

Faculty of Cognitive Sciences and Human Development

The Impact of Learning Organization Dimensions and Readiness to Change with Moderating Roles of Knowledge Sharing

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Doctor of Philosophy
2024

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Nicholas Balawing Anak Ibas

A thesis submitted

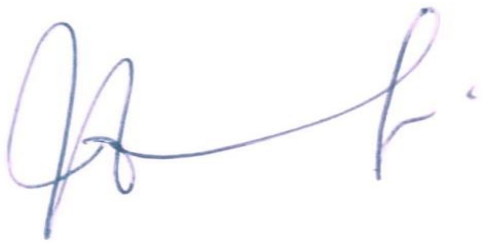
In fulfilment of the requirements for the degree of Doctor of Philosophy

(Human Resource Development)

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
2024

DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.



……

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Date : 19/9/2024

ACKNOWLEDGEMENT

First and foremost, a thank you to my family and most especially my wife Lucy Anak Dana and my four children, Virgillianno Nglai, Giovanni Ginda, Vennardrick Bantin, and Genevieve Rinya, for their unconditional love and for being pillars of strength and foundation of support, which have been the greatest of gifts. This dissertation is dedicated to those who have always been a source of inspiration. My heartfelt thanks to you for believing in me, cheering me on when I most needed it, and for being my rock in all my endeavors.

This Ph.D journey is very challenging. It tests the mental and physical limits of a student. As such, I also would like to dedicate this study to my parents, Ibas Anak Ulak and Catherine Samie Anak Nglai, who have guided me throughout my life. As a person who came from a longhouse and a low-income family, their support, guidance, and dedication to strongly emphasized the importance of education has made me able to cultured a lifelong learning passion in my personal attitude and subsequently became a ladder to achieve this Ph.D.

Lastly, I would like to express my sincerest and deepest gratitude to my supervisors, Dr. Ida Julina Hutasuhut and Professor Dr. Rusli Ahmad. Without their guidance and advice, this thesis would be impossible to finish, and I might not see “the light at the end of the tunnel” of this thesis journey. Finally, I would like to thank everyone who, in any way, big or small, has helped me along this journey. Thank you!

ABSTRACT

The ability of government departments to adapt to current needs and requirements is crucial, and it depends on their ability to learn and share knowledge. To investigate this relationship, a quantitative study was conducted among more than 20 government departments in Sarawak, Malaysia. The study targeted 347 federal civil servants in Kuching and Kota Samarahan to determine whether learning organizations are associated with readiness to change and whether knowledge sharing plays a moderating role. The study found that learning organizations increase the readiness to change among civil servants, but knowledge sharing plays an opposite role in moderating this relationship. The study's data was analyzed using PLS-SEM4 and SPSS Version 29. Future research should investigate the role of other variables such as AI as moderators, and similar research should be conducted in other federal government departments in Sarawak, Sarawak state government agencies, local authorities, and Government-Linked Companies (GLCs).

Keywords: Learning organization, readiness to change, knowledge sharing, civil servants

Kesan Dimensi Organisasi Pembelajaran dan Kesediaan Untuk Berubah dengan peranan penyederhanaan Perkongsian Pengetahuan

ABSTRAK

Keupayaan jabatan kerajaan untuk menyesuaikan diri dengan keperluan dan keperluan semasa adalah penting, dan ia bergantung kepada keupayaan mereka untuk belajar dan berkongsi pengetahuan. Untuk menyiasat hubungan ini, satu kajian kuantitatif telah dijalankan di kalangan lebih 20 jabatan kerajaan di Sarawak, Malaysia. Kajian itu menyasarkan 347 penjawat awam persekutuan di Kuching dan Kota Samarahan untuk menentukan sama ada organisasi pembelajaran dikaitkan dengan kesediaan untuk berubah dan sama ada perkongsian pengetahuan memainkan peranan penyederhana. Kajian mendapati organisasi pembelajaran meningkatkan kesediaan untuk berubah dalam kalangan penjawat awam, tetapi perkongsian ilmu memainkan peranan sebaliknya dalam menyederhanakan hubungan ini. Data kajian dianalisis menggunakan PLS-SEM4 dan SPSS Versi 29. Penyelidikan masa depan harus menyiasat peranan pembolehubah lain seperti AI sebagai moderator, dan penyelidikan serupa perlu dijalankan di jabatan kerajaan persekutuan lain di Sarawak, agensi kerajaan negeri Sarawak, pihak berkuasa tempatan , dan Syarikat Berkaitan Kerajaan (GLC).

Kata kunci: *Organisasi pembelajaran, kesediaan untuk berubah, perkongsian pengetahuan, penjawat awam, jabatan kerajaan persekutuan*

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LIST OF ABBREVIATIONS

LO	Learning organization
DLOQ	Dimensions of learning organization
RFC	Readiness to change
KS	Knowledge sharing
P&P	Professional & Management
SS	Supporting staff
SPM	*Sijil Pelajaran Malaysia*
STPM	*Sijil Tinggi Pelajaran Malaysia*
MCE	Malaysia Education Certificate

CHAPTER 1

INTRODUCTION

1.1 Introduction

This study examines the relationship between learning organization and readiness to change, and knowledge sharing moderating. This chapter focus on several important aspect of the introduction of this study such as research background, problem statements, research questions, the study's significance, research objectives, scope and limitations of the study, and terms, concepts, and definitions. This chapter is important because it provides a comprehensive overview of the related important aspect of the research in the study area and the issue that justifies this research.

1.2 Research Background

The world has undergone and witnessed massive changes from the industrial revolution to the present-day technological advancements. This continuous change has forced all parties to adapt together. The ability to adapt is a must, not an option. All parties, whether individually, industry players, or government, should be ready to accept it. Failure to adapt can cause them to stagnate in society. As the Greek philosophy said, "Change is the only constant in life" has proven to be true for individuals, organizations, and society as a whole (Tan et al., 2022).

Several factors contribute to the change, and one of the most important is the advancement of technology (Soomro et. al., 2021; Alolabi et al., 2021). In recent years, the extraordinary emergence of communication technologies such as social media has revolutionized the way humans communicate, work, socialize, and interact with the world.

These technological innovations have brought unlimited capabilities and potential, making them game-changers in various fields, including delivering government services to the public.

Public sector organizations are faced with multifaceted challenges arising from shifting socio-economic, political, and technological landscapes. The concept of readiness to change reflects an organization's willingness and capability to embrace and implement transformative initiatives. In the public sector, where responsiveness to serve citizen needs is paramount, understanding readiness to change becomes a cornerstone of effective governance.

However, the Government Effectiveness Index by theglobaleconomy.com reported a downward trend in the effectiveness index of public services in Malaysia, according to their 2023 findings (refer to Figure 1.1). This trend is based on data from 2019-2021 and captures perceptions of the quality of public services, civil service independence from political pressures, quality of policy implementation, and the government's credibility (https://www.theglobaleconomy.com/Malaysia/wb_government_effectiveness/). This trend is concerning as it creates a negative perception of government departments and the Malaysian government in general. The government is now ranked 36th in the world, far behind regional countries such as Singapore, ranked 1 and Brunei, ranked 18 (Figure 1.2).

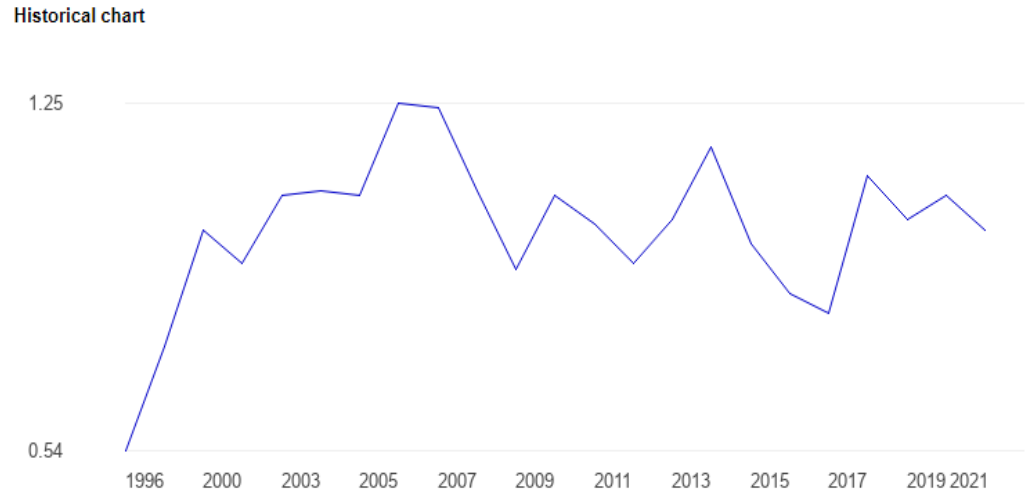


Figure 1.1: The government effective index for Malaysia (Source: World Bank as published in website of theglobaleconomy.com, 2023)

Countries	Government effectiveness, 2021	Global rank	Available data
Singapore	2.29	1	1996 - 2021
Switzerland	2.03	2	1996 - 2021
Denmark	2	3	1996 - 2021
Finland	1.96	4	1996 - 2021
Norway	1.84	5	1996 - 2021
Andorra	1.82	6	1996 - 2021
Netherlands	1.77	7	1996 - 2021
Luxembourg	1.72	8	1996 - 2021
Sweden	1.65	9	1996 - 2021
Iceland	1.64	10	1996 - 2021
Canada	1.6	11	1996 - 2021
Austria	1.57	12	1996 - 2021
Bermuda	1.54	13	1996 - 2021
Hong Kong	1.53	14	1996 - 2021
Australia	1.51	15	1996 - 2021
Liechtenstein	1.51	16	1996 - 2021
Ireland	1.5	17	1996 - 2021
Brunei	1.45	18	1996 - 2021
South Korea	1.41	19	1996 - 2021
Japan	1.4	20	1996 - 2021
UA Emirates	1.4	21	1996 - 2021
Estonia	1.38	22	1996 - 2021
New Zealand	1.35	23	1996 - 2021
USA	1.34	24	1996 - 2021
Germany	1.33	25	1996 - 2021
Israel	1.29	26	1996 - 2021
UK	1.28	27	1996 - 2021
France	1.27	28	1996 - 2021
Slovenia	1.18	29	1996 - 2021
Aruba	1.13	30	2004 - 2021
Belgium	1.13	31	1996 - 2021
Macao	1.13	32	1996 - 2021
Czechia	1.11	33	1996 - 2021
Qatar	1.11	34	1996 - 2021
Lithuania	1.06	35	1996 - 2021
Malaysia	0.99	36	1996 - 2021
Portugal	0.99	37	1996 - 2021

Figure 1.2: Malaysia global ranking for the government effective index (Source: World Bank as published in website of theglobaleconomy.com, 2023)

To address this, the government needs to adopt more creative, innovative, and effective service delivery methods, such as using modern communication technology. By doing so, the government service delivery system can improve its effectiveness, which will directly affect how the public perceives the government and its departments. This notion was supported by Tan Sri Mohd Khairul Adib Abd Rahman, the former Director-General of Public Service Malaysia during the 2021 Director-General of Public Service Mandate Ceremony, emphasized the need for civil servants to increase their online public service. With the public becoming increasingly IT-savvy, a digital government that fully utilizes modern technology to provide fast, cost-effective services, save time and energy, require fewer human resources, increase consumer satisfaction, and boost confidence in the people.

