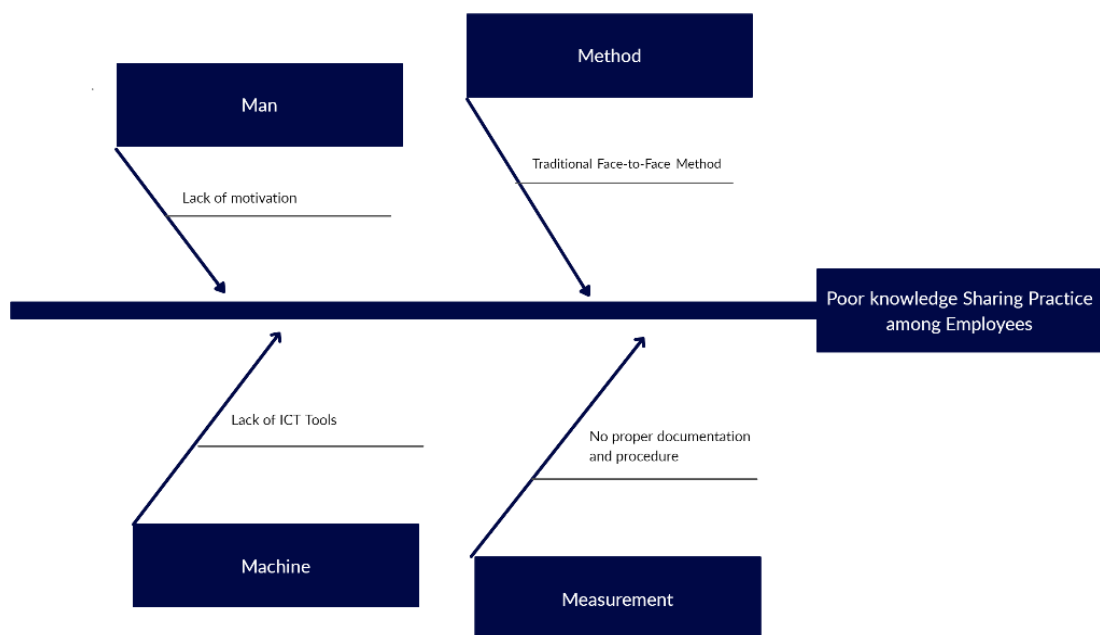


Figure 3 The Fishbone diagram

According to the Fishbone diagram in Figure 3, the problem that SWPSO is facing is a lack of knowledge sharing practices. The possible causes of this problem fall under four essential elements: man, method, machine and measurement. For the Man element, the lack of knowledge sharing practices is attributed to employees' lack of interest and motivation to participate in such activities voluntarily. Individual factors are undeniably the primary reason that KS is not practised.

Additionally, in the Method element, the traditional method of face-to-face knowledge sharing is a significant factor in the lack of knowledge sharing practices among staff. There is no proper documentation, procedure, or policy in place to address this issue. Before the Covid-19 pandemic, this practice occurred monthly once during the internal department physical meeting on an instruction basis; however, this practice is not consistent each month. Since the pandemic began in March 2020, the work-from-home arrangement has compelled most employees to continue their daily work routines from home, with fewer department meetings taking place during this time. Over the online meeting platform, only a brief discussion focused on the arising issues will be held. There has been no practice of knowledge sharing during this pandemic, and the necessity and importance of this practice have been disregarded over time.

This point under the Machine/Tools element is valid as a contributing factor to the absence of knowledge sharing practices. Workplace digitalization is a continuous process that is being implemented across the organization. However, specific techniques have not been transformed or addressed because they are deemed less critical than operational tasks. No appropriate tools or platforms have been introduced to utilize the available resources for this practice effectively.

For the Measurement element, the reason for the lack of knowledge sharing practices is that they are less fruitful and unable to garner sufficient attention from practitioners due to the lack of a proper reporting system to track their participation and assessment performance review. The tendency for practices to be less visible exists, resulting in a lack of interest and a lack of priority, as the Head of Department lacks the appropriate tool for assessing the practice's implementation among staff in the respective department.