Today, more than ever, government departments are under pressure to find the latest and most appropriate service delivery methods to provide a fast, efficient, convenient, and effective government delivery platform. The government is constantly exploring ways to leverage new technologies to improve the quality of services provided to citizens and make them more accessible and attainable. New communication technologies have enabled the government to streamline its operations, reduce costs, and increase transparency and accountability, making it easier for citizens to access and benefit from government services.

The need for this change is evident during the outbreak of the COVID-19 pandemic that has hit the world since 2020 (Roemer, Sutton & Medvedev, 2021). At that time, government departments in Malaysia were not exempt and were forced to change to a situation that had never happened before and was expected. For example, schools have

introduced a learning system from home, government officials are forced to work from home, and the business transaction system is online. The similarity is that all work or transactions are online based on communication technology.

The question is not only the need to adapt to this technological change but also, what is more important, the extent of change readiness to the technological boom among government departments and civil servants? This is because change is inevitable, but change readiness is subjective and different among civil servants. Change readiness is very critical since it is a factor that will determine the extent of commitment, effort, and responsibility of government departments and civil servants in implementing and accepting change. It is very significant because it will directly impact the image of the existing government and its department in the eyes of the general public or the people on the quality of the government's service delivery system. Furthermore, it is critical because it can directly affect the people's perception in general, which impacts other factors such as the government's support in future general and state elections.

Recent research on change readiness has shown a strong correlation with technological change. According to Soomro, Hizam-Hanafiah, Abdullah, and Jusoh (2021) and Alolabi, Ayupp, and Dwaikat (2021), organizational readiness to change is largely influenced by technology. As technology continues to advance, government departments must be prepared to adapt. The government departments' openness to embrace technological advancements can lead to numerous benefits. One such advantage is the ability to adjust to the present circumstances. A recent study conducted by Tan (2020) in the local context has highlighted that civil servants' willingness to embrace change has contributed to their better adaptability.

Change readiness is believed to be influenced by other factors, such as learning organizations. A learning organization refers to an entity that is able to continuously learn from experience and apply the knowledge gained to actions to improve performance and results. It is a concept first introduced by Peter Senge in his book The Fifth Discipline. A learning organization is not only about providing learning opportunities to individuals in the organization but also about changing the culture and structure of the organization to promote systematic and continuous learning.

Learning organizations are important to modern organizations because they increase adaptability, innovation, and efficiency. In a rapidly changing environment, organizations that can learn quickly and adapt will have a competitive advantage. Learning organizations also help maintain organizational knowledge and expertise, prevent routinism, and promote a positive learning culture. There are several main learning organization models and one of them is from Watkins and Marsick (1993, 1996) and viewed as one that has the capacity to integrate people and structures in order to move toward continuous learning and change. There are seven interrelated dimensions that are important for continuous growth and learning in an organization according to Watkins and Marsick (1993, 1996). The dimensions are continuous learning, inquiry and dialogue, team learning, empowerment, embedded systems, system connectivity, and strategic leadership. Each dimension mentioned plays an important role in fostering a learning organization that is able to adapt and thrive continuously.

In the context of government departments, learning organization plays an important role in preparing the organization for rapid changes. By adopting a learning culture centered on problem solving, government departments can improve their ability to

formulate and implement more effective policies. Collaborative learning also strengthens relationships between government departments and agencies, enabling the exchange of knowledge and best practices. In addition, individual empowerment through the development of individual and group learning encourages employees to be actively involved in the change process. Through this approach, government departments become more adaptive and responsive and continue to grow according to community needs and changes in the political and social landscape.

In the rapidly evolving landscape of the public sector, the ability of organizations to adapt to change and foster a culture of continuous learning is essential for their sustained effectiveness and relevance. The intricate relationship between readiness to change and the development of learning organizations is a critical area of study, and the moderating influence of knowledge sharing adds a layer of complexity to this dynamic.

Learning organization is essential to organizations' adaptation process to remain relevant to current needs and the practice of learning organization can be further strengthened with knowledge sharing (Van den Hooff et. al., 2017; Maqbool & Tayyeb, 2018; Amayah & Gunasekaran, 2018; Chen et al., 2019). However, recent studies that try to unravel these three variables' relationships are challenging to find. Therefore, this study tries to answer gaps.

Furthermore, given the fast-paced nature of our world today, it is crucial that an up-to-date understanding of this relationship. Such a study would enable to better comprehend the manner in which a government department's learning can impact their preparedness to deal with changes and challenges in their environment. By identifying the relationship, it

can help departments to create a more effective learning environment that promotes flexibility, innovation, and growth among others.

Despite the growing literature on change readiness and learning organizations, there is still a need to explore the relationship between these concepts within the unique context of the Malaysian public sector. The addition of knowledge sharing as a moderator adds complexity, making it a crucial area of focus. Addressing this research gap is essential to help public sector leaders, policymakers, and practitioners develop strategies that can enhance organizational adaptability and learning capacity.

1.3 Problem Statement

The Government Effectiveness Index of Malaysia, reported by the World Bank in theglobaleconomy.com (2023), has shown a worrying decline. This decline may be due to various factors, one of which could be the failure to embrace and adapt to readiness to change especially to technological advancements such as in communication.

In the public sector, the success of change initiatives is closely linked to the readiness of civil servants. Metwally, Ruiz-Palomino, Metwally, and Gartzia (2019) argue that resistance among civil servants, mainly when they are not ready for change, can impede the success of public sector change initiatives. It becomes especially crucial in the public sector, where the success of change initiatives is often hindered by factors such as resource constraints, trust issues, project management challenges, technology implementation problems, poor communication, lack of change management skills, and abandonment (Burnes, 2004; Candido & Santos, 2008; Adhiatma et al., 2022).

The rise of modern communication technologies, such as internet-based networks, has revolutionized traditional communication methods. To tackle this challenge, it is crucial to introduce factors such as learning organization within government departments. Previous research has indicated a positive relationship between learning organization and readiness to change (Samad 2009: Kamaruddin, 2009; Haque, 2008; Tan, 2020). However, these studies were conducted before the advent of modern communication technologies and did not consider essential moderator variables like knowledge sharing. In this study, the moderator variable was chosen instead of the mediator to examine how the strength or direction of the IV-DV relationship changes across levels of a third variable. (Carriere, Ditto, & Sullivan, 2016). Therefore, there is a need to explore how these factors influence readiness to change, particularly within the context of contemporary communication technologies.

Most studies in this area have mainly used quantitative methodologies (Al-Tahitah et al., 2020; Olamilekan & Salam, 2022; Tan, 2020), focusing primarily on single organizational structures. However, there is a gap in research that includes diverse organizational structures within government departments in Malaysia. Such research is essential for understanding differences and comparing findings across local and international contexts. The results of such research are critical in improving the quality and standard of public service delivery to citizens, thereby maintaining public trust and satisfaction with the national public service system.

Empirical studies on the relationship between learning organization and change readiness have mainly focused on foreign contexts, and other potential moderators were rarely considered when studying the relationship between learning organization and

readiness to change (Al-Tahitah et al., 2020; Olamilekan & Salam, 2022). Thus, there is a gap in local contextual understanding within Malaysia. Furthermore, existing research often isolates variables for study rather than investigating the comprehensive interplay between them. Additionally, studies in Malaysia have mainly focused on private organizations, neglecting the unique challenges and dynamics present within public service entities. The specific mechanisms through which learning organization influences readiness to change have also been largely overlooked, necessitating further exploration.

As a conclusion, although readiness to change is high in the use of modern communication technology abroad, this finding cannot be directly applied to the Malaysian context. Studies that assess the factors that influence readiness to change in the local context, especially in the Malaysian public sector, are very important (Ahmad et al., 2019; Abdul Rahman et al., 2020). Additionally, there is a need for more recent research into perceptions of learning organizations among local government departments. Although several studies have been done to evaluate this perception, recent studies are needed to study more deeply about organizational learning as well as how organizational factors affect the perception. The same is the case with knowledge sharing. According to recent research, knowledge sharing among employees is a topic that yields mixed results (Kang & Kim, 2020). Therefore, the latest research is needed to get the latest insights and findings. Overall, recent studies related to readiness to change, learning organizations, and knowledge sharing in the Malaysian context are still limited. This shows that there is a great opportunity for more profound and comprehensive research in this area. These studies will provide better insight into how to improve organizational readiness, learning culture, and knowledge sharing among Malaysian government departments. This will, in

turn, help improve the effectiveness and efficiency of public organizations in facing current challenges and capitalizing on new opportunities.

Conducted in Sarawak, this study is expected to make a significant contribution to our understanding of the change readiness among public service employees in Malaysia. The results of this study are expected to assist management and policymakers in planning more effective initiatives and strategies to increase readiness to change, further increasing effectiveness and efficiency in the maintenance of public services.

1.4 The Study Objectives, Research Questions and Research Hypotheses

In this section, the study objectives, research questions and research hypotheses are presented below.

1.4.1 General Objective

This study general objective is to examine the relationship between learning organization and readiness to change moderated by knowledge sharing.

1.4.2 Specific Objectives

The study's specific objectives are to:

i. To determine the perceived level of learning organization, knowledge sharing and readiness to change among civil servants.

ii. To investigate the relationship between create continuous learning opportunities and readiness to change.

iii. To investigate the relationship between promote inquiry and dialogue and readiness to change.

iv. To investigate the relationship between encourage collaboration and team learning and readiness to change.

v. To investigate the relationship between create system to capture and share learning and readiness to change.

vi. To investigate the relationship between empower people toward a collective vision and readiness to change.

vii. To investigate the relationship between connect the organization to its environment and readiness to change.

viii. To investigate the relationship between provide strategic leadership for learning and readiness to change.

ix. To investigate the influence of knowledge sharing as a moderator on the relationship between learning organization and readiness to change.

1.4.3 Research Questions

Based on the research objectives, there were three research questions derived for this study. These research questions to answer each research objectives. They were:

i. To what extent do the respondents perceive their departments as a learning organization, and what is their change readiness and knowledge sharing perceived level?.

ii. What are the relationship between create continuous learning opportunities and readiness to change?.

iii. What are the relationship between promote inquiry and dialogue and readiness to change?.

iv. What are the relationship between encourage collaboration and team learning and readiness to change?.

v. What are the relationship between create system to capture and share learning and readiness to change?.

vi. What are the relationship between empower people toward a collective vision and readiness to change?.

vii. What are the relationship between connect the organization to its environment and readiness to change?.

viii. What are the relationship between provide strategic leadership for learning and readiness to change?.

ix. To what extent does knowledge sharing significantly moderates learning organization and change readiness relationships?.

1.5 Research Hypotheses

Related research hypotheses based on the literature review and how it's derived will be discussed in chapter 2. Therefore, there were eight research hypotheses derived for this study. These research hypotheses will answer research objectives 2 and 3. They were:

Ha1: There is a significant relationship between create continuous learning opportunities and readiness to change.

Ha2: There is a significant relationship between promote inquiry and dialogue and readiness to change.

Ha3: There is a significant relationship between encourage collaboration and team learning and readiness to change.

Ha4: There is a significant relationship between create system to capture and share learning and readiness to change.

Ha5: There is a significant relationship between empower people toward a collective vision and readiness to change.

Ha6: There is a significant relationship between connect the organization to its environment and readiness to change.

Ha7: There is a significant relationship between provide strategic leadership for learning and readiness to change.

Ha8: Knowledge sharing will be significantly moderates learning organization and readiness to change relationship.

1.6 Conceptual Framework

Watkins and Marsick's learning organisation model (DLOQ) used as the research instrument to measure learning organization in this study (1993, 1996), while readiness to change was based on Dunham's (1989) model. Knowledge sharing behavior is included as a moderator variable (Chennamaneni, 2006). This research instrument has been chosen to be used because it has been adapted in various previous studies around the world. Therefore, it is reliable and can be adapted to this study.

The learning organization model is composed of seven dimensions (Watkins & Marsick's, 1993, 1996). Create continuous learning opportunities, encourage collaboration and team learning, inquiry for learning, empower people toward collective vision, collaboration and dialogue, create system to capture and share learning, leadership and

environment connection were the dimensions. This model was previously adopted by Samad (2009) and Haque (2008) when assessing the relationship between learning organization and readiness to change among the police officers in Malaysia and Turkey.

This study's readiness to change is based on Dunham (1989) model. Nafei (2014) argued that previous researchers adopted the Dunham model to assess employees' attitudes toward change. Firstly, it was adopted by Kusunoglu and Tanriogen (2009) in studying the relationships between behavioral instructional leaders with a change in attitude towards school. Secondly, Yousef (2000) adopted the model to study the relationship between Islamic work ethics and employee attitudes towards change. Vakola et al. (2004) also adopted Dunham's (1989) model to study the role of emotional intelligence and personality in employee attitudes towards change. Therefore, the Dunham model was a genuine model to examine the readiness to change of the employees. Knowledge sharing in this study was proposed as the moderator and based on Chennamaneni (2006). This measurement consists of seven items based on the Likert scale. Overall, both researchers reported very high internal consistencies for knowledge sharing behaviour scale. **Figure 1.3** presents the conceptual framework.

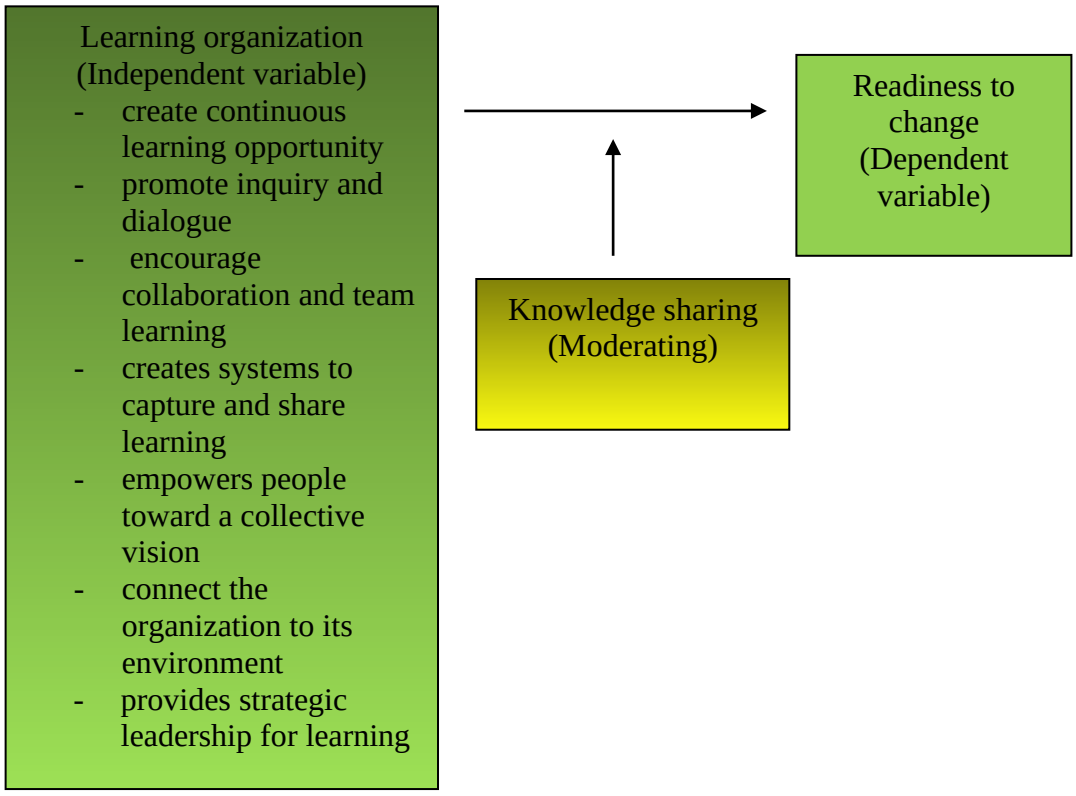


Figure 1.3: The conceptual framework

1.7 Definition of Key Terms

The following are conceptual and operational terms and definitions to further clarify the research topic and key points. The conceptual term is defined as a conceptual definition outlining the basic principles underlying a term. On the other hand, the operational term is defined as a metric for quantifying something of interest.

1.7.1 Learning Organization

Learning organization refers to an organization that is capable of "creating, acquiring, transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (Tseng, 2010, p.80) and improving employees' knowledge via continuously

learning process Pedler, Burrgoyne and Boydell (1991). In this study, a learning organization is defined as an effort to build or develop a government department that functions as a learning organization where civil servants are involved in continuous learning to improve their skills, capabilities, knowledge, capabilities, and abilities through formal or informal learning for supporting the effectiveness of public services as well as preparing to face future changes so that the effectiveness of the government's delivery system is always at the best level and continues to be relevant to users or the people.

1.7.2 Readiness To Change

The ability to resist or accept change at an early cognitive stage is referred to as readiness to change (Armenakis et al., 1993) and is influenced by the beliefs that change is needed, environmentally supported, and significant (Rusly, Corner & Sun, 2012). In this study, readiness to change is an effort to promote and organize efforts to increase the level of readiness to change in government departments by ensuring that civil servants have faith in the need for change, sufficient support, and an understanding of the importance of change, especially involving the willingness to accept the use of technology modern for service delivery.

1.7.3 Knowledge Sharing

Knowledge sharing refers to exchanging knowledge between many parties, such as individuals, groups, and organizations (Khalil & Shea, 2012). It involves an individual consumption of expertise, judgments, facts, and ideas that are relevant to organizational performance, individual, and team (Alavi & Leidner, 2001). Knowledge sharing behavior is positive personal behavior regarding knowledge sharing (Fishein & Ajzen, 1975 & Bock

et.al, 2005) and involves knowledge donating and knowledge as a knowledge source (Van den Hooff &Van Weenen, 2004). In this study, an operational term for knowledge sharing behavior is defined as developing a culture of knowledge sharing in government departments to improve the performance of organizations, individuals, and teams through the active exchange of knowledge, expertise, and ideas among civil servants, especially by optimizing the use of modern communication technologies such as social media among government departments and civil servants.

1.7.4 Create Continuous Learning Opportunity

Create continuous learning opportunity refers to as continuous learning promoted through effective informal and formal learning planning and blended into ordinary job scope for the purpose of continuous learning (Watkins & Marsick, 2003), and leaders are supposed to coach and facilitate other people within the organization **(**Samad, 2009**).** This dimension expected managers as coaches and "learning is ongoing, strategically used, and grows out of the work itself" (Watkins & Marsick, 1999, p.81), besides, "workers to be willing to change, adapt, grow, and take control of work-related decisions" (Marsick & Watkins, 2003, p.14). In this study, the operational term for create continuous learning opportunity refers to integrating continuous learning into the daily work scope of civil servants through strategic formal and informal learning planning, as well as encouraging management and department heads as trainers and facilitators to support staff development in in government departments.

1.7.5 Promote Inquiry and Dialogue

Promote inquiry and dialogue refers to inquiry purposes, including challenging current assumptions and questioning process in the way of open communication and mind (not to condemn an individual) among organization members (Samad, 2009), and supported by receiving and giving feedback culture that supported by organizational climate (Watkins & Marsick, 1999). In this study, an operational term for promote inquiry and dialogue refers to the effort to promote a culture of critical inquiry and open dialogue among civil servants, where current assumptions and work processes are constructively questioned through open communication that does not punish individuals, as well as reinforced by a culture of feedback and support in government department organizations.

1.7.6 Encourage Collaboration and Team Learning

Encourage collaboration and team learning refers to employees expanding their organization capacity through work collaboration, and "work is designed to use groups to access different modes of thinking" (Sadegh Sharifirad, 2011, p.666). In this study, an operational term for encourage collaboration and team learning refers to improving the ability of government departments through collaborative work and group learning where tasks are planned to take advantage of various ways of thinking, experience, skills and individual expertise of government employees.

1.7.7 Create Systems to Capture and Share Learning

Create systems to capture and share learning is a variable in which new thought (learning) is exchanged and exercised with other personnel, and new knowledge is preserved by the organisation to avoid extinction **(**Samad, 2009**)** by technology-based

initiative (establish systems or repositories to capture and share learning) or by a low-tech approach that can be attained by bringing people together "to redesign their work, planning more systematically for innovation, and to help a global workforce learn more effectively from one another across culture" (Haque, 2008, p.15). In this study, create systems to capture and share learning operational term refers to developing an integrated system to capture and share learning among civil servants to ensure that new and ready knowledge is kept, preserved and used to drive innovation and work effectiveness, while improving organizational capabilities and civil servants to adapt to changes and remain competitive over time.

1.7.8 Empower People Toward a Collective Vision

Empower people toward a collective vision refers to personnel are given accepTable power to facilitate the realisation of organisational objectives (Samad, 2009), "people are involved in setting, owning, and implementing a joint vision" (Sadegh Sharifirad, 2011, p.666) and "providing employees with with opportunities to take control of the situation, encouraging a habit of learning and development, helping them set and achieve goals, providing resources, and rewarding achievements" (Haque, 2008, p.214). In this study, empower people towards a collective vision operational term defined as to empower civil servants to take an active role in achieving the collective vision and mission of government departments through involvement in setting and implementing objectives, as well as providing opportunities for learning and development, resources that required, and appreciation for achievement.

1.7.9 Connect the Organization to Its Community and Environment

Connect the organisation to its community and environment refers to organisation that is needed to respond to the needs of its members and external customers (Samad, 2009) and "People are helped to see the effect of their work on the entire enterprise" (Sadegh Sharifirad, 2011, p.666). In this study, the operational term for connect the organization to its community and environment is defined as creating a strong relationship between the government department and the community and its environment by ensuring that staff understand the impact of their work on the general community and the entire department, as well as encouraging responsiveness to the needs of members community and external customers.

1.7.10 Provide Strategic Leadership for Learning

Provide strategic leadership for learning *d*efined as "leaders model, champion, and support learning" (Sadegh Sharifirad, 2011, p.666) and "leaders help people create a collective vision toward which the entire organization can work in a learning organization" (Watkins & Marsick, 1993, p.17), besides, provide strategic guidance for utilising learning to drive change and move the organisation in new directions or into new markets (Watkins & Marsick, 1999). In this study, provide strategic leadership for learning operational term refers to ensuring that leaders or heads of government departments are models that support and promote learning and provide strategic guidance to use learning as a driver of change and development of government departments and their staff.

1.7.11 Civil Servants

Civil servants refer to the federal civil servants that work for federal agencies in the state (General Order, 2003). In this study, civil servants' operational term refers to the federal civil servants that work in Kuching and Kota Samarahan divisions in Sarawak.

1.7.12 Communication Technology

Communication technology refers to digital platforms used by civil servants and the public, such as social media. Social media refers to software applications such as Facebook, Twitter, and YouTube (Genden, 2015) that many users use for the purpose of interactions (Jue, Marr & Kassotakis, 2010). In this study, social media refers to the medium of civil servants and government departments to deliver services, communicate and share knowledge which includes Facebook, Twitter, WhatsApp, Telegram, YouTube, Instagram and so on and enables learning and knowledge sharing among its users.