### 1.3.2 Theoretical Gaps

Any research conducted should contribute to the advancement of knowledge in the sector or industry in which it is performed. The findings or results should influence the industry and be relevant outside the scope of the research.



Figure 4 Tree map topic on knowledge sharing practice according to Web of Science categories

According to Figure 4, search on the Web Science website using the keywords knowledge sharing practice, technology, and motivation, 90 records were located. Still, the majority of this research focuses on the factor of knowledge sharing practice. The majority of the records are irrelevant and unrelated to this study. As a result, future researchers will better understand factors related to a lack of knowledge sharing practice and relevant approaches to implementing proper knowledge sharing practice to improve KS practice while increasing staff motivation to perform the activity.



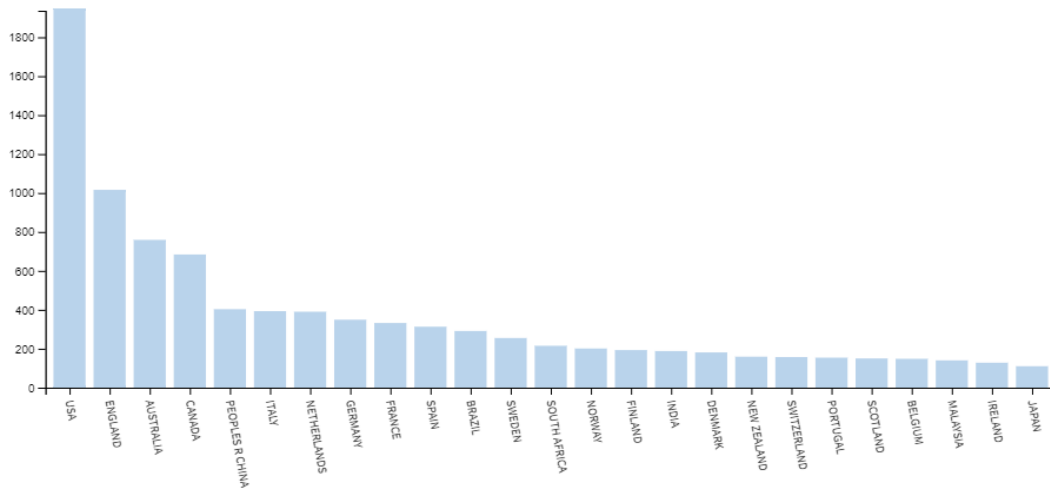


Figure 5 The bar graph analysis of knowledge sharing practice according to country from Web of Science

According to the Web of Science search in Figure 5, the United States, England, China, Italy, and Australia have the most research publications. China is one of the tops among Asian countries that have contributed to the current research field. Malaysia does not appear on the top of the list, demonstrating the significance of our country's contribution to this subject. There has yet to be a publication from University Technology Malaysia, according to the search results.

### 1.3.3 Practical Gaps

The research attempts to provide an effective solution to the lack of knowledge sharing practices among SWPSO. This study outlines the steps involved in identifying the problem, implementing the intervention, and assessing the intervention's influence on the issue. The significance of the research in identifying the gap in knowledge sharing activities and strategically resolving it through technology solution intervention improves staff motivation to enable knowledge sharing practices. The study emphasizes the challenges that were encountered during the intervention. The MCMC State Office believes that this action research will be valuable and helpful in addressing knowledge sharing challenges.

## **1.4 Research Questions**

Following the development of the problem statement, the research questions were considered an active step in this study. It is essential to direct the study's flow, indicate what to look for, and establish a clear purpose. The following are the study's research questions:

### Research Question 1:

What is the factor that influences knowledge sharing practice among employees at Selangor and Wilayah Persekutuan State Office, MCMC?

### Research Question 2:

Which technology solutions suitable to be implemented to improve knowledge sharing practice and employees' motivation?

### Research Question 3:

Does technology solution implementation improves the knowledge sharing practice and employees' motivation?

## **1.5 Research Objective**

The development of research questions is intertwined with the research's objective. The research objectives should be feasible, evident, and provable, as they contribute directly to answering the research questions. As a result, the objectives of this research include the following:

### Research Objective 1:

To identify contributing factors that influence knowledge sharing practice among employees at Selangor and Wilayah Persekutuan State Office, MCMC.