1.8 Significance of the Study

This study is significant in theoretical, empirical, methodological, and practical contributions to the current body of research knowledge in learning organizations, change readiness, and knowledge sharing among Malaysian federal civil servants. The findings of the study may be useful to the management and employees in the public sector where it is being conducted. Students, researchers, scholars, policymakers, and practitioners may find them valuable.

1.8.1 Theoretical Significance

From a theoretical point of view, this thesis contributes to the understanding and use of Bandura and Lewin's theory in the current study. By adding the dimension of knowledge sharing as a moderator, this thesis extends existing theories. It contributes to understanding theories involving the complex interaction between learning organizations, readiness to change, and knowledge sharing.

1.8.2 Empirical Significance

This thesis makes a significant empirical contribution to understanding the relationship between learning organizations and readiness to change, and the role of knowledge sharing in moderating that relationship. The data obtained from empirical research will provide an in-depth understanding of the practices of learning organizations, the level of readiness to change among employees, and the extent to which knowledge sharing plays a role in shaping this relationship. Furthermore, this study enriches existing literature related to studies in the public sector in Malaysia, and the importance of the findings from this study should be considered, given that similar studies involving many government departments at one time are limited.

1.8.3 Methodological Significance

This thesis introduces a comprehensive framework for studying the relationship between learning organizations, readiness to change, and knowledge sharing. By employing the dominant quantitative method, this study enriches existing research methods and provides opportunities and ideas for researchers to conduct research with a creative

methodology. Therefore, diversity in data collection and analysis contributes to the methodological literature of organizational and management research.

1.8.4 Practical Significance

In practical terms, the results of this study provide insights for organizational management on the importance of being a learning organization and how this practice can shape employees' attitudes and willingness to change. The knowledge of how knowledge sharing can be moderated to improve this relationship will provide practical guidance for improving human resource management practices and organizational change strategies.

1.8.5 Contribution to the Policy

This thesis aims to aid in the development and implementation of learning organization policies. The study's outcomes have revealed that policies that promote and support a learning culture are essential for organizational success. By examining the factors that influence learning organizations, policymakers can revise policies to ensure that organizations foster an environment that encourages continuous learning. Furthermore, the results of this thesis provide policymakers with vital insights into how organizational learning practices contribute to change readiness. Policymakers can formulate policies that facilitate the implementation of organizational learning initiatives and promote organizational change more effectively with the help of this information.

1.8.6 Contribution to the Practitioners

This study offers practical guidance to organizational leaders, helping them understand the factors that influence employee readiness to change while maximizing

learning in their organizations. The results of this research can be used to plan and execute more effective initiatives that promote change and learning within their teams. By identifying the most effective knowledge-sharing strategies in the context of learning organizations, this thesis provides practitioners with valuable insights to enhance their work. With this knowledge, leaders can plan and implement knowledge-sharing initiatives that strengthen the relationship between organizational learning and readiness to change. Ultimately, by prioritizing the contributions to policy and practitioners, this thesis aims to develop organizations that value continuous learning and the ability to adapt to the changing needs of their environment.

1.9 Chapter Summary

This chapter describes the relationship between learning organization and readiness to change moderated by knowledge sharing. It further outlines the research objectives, hypotheses and related research questions that explain how the theoretical, empirical, methodological and practical gaps will be addressed in this research. In the end, this chapter consists of the significance of the study and definitions of all the terms that are incorporated in this study. The following chapter will discuss related literature and hypotheses development that provided the sound base for the current research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter focus on discussion about related literature review involves in this study. This includes learning organization, knowledge sharing behavior, and readiness to change definitions, concepts, models, and theories that are related in this study. This chapter is discussed based on theoretical, empirical, and practical perspectives. This chapter helps identify the research gap from the varying elements and perspectives, leading to the establishment of the objectives, research question, hypothesis, and conceptual framework.

2.2 Organizational Change and Readiness to Change

Standing change management is fundamental to the sustainability and competitiveness of organizations in today's uncertain business environment. Technological advances, market shifts and global dynamics require a different approach from the norm and need to be well implemented to change. For organizations, embracing change is not an option but an essential step towards profitability, improved reputation and long-term sustainability. Therefore, the success or failure of organizational change efforts is dependent on the readiness of change management which is an important element in this transformative journey.

In today's landscape marked by unparalleled levels of uncertainty and complexity, having the right mindset and readiness for change is an essential element for an

organization to thrive in order to adapt to remain relevant and competitive. Fast-moving technological evolution, changing consumer preferences and uncertain geopolitical shifts demand a proactive approach to change from organizations. For example, the shift towards remote work triggered by global epidemics such as the COVID-19 pandemic. Organizations that quickly embrace and adapt to these changes not only survive but thrive. This situation highlights the importance of readiness to change. Another example is how large companies such as Apple and Amazon make technological innovation their driving force to the forefront and survive in their respective industries.

At the heart of successful change management lies the concept of willingness to change. Efforts in building readiness to change is a proactive and continuous process. As a first step, an organization can start by cultivating leadership qualities that promote adaptability and innovation. It is a step that involves investing in leadership development programs that equip executives with the skills to navigate and lead through change. As for the training program for employees, it should focus not only on technical skills but also on soft skills such as cultivating a growth mindset and resilience. It should be accompanied by a communication strategy that is transparent, timely, and tailored to different stakeholder groups to ensure that everyone on board understands their respective roles in the change process. Also to be given special attention is the technological factor such as providing the necessary related infrastructure such as free wifi for the internet and it must be supported because it is central to the change process.

Change readiness emerges as a compass or guide for organizations toward continued success in the sea of turbulent environments of the modern business landscape. The transformative nature of organizational change requires a strategic and planned

approach to change management, with readiness at its core. While in the uncertain future phase, organizations must realize that change is not a destination but a continuous journey. Embracing change readiness as the foundation of a strong culture can ensure that organizations not only survive but thrive in the face of evolving challenges. Ultimately, the ability to adapt and innovate becomes the ultimate competitive advantage, and a willingness to change is the compass that shows the way forward.

2.3 Defining Readiness to Change

Organizational change is a common occurrence in today's business world, and it all depends on the concept of readiness. Different definitions of readiness have been presented by scholars in past research, each shedding light on the various aspects of readiness to change.

According to Armenakis et al. (1993), change readiness is rooted in the beliefs, attitudes, and intentions of organizational members. They argue for the need for a holistic alignment of individual and collective convictions, going beyond just acknowledging the necessity for change. Actual readiness, in their view, is a convergence of understanding and collective commitment. Armenakis et al. (1993), view supported by Eby et al. (2000) where they focusing on the subjective realm, highlighting the significance of employees' perceptions in gauging organizational readiness to change. Their definition acknowledges the inherent subjectivity of readiness, recognizing the critical role individual perspectives play in shaping an organization's overall preparedness.

Jansen (2000) takes a broader approach by viewing readiness as the delicate interplay between an organization's capacity for change and the individual perception of

the necessity for change. This view seeks to bridge macro and micro perspectives, emphasizing the nuanced relationship between organizational infrastructure and individual understanding. Cunningham et al. (2002) on the other hand introduced the concept of "demonstrable need" as a precondition for change readiness. According to their argument, a tangible need, coupled with self-efficacy and an opportunity to participate in the change process, defines readiness. This definition reinforces the importance of providing a compelling rationale for change, making it a fundamental precursor to readiness.

Jones et al. (2005) however focusing on the psychological dimension, underlining the importance of employees' positive views on the need for change and the potential positive implications. Their definition emphasizes the emotional and psychological aspects of readiness, highlighting the need to foster a positive attitude toward change among employees. Holt et al. (2007) present a comprehensive framework that encapsulates various facets of readiness, including employees' beliefs in their capability, the appropriateness of the proposed change, management support, and the perceived benefits to organizational members. This holistic framework underscores the interconnected nature of factors contributing to readiness, emphasizing individual empowerment, alignment with organizational goals, leadership support, and perceived benefits. Weiner (2009) takes a different approach, emphasizing change commitment and self-efficacy as critical components of organizational readiness. He believes that beyond recognizing the need for change, the active engagement and confidence of the workforce in understanding, contributing to, and sustaining the proposed changes are vital.

Overall, the diversity of definitions of readiness to change provides a comprehensive picture of its complexity. Successful readiness requires more than simply

recognizing the need for change; it demands emotional, psychological and organizational readiness. Combining these definitions can highlight the need for a holistic approach addressing both organizational and individual readiness. Accordingly, the complex interrelationships and interactions between beliefs, perceptions and tangible and intangible factors emerge as key drivers of successful change initiatives. It should be understood that without a strong readiness that includes both parties, whether it is the organization, staff or even individuals, any effort towards the implementation of effective change in the organization remains full of challenges. At a time when organizations are grappling with inevitable change, embracing a holistic understanding of change readiness is critical to navigating the complexities of today's ever-evolving and volatile business landscape.

The public sector or government departments are also not exempt from dealing with an atmosphere of uncertainty. As stated by Powers and Diaz (2023), organizations today face a constantly changing, violent and unpredictable environment due to factors such as technological advances, current changes in the political landscape and changing expectations of the people. This situation demonstrates and supports that readiness to change is essential for organizational success, especially in the public sector, where external pressures and citizen demands drive the need for transformative initiatives. Readiness to change is the initial stage in the change process and includes the individual's mental attitude towards accepting or rejecting organizational change (Holt, Armenakis, Harris & Field, 2006). This mental attitude is very important when individuals face or prepare to change emotionally and cognitively (Jones et al., 2005; Eby et al., 2000). As defined by Timmor and Zif (2010), readiness for change in an organization is to focus on organizational structure, learning, and staff attitudes towards organizational change. It is a

concept that includes the mental and physical readiness to accept or resist a change program (Armenakis et al., 1993; Madsen, 2003).

Every change that occurs in the organization is sure to trigger a reaction or reaction that can be positive or negative, depending on various factors and the level of acceptance to the change, especially among the members of the organization. Therefore, every response that results or occurs is an early indication of a change that is implemented, either planned or unplanned in the organization. There are many reasons why change is implemented in an organization and one of them is for the organization to be more competitive and to remain relevant. Whatever the reason why the change in the organization is implemented, every reaction resulting from the change is very important. Shin et al. (2012) argue that the negative response to change is the main cause of the failure of change implementation that affects employee attitudes. Employee commitment to organizational change is higher when a positive attitude makes employees more likely to accept change. A study by Yingxia Cao, Haya Ajjan, Paul Hong, and Thuong Le (2018) in China highlights the importance of employees' internal readiness for change. According to them, internal readiness also affects the satisfaction of internal and external stakeholders including employees.

In the public sector, the success of change is closely related to the readiness of civil servants themselves. Without mental, physical and emotional readiness among civil servants, it is impossible for any change initiatives in government departments to lead to the good of the public sector. The opinion of Metwally, Ruiz-Palomino, Metwally, and Gartzia (2019) is that any resistance among civil servants especially when they are not ready for change can be an obstacle to the success of any change initiative in the public

sector. Therefore, it can be understood why individual readiness for change is considered the backbone of any organizational change implementation and becomes very critical and important (Roemer et al., 2021). The same opinion has been emphasized by other scholars such as Wang, Olivier, and Chen (2020) who emphasize that readiness is one of the most critical variables that influence the initial support of organizational members for any change initiative. This response extends to organizational change readiness as a prerequisite for successful implementation where scholars such as Roemer, Sutton, and Medvedev (2021) have underlined the importance of employee readiness to change by emphasizing its important role in successful organizational change.

Change readiness, a multifaceted concept, encapsulates an organization's willingness and capacity to initiate and successfully implement transformative initiatives. It becomes especially crucial in the public sector, where the success of change initiatives is often hindered by factors such as resource constraints, trust issues, project management challenges, technology implementation problems, poor communication, lack of change management skills, and abandonment (Burnes, 2004; Candido & Santos, 2008; Adhiatma et al., 2022). Regardless of scale, organizational change is inevitable (Drucker, 1999). Organizations must navigate the inevitability of change, threatened by factors like rivalry, growth, and advanced technology (Madsen et al., 2005). However, regardless of its benefits, the transformative process brings about nervousness, uncertainty, ambiguity, and anxiety (Shah & Shah, 2010). In conclusion, readiness for change is a critical determinant of success in the public sector, where external pressures and evolving citizen demands drive the need for transformative initiatives. Employee readiness, both at an individual and organizational level, emerges as a pivotal factor influencing the outcome of change

initiatives. Recognizing the inevitability of change, public sector organizations must prioritize readiness to navigate uncertainty and ensure successful outcomes in an ever-evolving landscape.

2.4 The Characteristics of Employees Ready to Change

The ability to change fluidly among organizations is one of the most important aspects of today's organizational world. Being in an era or time that continues to witness rapid changes, organizational staff including civil servants who have a readiness to change hold an important role in the success of an organization or department. Therefore, staff who show and have a readiness to change are able to have a positive impact on the work environment and the achievement of the organization's objectives as a whole. In general, they have specific characteristics.

First of all, one of the main characteristics of civil servants who are willing to change is to always have the desire to learn and continue to grow in order to improve themselves and the organization. These people are able to understand that in order to remain competitive in a changing environment, they need to continuously improve their abilities, skills and knowledge. Therefore, they will always look for opportunities and space to learn through various methods such as training, courses, or reading materials related to their professional development. They often have a positive outlook and attitude and do not consider change as a threat but rather as an opportunity to improve their skills and capabilities.

Second, civil servants who are ready to change have a positive attitude towards challenges and uncertainties. These people are not disturbed by the changes that happen,

instead they take the initiative to find solutions and achieve goals even in uncertain and challenging situations. They have high confidence that they are able to face any challenge and act to adapt to a rapidly changing environment.

In addition, civil servants who are ready to change also tend to be creative, pragmatic and innovative thinkers. They are not tied to old ways or routines. Instead, they are always looking for new, more creative and innovative methods to improve work processes or create new solutions to problems that arise. They are also often seen as willing to try different approaches and not afraid to fail in the process of finding the best solution.

civil servants who are willing to change will also demonstrate the ability to communicate and work well with other colleagues. They understand that change often involves collaboration in a group or team, therefore, they are willing to collaborate and share ideas with others to achieve common goals. They are not only satisfied with personal achievements but are willing to work together for the success of the organization as a whole.

In conclusion, civil servants who are ready to change are valuable and invaluable assets for any organization or government department. These people are able to play an important role in helping organizations and government departments to adapt to changes that occur in a dynamic business environment. With a positive attitude, desire to learn, creative skills, and the ability to collaborate, they are able to be the main drivers in achieving the long-term success of the organization and department. Therefore, it is important to recognize and support the development of such individuals in the work community.

However, there are several factors that can prevent civil servants from achieving readiness to change effectively. Uncertainty and confusion are among the main factors that can cause the failure of willingness to change. Employees may experience reluctance to accept change if they are unclear about the purpose of implementing the change and its impact on their jobs. This is because without a clear understanding, confusion, annoyance and uncertainty will hinder the progress of change in them.

In addition, as a result of the lack of effective communication from the top management of the organization about the upcoming change initiative is also a factor that may hinder readiness. Ideally, employees should be given sufficient, accurate and clear information about the purpose of implementing the change, the related measures that will be taken, and how the change will affect them directly in the present and in the future. The impact of a lack of effective communication can cause anxiety and uncertainty among staff, which in turn inhibits willingness to change directly. Furthermore, a lack of support and opportunities for skill development can also lead to a lack of willingness to change. Staff need solid support from management as well as the opportunity and space to acquire the training and development of necessary and appropriate skills to manage change effectively. Without adequate support and development, staff may feel powerless, unsure or unable to cope with the changes required.

Resistance to conservative organizational culture can also be a significant obstacle. If the organizational culture prioritizes stability and conservatism, then the reluctance to change will be higher. An organizational culture that does not support innovation, creativity and change can prevent employees from accepting the changes needed to improve organizational effectiveness.

Lack of civil servants to change can also be caused by excessive work imbalance. Employees who feel overworked or under high pressure may be less inclined to be open to change. They may feel they don't have enough time or resources to deal with incremental change which hinders readiness to change.

In addition, a lack of trust in top management can also cause a failure of willingness to change. Employees need to have faith in the management's ability and intentions in handling each change initiative. Without such trust, staff may not be willing to engage in the change process within the organization. Finally, fear of risk and failure can also inhibit the willingness to change among civil servants. Fear of risk and failure can prevent employees and public servants from trying new things or taking the necessary steps to change the way they work.

To overcome these factors, it is important for management to develop an environment where willingness to change is nurtured and encouraged. Clear communication, solid support, development opportunities and an organizational culture that supports innovation are essential in overcoming these barriers and increasing the success of change in government organizations. By taking the appropriate steps, government organizations can ensure their staff are ready and able to effectively change for the common good.

2.5 Organizational Factors for Embracing Change

Whether one likes it or not, change and organization are inevitable in today's dynamic and challenging environment. As there are not many options given nowadays, i.e. whether to adapt to technological advances, follow market shifting trends or adapt to

growing and demanding consumer demands. Whatever choice is made, it always requires one thing, change. It is a choice that must be made to grow and thrive. However, it is not as easy as it seems. The success of implementing change in an organization largely depends on the readiness of employees to accept change (Armenakis & Harris, 2002; Eby et al., 2000; Holt et al., 2007). Therefore, there are several organizational factors that play an important role in encouraging employees including civil servants to adopt and support the changes that occur in the organization.

Strong and mature leadership is important in driving organizational change. Every leader who acts in the fight for change will lead by example and actively engage with employees in inspiring their confidence and motivation. The leader's leadership is able to express an attractive and clear vision for the future and align it with the organization's values and goals. Effective leaders also act to provide relevant support and resources, are able to address concerns and frustrations among staff and remove barriers and demonstrate their unwavering commitment to the success of change initiatives. The presence and guidance of the leader who seems to convince the employees is able to encourage the staff to accept the journey of change.

In addition, an organizational culture that supports and fosters an environment conducive to change acceptance should also be established. Such a positive culture includes a culture that values innovation, collaboration and continuous learning in encouraging employees to explore new ideas and approaches that are more innovative and pragmatic in accordance with current conditions and needs. Furthermore, small but meaningful actions such as recognizing efforts and achievements related to change initiatives can certainly reinforce positive behavior and foster a sense of "belonging"

among employees. In addition, organizations that prioritize employee well-being and instill a balance between work-life are also able to create an atmosphere conducive to accepting change and the result is that employees feel more motivated to be involved in organizational change.

The act of providing adequate and appropriate training and development opportunities is also able to equip employees with the skills and knowledge needed to adapt to change effectively. A good training program is one that is tailored to the specific needs of the change initiative and it is able to build competence and confidence among employees.

Other appropriate efforts such as the implementation of a coaching program that offers personalized support will certainly help employees navigate the challenges and uncertainties associated with organizational change. Therefore, investing in employee development not only increases their capabilities but also strengthens employees' commitment to the success of the organization.

In addition, efforts in creating a clear accountability and reward system will reinforce the desired behavior and results related to change in an organization. Clearly defined roles and responsibilities will ensure that employees understand their contribution to the organization's change efforts and are therefore prepared to take responsibility for their actions. By recognizing and giving appropriate rewards to individuals and teams for their proactive involvement in the successful implementation of change initiatives will be able to strengthen the culture of readiness for change and continuous improvement in the

organization. In conclusion, by cultivating these factors, it will be able to help by acting in driving organizational success in the current ever-evolving and challenging landscape.

2.6 Civil Servants as Human Capital

In today's modern era, the public service is no longer just a provider of services. It has become the backbone and driving force behind national development. Civil servants, who make up the majority of the public service, play an essential role in supporting government policies and contributing to the country's human capital. According to Article 132 (1) of the federal constitution, the public service includes the armed forces, the judicial and legal services, the federal general public service, the police force, the joint public service mentioned in Article 133 of the Federal Constitution, the public service for each state, and the education service.

As the country's development moves towards a focus on human capital, civil servants are seen to play a very important role in community development (Saidov, 2020). It is so considering that government employees are seen to play a role in ensuring people's satisfaction with the services delivered (Bal, 2021). Civil servants who represent the human capital of government services and are the main assets that can provide a competitive advantage and improve the efficiency of public services. These people are not only about the number of employees serving but also related to the knowledge, skills, and experience possessed by individuals (Pasban & Nojedeh, 2016). For civil servants, the development of human capital is not only to improve the level of education but also related to hone skills and expertise related to their respective duties.

Civil servants are important in managing and administering the country's resources (Eke, Eke, & Agala, 2023). They are a group of individuals responsible for implementing government policies, planning and implementing development projects, and maintaining an efficient government administrative system. Efficiency in this management is very important to ensure that all available resources are used wisely, efficiently and support the sustainable development of national policies (Chalirafi et al., 2023). One of the main focuses of civil servants is the implementation of national economic development. They play a special role in driving the country's economic activities through annual budget planning and infrastructure project planning as well as development program planning that aims to create job opportunities and improve the current standard of living of the people. In addition, civil servants also act as guardians of justice and social balance in the country. Through social security programs and welfare initiatives provided, they help the needy and always ensure social justice is maintained in the community (Gumah & Aziabah, 2020). In conclusion, civil servants are very important in the national development agenda. It is due to the fact that civil servants are not only acting as government employees but are also human capital that drives the success of national development programs and the well-being of the people. Therefore, the continuous improvement of the quality and commitment of civil servants is very important to ensure that the country is moving towards continuous and sustainable development.

2.7 Assessing Civil Servants' Readiness Among the Public Sector

Change is something that will continue to happen regardless of time, place and time. In the organizational context, changes in the Malaysian public sector are not unusual. It can be seen in recent years. When the country's political landscape changes, it will

directly affect the public sector. For Malaysia, the country has experienced a change in government since 2018 when a new political party, Pakatan Harapan (PH), took over the reins of government from the previous party that had ruled for over 60 years (Wong, 2018). This change in government leadership not only involves an administrative transition but also leads to changes in existing government policies including the introduction of new policies. As a result, the way of working, the scope of responsibilities and the daily tasks of government departments and civil servants are also affected by these changes.

In the complex machinery of the Malaysian public sector, civil servants are the backbone of the government machine, responsible for translating all government policies into action and implementation. As the governance landscape evolves or changes, the willingness of civil servants to adapt to change becomes a priority. Readiness to change among civil servants refers to their readiness, acceptance and willingness to accept new ideas, methodologies, methods or technologies in the public sector. It includes the ability to navigate changes in policies, procedures, implementation and work culture in an effort to ensure public servants remain effective, relevant and responsive to changing national needs.

The need for change arises due to many driving factors and one of them is when the existing practices in the public sector are no longer in line with the demands and needs of the current rapidly evolving society. These include technological advances, changes in public expectations and global challenges requiring proactive responses from civil servants to ensure efficient and effective governance. Change is fluid and it permeates various levels of the public sector, from federal ministries to state departments and local

government bodies. Accordingly, civil servants across these different levels need to adapt as changes can occur in current policies, procedures and service delivery methods.