### Research Objective 2:

To implement the most suitable and effective technology solution to improve knowledge sharing practice and employee motivation.

### Research Objective 3:

To measure the effectiveness of the solution on improving the knowledge sharing practice and employees' motivation.

## **1.6 Researcher's Role**

Transformative change is required for a researcher to produce effective study results while simultaneously conducting research. This action research project can benefit the organization or department by assisting management in improving organizational practices. The researcher plays a vital role in managing the state office and advocacy field in this study. The researcher's responsibility as a member of the organization's workforce is to conduct this study to address the problem. The researcher is responsible for explaining the procedure, collecting data, and suggesting implementation strategies to increase awareness and improve knowledge sharing practices within the department. The researcher desired to make a positive impact on the department and organization.

## **1.7 Research Ethics**

The study adhered to the ethical standards outlined in the Malaysian Communications and Multimedia Commission Act 1998. The research entails using readily available technology tools and does not indicate an increase in the organization's operating costs. All records and data must be kept confidential and may be used exclusively for this study. All reasonable measures are made to ensure the confidentiality of data. Before conducting the research, permission was acquired from

the State Offices of Selangor and Wilayah Persekutuan Heads of Department. Authors are obligated to follow and comply with any relevant regulations, such as those issued by a regulatory body.

## **1.8 Significance of the Research**

The planned action research is essential for enhancing the organization's performance. The problem's analysis and in-depth information can be examined further by conducting research and implementing changes that benefit the department and organization.

### **1.8.1 Significance to Theory**

The knowledge-sharing practice is a crucial management issue globally, and it is one of the primary issues for people participating or functioning in management. The subjects should be further investigated in the future because they benefit the organization as a whole. Additional research involving larger establishments with more employees should be conducted to close the gap. This is significant because a study including many organizations and employees can yield accurate results regarding the amount of knowledge sharing awareness and practice among employees. Apart from that, the research can be undertaken from various perspectives, including assessing its employees' culture and strategies to prevent it. Thus, selecting a research topic is crucial since it can help the organization while also contributing to the field of theory.

### **1.8.2 Significance to Practice**

This study will reawaken the interest of Malaysian scholars and the MCMC State Department throughout Malaysia in using the findings of this study to do more

research on the topic of information sharing practises among employees. All researchers and organisations in Malaysia may utilise the findings of this study to reorganise their strategies in order to address and improve the issue of information sharing among employees. This research will provide a suitable course of action to demonstrate how knowledge sharing practises among employees contribute to an organization's success. Academics can utilise this report to further investigate the topic of knowledge sharing practises among Malaysian government organisations. Additionally, all Malaysian researchers may take systematic efforts to improve their knowledge sharing practises in order to increase staff engagement through enhanced technical assistance.

### **1.9 Definition of Terms**

The terminology section, in which the study's key or significant terms are defined in detail, is an essential component of the research paper or report. Authors may use abstract concepts to demonstrate the meanings of terms to explain the terminology used in this study.

#### **Knowledge**

Nonaka (1994, p. 21) defined knowledge as justified belief. Knorr-Cetina (1980:11) contends that knowledge is any knowledge one has gained, as well as the activities one has engaged in obtaining that knowledge. The combination of rules, procedures, and information constitutes knowledge (Marakas, 1999, P. 5). Thus, understanding and practical know-how are all forms of knowledge. This kind of knowledge has to do with data, facts, or views.

#### **Knowledge sharing**

Knowledge sharing occurs when employees freely exchange knowledge on data or procedures related to the organization's area of activity, whether directly with peers or by contributing data to the organization's database (Azarbayjani, 2007). Knowledge sharing is an action driven by an individual's voluntary willingness to share

his or her knowledge (Goh and Sandhu, 2013).

### **Technology/Information and Communication Technology (ICT) factor**

In the context of knowledge sharing, technology/ICT may be used to enhance the processes involved. The importance of ICT in knowledge sharing can only be fully recognised when it is connected to motivation for knowledge sharing rather than simply to maintenance aspects such as removing obstacles. (1999, Hendriks).

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