The responsibility for creating a willingness to change among civil servants rests with both organizational leadership and individual civil servants themselves. As for leadership, the leaders themselves must communicate a clear vision for change, provide the necessary training and create an environment that encourages innovation. At the same time, civil servants should and must play an important role in accepting change by improving their skills and adopting a positive mindset that leads to continuous improvement. Civil servants' readiness to change is crucial for maintaining the public sector's relevance and effectiveness. It ensures that the government workforce can meet the expectations of an increasingly sophisticated and diverse citizenry. Adaptable civil servants contribute to improved service delivery, increased efficiency, and the overall modernization of the public sector (Kolesnichenko & Kolesnichenko, 2018). In addition, it also increases the positive image of government departments among the general public which in turn strengthens the existing ruling government and helps maintain political stability in the country.

Cultivating a readiness to change among civil servants involves a multifaceted approach and methods. Since the public sector is a complex organization with a different culture than the private sector, the various planned programs should be thoroughly researched and carefully planned. It includes training programs implemented to improve technical skills and provide a deeper understanding of the changes and needs of the current landscape. Additionally, leadership should promote a culture that values innovation, continuous learning, open communication and collaboration. Involving public servants in

the decision-making process and fostering open channels of communication can create a sense of ownership and commitment to change initiatives. Furthermore, the provision of basic infrastructure facilities such as free wifi in government departments is also very helpful in encouraging the use of modern communication technology such as social media among civil servants. In addition, the practice of empowerment, providing appropriate systems and always communicating with the community is also seen in helping foster efforts to increase readiness to change among civil servants and government departments.

In conclusion, when the country and government strive to achieve progress and development, the willingness to change among civil servants is important and should not be forgotten. The forward-thinking and positive public sector really needs civil servants who are not only skilled in their roles but can also adapt to current conditions and needs, knowledgeable, innovative, creative and open to all changes. By applying these characteristics, it is able to create a public service that is resilient, responsive, and ready to face the challenges of the 21st century.

2.8 Readiness for Technological Change in the Public Sector

The delivery of government services has evolved due to the rapid development of world communication technology. The internet has created more accessible and faster communication channels between government departments, staff, and the public. This shift has made government services more efficient, aligning with the *Pekeliling Kemajuan Pentadbiran Awam Bilangan 1/2003,* which emphasizes the importance of improving communication efficiency between government departments, staff and the public.

When modern communication technology did not exist, traditional communication media such as phone calls, e-mails, official letters, and face-to-face meetings were the usual communication practices applied in the public sector. However, once modern communication such as social media has existed and emerged it has become a suitable communication channel to be used in government departments. The use of modern communication technology such as social media has enabled the government to become an effective and innovative service provider while also allowing the public to become users and contributors. as a result, people can now share their opinions and feedback with government departments and vice versa. This situation is very important especially to improve the quality of public services.

Modern communication technologies such as social media have opened up new opportunities for government departments in communication systems that benefit the public. Its advantages, such as being available 24/7 and connecting people around the world, provide unprecedented opportunities for government departments. This opportunity has enabled government departments to get feedback and views directly from the public such as getting feedback on the quality of services provided. The effect of this technological advancement has enabled the communication used in the organization to be at an efficient and effective level.

The application of modern communication technology in the public sector certainly has many benefits. However, the readiness of most industries in Malaysia to adopt the technology is still at an early stage (Soomro, Hizam-Hanafiah, Abdullah, Ali, & Jusoh, 2021). Therefore, the success of implementing this change depends on the sincerity of the government department and its staff.

The public sector is keeping up with the times by leveraging technology to improve their service delivery. In particular, social media has become a popular communication tool for many public institutions. By utilizing these digital platforms, the primary goal is to enhance customer service quality and establish positive customer relationships through increased transparency, as highlighted by Sharif et al. (2015). Recent studies conducted by Sendawula, Kimuli, Turyakira, and Kibanja (2022) in Uganda found that business owners and managers appreciate the relevance of social media in their operations. They perceive it as easy to use and compatible with their businesses, and ultimately support its usage to enhance sustainable growth. This finding is in line with the work of Effendi, Sugandini, and Istanto (2020), who documented how social media platforms and channels that are useful, easy to use, and aligned with a business's values can facilitate customer satisfaction and drive growth.

Social media offers the ability to create unique groups, share text, pictures, videos, and audio messages, making it a versatile communication platform. As a result, users can communicate easily and receive instant feedback, making it one of the most effective tools for communication in government departments (Allaguiy, 2014; Chairunnisa & Benedictus, 2017; Noa & Taly, 2016). Studies have shown that the use of social media can improve employee engagement (Pinto et al., 2017). More frequent and intimate interactions can increase employee engagement (Zaifulnizam & Siti Zobidah, 2018). Typically, communication with government departments relies on formal communication tools in the workplace such as email and telephone (Archer-Brown & Kietzmann, 2018). Social media has enhanced the ability to interact and implement essential management functions, contributing to the effectiveness of internal communication (Ngai et al., 2015).

Previous studies on the readiness of the Malaysian public service to use technology have produced mixed results. It then shows a need for further investigation. For example, there is a study that has shown that the level of technology acceptance is poor among public service employees (Siddiquee, 2008). While other studies suggest that the readiness to use technology is above the average level with a high level of e-training readiness in computer use attitudes and a moderate level in computer literacy, computer facilities, and technology access (Azman et al., 2015). Nevertheless, recent research by Yuan and Cheah (2020) in the public service in the health sector has shown a positive shift in willingness to use technology, indicating that public service personnel are increasingly open to adopting technology. Nevertheless, they emphasize the need for more persuasion to increase the use of technology (Yuan & Cheah, 2020). Therefore, further research is necessary to obtain consistency in research findings, new perspectives and the latest perceptions on the readiness of the Malaysian public service to utilize technology. With a better understanding of the current state of technology use, policy makers, researchers and practitioners can develop effective strategies to improve the technology capabilities of public services.

2.9 Learning Organization

Learning organizations are formed by two different factors, which are technological factors and also organizational factors (Yanow, 1993; Argote, & Hora, 2017). These two factors play an important role in determining the direction and success of an organization (Basten & Haamann, 2018). Therefore, by managing these factors effectively, an organization can steer the direction of organizational change and thus put themselves on a long-term path to success. Technological factors have forced the need to adapt to the latest and current technology such as modern communication technology. Meanwhile, the organizational factor is the need for the organization to change in line with the current needs and wishes of the customer in addition to practicing a lifelong learning culture since failure to change and continue to learn can affect the delivery of the organization's services based on the customer's needs.

To meet the expectations and needs of current users, government departments need to shift to learning organizations that embrace new ways of working such as fast and effective service delivery through technology such as modern communication technology. The transition from a traditional and conservative delivery system to modern communication technology enables the provision of 24-hour access, comprehensive service delivery and the penetration of user channels across all levels of society, whether the general public living in urban or rural areas. Accordingly, learning organizations are critical in the current business landscape characterized by constant and unpredictable change (Simsit et al., 2016; Gupta & Thomas, 2001). The continued use of static organizational structures and traditional hierarchies that are increasingly outdated is

detrimental and therefore organizations must adapt to technological advances, global competition and unexpected disruptions.

Organizations that resist or ignore change run the risk of becoming obsolete, irrelevant and left behind by their ever-changing competitors. Therefore, adapting and learning quickly is not just an advantage but a necessity for the survival of an organization (Mujtaba & Baig, 2008). A learning organization prioritizes learning and continuous improvement at all levels. It is an organization that encourages and facilitates the development of new skills, knowledge sharing, and adaptation of best practices. Unlike traditional structures, learning organizations are organizations that foster a culture that values curiosity, creativity and adaptability (Putri & Etikariena, 2021). In such an environment, learning becomes a process and a way to become an organization characterized by flexibility and pragmatic. One of the pillars of the learning organization is organizational factors such as leadership. Leadership commitment to learning is critical and leaders must support the importance of continuous learning and actively participate in it. Their commitment sets the tone and pace for the entire organization.

Promotion of a learning organization is critical, and employees must be encouraged to seek knowledge, share the knowledge, experiment with new ideas, and learn from both successes and failures (Saadat & Saadat, 2016; Meher et al., 2022). This requires openness, trust, and a safe space for innovation. Effective knowledge management is also vital, and learning organizations excel in capturing, storing, and disseminating knowledge. This involves using technology, efficient communication channels, and a commitment to documenting and sharing insights. Adaptive systems and structures are vital for organizations to thrive, and traditional structures can sometimes hinder learning. Learning

organizations, on the other hand, embrace flexible systems that allow for quick adaptation to changing circumstances. This might involve flatter hierarchies, cross-functional teams, and agile methodologies. In addition to these structural factors, individual factors such as willingness to learn and the learning methods used also play a crucial role.

Organizations that foster a culture of learning can enjoy numerous benefits. Recent studies conducted by renowned scholars, such as Wells (2021), Saha, Sáha, Gregar, and Sáha (2020), and Šneiderienė, Vaitiekus, and Vaitiekienė (2020), have all confirmed that learning organizations help businesses adapt to current changes, maximize competitiveness, enhance agility, and accelerate innovation and competence. However, while these studies have provided some evidence of the impact of learning organizations on organizational factors, they have largely overlooked human resources. According to Frâncu, Mair, Kant, and Vasilescu (2022), human resources management plays a critical role in the future of organizations. This is because an organization's competitive edge is derived from its employees, as supported by Saini (2015), who believes that human resource management is essential in achieving organizational objectives and addressing challenges caused by environmental and technological changes.

Learning organizations promote self-organization as an essential component of the innovative process, creating an environment conducive to evolutionary sustainability. In order to improve service quality and bring the implications of being a learning organization to the forefront, civil servants must be receptive to innovation and learning. Civil servants who are knowledgeable about latest information technology can utilize it to deliver services effectively. Knowledge workers are all about learning and creating knowledge (Elkjaer, 2000; Bennet, & Bennet, 2003). They combine knowledge from multiple sources

and experiences to create new knowledge. Knowledge workers are going to change organizations. Therefore, learning enables organizations to remain competitive and agile in a hyper-competitive environment. In the context of government departments, learning is intended to deliver government services more effectively and quickly.

Learning organizations provide numerous benefits that include increased adaptability. These organizations are inherently adaptable and can pivot quickly in response to market shifts, technological disruptions, or unforeseen challenges. Additionally, a culture of learning fosters innovation, encouraging employees to think creatively, experiment with new ideas, and contribute to the organization's evolution. This, in turn, improves employee engagement and retention, as employees in learning organizations feel valued and empowered. The opportunity for continuous growth and development enhances job satisfaction and reduces turnover. Furthermore, learning organizations develop a collective intelligence that enhances problem-solving, which leads to better problem-solving capabilities (Nguyen & Nguyen, 2018; Lévy, 2020). Employees draw upon a reservoir of knowledge and experience when faced with challenges.

While the benefits of becoming a learning organization are clear, the journey is challenging. Resistance to change, fear of failure, and ingrained organizational habits can impede progress. Successful implementation requires a strategic approach, clear communication, and a phased implementation plan. To do this, invest in leadership development programs that emphasize the importance of continuous learning. Leaders should model the behavior they wish to see in their teams. Other than that, the organization should provide employees with opportunities for skill development and continuous learning. This might involve workshops, online courses, mentorship programs, and cross-

functional training. Foster a growth mindset throughout the organization, promoting the belief that abilities and intelligence can be developed through dedication and hard work, and establishing recognition and reward systems that celebrate learning and innovation could reinforce the idea that contributions to the learning culture are valued and appreciated.

The benefits of learning organization to government departments cannot be denied and disputed. Although there may be some who disagree with this opinion, it needs to be acknowledged and recognized. In the current world that continues to change, move and develop rapidly and agilely, government departments hold an important role and responsibility in ensuring the sustainability and progress of a country. For that, the concept of learning organization becomes increasingly important in this context. Learning organization refers to an organization that is able to learn from experience, adapt to change and continuously improve its ability to achieve the goals and vision of the organization. In the context of government departments, the application of the learning organization concept brings many significant benefits.

Learning organization is seen to be able to help government departments to adapt to the changes happening around them. The environment here means external factors as well as internal factors. In the era of globalization and information technology, change is the only thing that happens consistently. Therefore, government departments need to be able and ready to face new challenges such as legal changes, technological changes, current geopolitical developments, the increasingly complex needs and wants of society as well as innovation in the delivery of public services. By becoming an organization sensitive to

learning and change, government departments can quickly adapt processes, policies, and best practices to overcome these challenges.

In addition, learning organizations are also able to encourage the development of competence and knowledge among government employees. This is important since knowledgeable and experienced staff are valuable assets for an organization and department. Accordingly, by focusing on continuous learning, government departments can ensure that their staff have all the skills and information required to carry out their duties efficiently and effectively. This may involve formal training, seminars, online courses, or the sharing of relevant practical experience. Therefore, by improving their skills and knowledge, government departments can improve the quality of services provided to the people.

As a learning organization, government departments are able to encourage an open and collaborative learning culture. This means that every individual in the organization feels free to share ideas and opinions, propose changes and learn from mistakes. Such cultural practices are able to foster innovation, creativity, and continuous improvement in the delivery of public services. By creating an environment where every voice is valued and new ideas are welcomed, government departments can increase efficiency, effectiveness, and effectiveness in carrying out their duties.

Lastly, learning organization also gives and brings a positive effect on the general public's perception of the government. When the public sees that the government is an entity that is always learning and trying to improve itself, it is able to build trust and confidence in the administration of the country. This is able to strengthen the relationship

between the government and the people and form a solid foundation for the development of the country as a whole.

In conclusion, the application of the learning organization concept brings great benefits to government departments. This situation helps in adapting to changes, developing skills among staff, instilling and encouraging an open learning culture and improving the public's perception of the government. Therefore, it is important for government departments to continue to nurture and strengthen their status as a learning organization for the benefit of the country and its people.

2.9.1 Learning Organization Definitions

Numerous researchers have explored the concept of a learning organization, each adding their own unique perspective to its definition and characteristics. By analyzing the insights of various authors, we can develop a comprehensive understanding of this type of organization. Ghani et al. (2014) propose that a learning organization is a system that fosters continuous learning through interdependent and interactive processes. Boon and Hasan (2011) expand on this definition by emphasizing that these organizations require learning activities to improve their overall performance and sustainability.

Abd. Kadir (2009) offers a brief but effective definition, portraying learning organizations as committed to providing learning opportunities at various levels. This idea is consistent with Nonaka's (1991) assertion that a learning organization is ingrained in the culture of the organization, generating new knowledge for innovation. Pedler et al. (1991) emphasize that learning organizations are transformative in nature, helping members continuously evolve and adapt to achieve organizational goals. Garvin (1993) takes this

idea further by highlighting the acquisition, transmission, and development of knowledge within these organizations, identifying knowledge transfer and behavioral adaptation as key components.

Senge (1990, 2006) introduces the five core disciplines that form the foundation of a learning organization: personal mastery, team learning, shared vision, mental models, and system thinking. These disciplines help organizations achieve their desired results and foster an environment of continual learning. Watkins and Marsick (1996) provide a unique perspective by emphasizing that the development of a learning organization is an ongoing process rather than a destination. The learning infrastructure, experimental thought, information capital, and removing barriers to innovation and improvement are all integral aspects of this process.

To address organizational learning, Dixon (1997) used the metaphor of hallways and defined six essential elements that facilitate collective meaning: (a) reliance on discussion, (b) egalitarian participation, (c) encouragement of multiple perspectives, (d) non-expert-based dialogue, (e) use of a participant-generated database, and (f) the creating of a shared experience. Organizational members act in equal status to solve organizational problems.

DiBella and Nevis (1998) identified ten factors that promote learning within a team or organization. The more of these factors an organization possesses, the easier it becomes for them to learn. These factors include: (a) a scanning imperative, (b) identifying performance gaps, (c) having a concern for measurement, (d) fostering organizational curiosity, (e) creating a climate of openness, (f) providing continuous education, (g)

promoting operational variety, (h) having multiple advocates, (i) encouraging involved leadership, and (j) adopting a systems perspective. In 1998, Goh suggested five strategic building blocks for a learning organization. These include: (a) leaders acting as mentors and facilitators that inspire workers to take calculated risks to cope with uncertainty and innovate, (b) providing a mission/vision that guides people's learning, (c) allowing experimentation to develop new knowledge, which is essential to capitalize on emerging opportunities, (d) freely transferring knowledge across different areas of the organization, and (e) creating innovative ideas in cross-functional teams.

Marquardt (2002) viewed the learning organization as one that learns collectively and continually transforms itself to better collect, manage, and use knowledge for organizational success. This concept strengthens the organizational learning process and implies that acquired knowledge can be effectively handled. Ortenblad (2002) developed an integrated model comprising four elements: (a) organizational learning, organizational memory, single and double-loop learning; (b) on-the-job formal learning is the primary way that learning takes place, with formal courses playing a limited role, and with experimentation not being encouraged; (c) a positive learning environment pervades the culture of the organization, allowing for learning opportunities, on-the-job feedback, and risk-taking without fear of retaliation if employees fail; and (d) a decentralized, flat, and team-based learning system, rather than a hierarchical one. For an entity to be considered a learning organization, all four elements must be present. Rowden (2001) outlined the general characteristics of the learning organization model, summarizing them as follows: (a) having ongoing learning opportunities; (b) using learning to achieve organizational goals; (c) linking individual success with organizational performance; (d) fostering inquiry

and dialogue, creating a safe environment for people to share openly; (e) valuing creative stress as a source of vitality and renewal; and (f) maintaining constant awareness and interaction with the surroundings.

Despite some similarities, scholars point out that a learning organization is unique and cannot be generated by following a checklist. To be a learning organization, an organization should incorporate as many of the characteristics of a learning organization as possible, but the degree to which these characteristics are embodied will differ depending on the organization's culture (Watkins & Golembiewski, 1995).

Therefore, based on the various definitions that have been given, a learning organization is an organization as follows. Learning Organization refers to an entity that practices systematic and continuous learning, enabling organizational members to continue enriching knowledge, improving skills, and adapting to current changes. In today's dynamic global context, the creation and maintenance of learning are critical to the success of an organization (Saadat & Saadat, 2016). Based on the characteristics that have been stated, a learning organization can be defined as an entity that practices continuous and team learning, utilizes the latest technology, and constantly changes according to current needs with a positive, open, and constructive attitude.

For starters, learning organizations practice continuous and team learning. This means that the learning process does not only happen at a certain time or among certain individuals in the organization, but it becomes a systematic and widely maintained culture among all members. Learning is no longer seen as a task but as an ongoing and continuous

process (Jenner, 2020). All individuals play a role in contributing their ideas, knowledge, and experiences for the common good.

Then, learning organizations are able to use the latest technology for learning purposes (Sousa, & Rocha, 2019). In the rapidly growing digital era, technology has become one of the important aspects of facilitating learning. Dynamic organizations leverage various digital tools and platforms such as e-learning, learning software, and online social networks to facilitate access to information, share knowledge, and foster an open and continuous learning environment.

In addition, learning organizations constantly change according to current needs and conditions and are positive and open to change. In an ever-changing business landscape, successful organizations are those that are able to adapt quickly and effectively to current changes (Goodly, 2019; Tan & Olaore, 2021). They not only accept change but also adopt a positive attitude towards it, seeing every change as an opportunity to improve and improve their operations.

Next, learning organizations have the ability to dialogue openly and constructively. Open and constructive communication is the basis for the effectiveness of the learning organization (Kolchina, 2020; Osmanović, & Stojanović, 2021). This involves encouraging critical thinking, healthy debate, and accepting feedback with an open attitude. Through open dialogue, organizations can encourage the exchange of ideas, innovative problem solving, and mutual learning.

Learning organizations also provide the necessary infrastructure facilities for learning. This includes not only physical infrastructure such as learning centers or systems

but also sufficient human and financial resources to support learning initiatives. Wise management needs to ensure that the organization is equipped with all the necessary aspects to facilitate effective learning (Bayraktar, 2020).

Finally, learning organizations have leadership that is always open and supportive of learning. Effective leadership is the key to building and maintaining a learning in the organization (Crawford & Strohkirch, 2002; Jogulu, 2011; Nayak, 2020). Visionary leaders play an important role in championing the values of learning, providing the necessary support and resources, as well as being role models in the practice of personal learning.

In conclusion, a learning organization is a dynamic and adaptive entity that practices continuous and team learning, utilizes the latest technology, always changes according to current needs, dialogues openly and constructively, provides the necessary infrastructure facilities, and is led by a leader who is always open and support learning. By building a strong learning culture, organizations can strengthen their position in a rapidly changing business environment and achieve long-term competitive advantage.

2.9.2 Learning Organization Dimensions

Watkins and Marsick's (1993, 1996) dimensions of the learning organization (DLOQ) provide a systematic, all-encompassing approach to comprehending the various facets of a learning organization. The DLOQ demonstrates how individual knowledge creation and enhancement served as a conduit for group and organizational learning. Watkins and Marsick (1993) proposed the seven dimensions of learning as a basis for how an organization could act to become one.

Watkins and Marsick (1993) identified four levels in a learning organization: individual, team, organizational, and global. Each learning level has its own set of learning dimensions. The individual learning level includes two dimensions, create continuous learning opportunity and promote inquiry and dialogue. The team learning level on the other hand are encourage collaboration and team learning. The organizational learning level has two dimensions, creates systems to capture and share learning, and empowers people toward a collective vision. The global learning level contains connect the organization to its environment and provides strategic leadership for learning.

2.9.3 Create Continuous Learning Opportunities

Continuous learning is a dimension that incorporates both formal and informal learning strategies, acknowledging that learning is a lifelong activity. According to Watkins et al. (1996), continuous learning means that learning becomes a daily part of work and is constructed into routine activities, workers are supposed to learn not only skills related to their tasks but also the skills of others in their work team and how their workgroup linked to the operation and aims of the organization, and workers are expected to both teach and learn from their colleagues. In short, the whole work atmosphere is geared toward and supportive of the acquisition of new skills (Watkins et al., 1993). Learning is built into the work in learning organizations so that people can learn from their blunders, missteps, and problems on the job (Lyons, 2019). Defining the learning needs and the necessary tools to build learning opportunities in the workplace is essential. While creating opportunities and time is an essential source of support for continuous learning projects, it is also crucial to make available other tools such as financial allocation and good infrastructures to maintain learning activities over time. According to Lohman

(2006), continuous learning is explained as an “increased amounts of unencumbered time with discretion over how that time is used that would provide employees with greater learning opportunities” (p. 153). Investing in improving employees through learning is a must in order to “enable effective skills in achieving mission where workers are given opportunities and resources to learn, discuss their mistakes and see them as an opportunity to learn” (McHargue, 2003, p. 200). However, Neuva (2017) contends that this continuous learning organization dimension is not so favorably supported. Therefore, there is a need for the organization to generate an adequate climate in order the organization to encourage the “entire work environment towards the learning of new skills and supporting it.” (Neuva, 2017, p. 46).

At its core lies a commitment to creating continuous learning opportunities. Government agencies should act as centers of knowledge dissemination, offering various avenues for employees to expand their skills and deepen their understanding of relevant issues. From workshops and seminars to online courses and mentoring programs, the spectrum of learning initiatives should be diverse and accessible, ensuring that no one is left behind in the pursuit of knowledge.

2.9.4 Promote Inquiry and Dialogue

The learning organization's second dimension is promote inquiry and dialogue. According to Watkins et al., (1993), workers in a learning organization would obtain creative reasoning skills to voice their opinions, and perspectives and the ability to listen and inquire into the views of someone else. Promote dialogue and inquiry dimension is linked to an organizational culture that encourages individuals to voice their opinions while

also improving their ability to listen and enquire about the thoughts of others. Experimentation and feedback are welcomed and encouraged (Lyons, 2019). This dimension is thought to affect learning organization and readiness to change significantly. Open and truthful feedback from different officers of an organization is vital for employees to accept criticism with an open-minded attitude to promote a learning culture at work and enable them to acknowledge errors. Good communication is necessary to encourage learning, either positive or negative comments or experiences within the learning organization, so that acknowledgment of errors and mistakes will minimize the probability that workers will make the same mistake in the future (Michna, 2009). It is one of the pillars for getting to maturity. During the problem-solving process, the willingness to treat everyone's ideas, beliefs, understanding, comments, and opinions with respect will establish a higher level of trust than blame for mistakes when something goes wrong in the office. However, according to Neuva (2017), few respondents rated this learning organization dimension as ‘very highly favourable' to ‘highly favourable.'

To truly harness the power of learning, it is important to promote inquiry and dialogue. By encouraging a culture of curiosity and critical thinking, public servants are empowered to challenge the status quo, question assumptions, and explore innovative solutions to complex problems. This research culture not only fosters intellectual growth but also paves the way for transformational changes in government institutions.

2.9.5 Encourage Collaboration and Team Learning

Team learning is another dimension of the learning organization, which provides an opportunity to encourage readiness to change in an organization. Work is thought to

employ teams to access various perceptive perspectives, and these teams are likely to learn and collaborate. As a result, the organizational culture values teamwork (Watkins et al., 1993). It is best made possible when the team puts equality above all employees' differences when collaborating and learning. Michna (2009) describes the condition for fostering successful team learning by indicating that partnership is better established when everyone is treated with equal respect regardless of their job ranking or position. Michna (2009) then elaborated that the learning culture embedded in the characteristics of the team is reflected in the way the team reacts to the sharing of knowledge as well as the exchange of ideas. It is better constructed when the team treats each other with dignity, which creates the feeling of mutual trust towards the strengths of each other.

Collaboration emerges as another cornerstone of effective learning in the public service. Recognizing that no single individual holds a monopoly on wisdom, agencies should champion teamwork and collective learning. Through cross-functional projects, interdisciplinary forums, and community engagement initiatives, public servants can contribute their perspectives and expertise to address multifaceted challenges with efficiency and creativity.

2.9.6 Create System to Capture and Share Learning

Once individual learning has occurred and been successfully transferred to the system level, the knowledge embedded in an organization is referred to as the dimension of the create system to capture and share learning. This dimension recognizes the need for high-tech and low-tech solutions to capture and share learning (Lyons, 2019). Watkins et al. (1996) proposed that high and low technology platforms for sharing learning are

developed and absorbed in work for this dimension. As a result, the organization must provide access and system maintenance so that employees may receive knowledge promptly and apply what they have learned (Watkins et al., 1996). Today's workplace environment requires effective systems as one of the dimensions vital for workplace learning interventions to succeed. Michna (2009) contends, "in order to maintain their knowledge and experience, enterprises (organization) should have and use constantly updated databases" (p. 363). The information system is very critical for employees to complete the learning cycle because it is an infrastructure that enables information to circulate through knowledge sharing and reduces the lost impact of brain drain. Hernandez's (2003) research findings that embedded systems are, in addition to empowerment, another predictor to display a clear connection with the internal transfer of knowledge. Hernandez's (2003) findings indicated that information technology was deployed as storage to retain all the knowledge produced by a series of learning exercises and provide access to others within the company that promotes sharing the knowledge. A well-kept information system would also allow employees to obtain accurate and up-to-date information on quality for analysis. McHargue (2003) recommended investment in technology that needs to be taken seriously.

To complement these efforts, it is important to establish a strong system for capturing and sharing learning. Whether through knowledge repositories, best practice databases or learning sessions learned, institutions should actively cultivate mechanisms to document insights and experiences. By doing so, they not only avoid repeating mistakes but also cultivate a culture of continuous improvement and institutional memory.

2.9.7 Empower People Towards a Collective Vision

Empower people towards a collective vision is a learning organization dimension in which employees are empowered to contribute to the organization's shared vision, be recognized for their contributions, and be able to see the organization's links to the broader environment. They must also be given the freedom to take chances to learn from their failures (Lyons, 2019) or mistakes to achieve the organization's vision. Watkins et al. (1996) said that people are involved in setting, owning, and implementing a joint vision in a learning organization, thus depending on many individuals' participation in a collective vision. Empowerment is required to kick-start the next learning process to produce ideas and experiences that can be continually enhanced and improved. Michna (2009) supported this concept by suggesting that trust (empowered employees) is a strong indicator apart from feedback, appreciation, and trustworthiness. These factors are believed to align employees' motivation, goals, and inspiration to join in a mutual effort to achieve the organization's vision. Management plays an important role in granting recognition and delegating authority to the employees to contribute to the organization's vision achievement.

Effective leadership plays an important role in empowering individuals toward a collective vision. By articulating a compelling narrative and uniting surrounding stakeholders around a common goal, government leaders can inspire commitment, resilience, and innovation. Through visionary leadership, public service agencies can overcome silos and leverage their collective wisdom to drive meaningful change.

2.9.8 Connect the Organization to Its Environment

Connect the organization to its environment is another component of the learning organization that is believed to impact continuous workplace improvement significantly. This dimension highlights that the learning organizations involved consider external stakeholders such as the customers and the general public and current outward changes as the vital connections that link the organization and impact the communities in which it operates and society at large (Lyons, 2019). According to Watkins and Marsick (1993), the learning organization acknowledges its dependence on its environment and must continuously interact with the community. Yang, Watkins, and Marsick (2004) believed that system interactions seemed more critical than embedded systems to predict the organizational outcome. The authors further clarified that the explanation is due to considering today's competitive and challenging business climate. McHargue (2003) shared his thoughts on the importance of learning from the external environment. The process will develop employees' capabilities and skills to better respond to clients. Organizations should therefore promote a different form of cooperation within the organization and include other external stakeholders and society (McHargue, 2003). As such, both individual learners and organizations are expected to benefit from developing an atmosphere that encourages strategic thinking within the employees that eventually brings valuable ideas for change back to the business to optimize the current processes.

Connecting the organization to its environment is essential for relevance and marketability. By remaining aware of societal trends, technological advances, and global developments, government agencies can anticipate emerging challenges and proactively seize new opportunities. Whether through collaboration with academia, collaboration with

industry stakeholders, or engagement with civil society, public servants should form external networks that enrich their organization's learning ecosystem.

2.9.9 Provide Strategic Leadership For Learning

The dimension recognizes the importance of having leaders who model, champion, and support learning in the organization. Learning is viewed as a strategy for achieving business objectives, and top management must acknowledge this (Lyons, 2019). Lohman (2006) indicated that when evaluating learning in the workplace environment, consideration of leadership is essential. Leaders must also guarantee that the organization's conduct is aligned with its principles (Watkins et al., 1993). Leadership support is of paramount importance at the organizational level because it enables knowledge to be passed through the value chain and offers encouragement and learning opportunities. Habidin and Yusof (2013) noted that successful leadership encourages employee engagement and dedication to quality improvement programs such as learning in the organization as well as promoting effective dialog inquiry and collaboration to ensure better exchange of information. Leaders, therefore, play critical roles as motivators and facilitators in understanding, promoting, respecting, and accepting the concept of lifelong learning at work. Furthermore, leaders, like any other key people in the organization who learn from their experience, influence others' learning and create an environment of expectations that shape and support desired outcomes that are, in turn, measured and rewarded to build a learning climate and culture (Marsick & Watkins, 2003). Leaders' power and encouragement in fostering a learning culture and developing a mentality of continuous improvement at the workplace is reflected and their ability to offer a strong sense of direction. McHargue (2003) offers valuable insights into the role of the leader by

stating "learning processes do not need to be costly and can be carried out at low cost but the support of the leader is of the utmost importance in this course of action, particularly in terms of the time spent" (p. 203). In addition, leaders play a significant role in offering organization resources to develop the learning skills of employees. Hence, leadership support is a source that guides employees throughout their learning process toward firm-specific directions to achieving sustained competitive advantage.

Strategic leadership for learning is essential in guiding public service agencies toward their full potential. By articulating a cohesive learning strategy, setting clear goals, and allocating resources effectively, leaders can cultivate a culture of learning excellence that reaches every aspect of the organization. Through their guidance and management, government leaders can set the course for sustainable growth, resilience, and innovation in the ever-changing public service landscape.

2.10 Learning Organization Characteristics

Numerous scholars have explained the characteristics of learning organisations. Kofman and Senge (1993) defined a learning organization based on three attributes as excellent humanity culture values: love, be humble, and pity; a set of good deeds to encourage concord action and affiliation; and have the ability and work as a system. Learning organizations, according to Garvin (1993), must have five core activities and skills: adapting history and experience for learning; experimenting with new approaches; sharing information effectively and quickly; use of another organization's insights and best practices, and adapting structured approach in problem-solving.

Senge (1990) characterized learning organization as “organizations where people continually expand their capacity to create results they desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p.464). Senge (1990) proposed the following characteristics in his famous book The Fifth Discipline: team learning - a method of concentrating on a group's ability to learn rather than an individual's to achieve several goals at the same time. He proposed five constructs to explain his mental model. The first constructs are the need for an individual's viewpoint to shift as a result of his experiences and actions. Then, it is system thinking, the ability to comprehend and view each episode as a system and evaluate each phenomenon that passes through the deepest structure. Personnel mastery is the personnel commitment, focus, and attitude toward change for organizational excellence, and shared vision is the employees' perception of future objectives achieved.

Gephart, Marsick, Van Brumen, and Spiro (1996) characterized learning organization as continuous learning; versatile spirit; emphasis on human capital; promoting knowledge sharing; systemic critical thinking; learning culture, rewarding, supporting, and adapted creativity; and learning for promotion purposes. Each scholar believed in different learning organization characteristics but admitted both knowledge sharing and readiness to change as part of learning organization attributes. For instance, Garvin (1993) and Gephart, Marsick, Van Brunen, and spiro (1996) both believed in knowledge sharing as one of the learning organization pillars, while Senge (1990) agreed readiness to change must be embedded as learning organization characteristics. However, they were failed to address the importance of adapting to new technology as an important characteristic of the learning

organization. This can be understood as, during these scholars period, modern communication tools such as social media and internet facilities have not emerged yet as important technology such as today that significantly influence an organization's ability to become a learning organization. An ability to adapt to new technology such as social media is important to the public sector. This is due to the notion that the public sector is considered an organization of slow and bureaucratic nature. As such, the public sector's ability and commitment to embrace social media as part of the service delivery mechanism is important to meet increased demand and improve public expectations.

2.11 Learning Organization Levels

According to Watkins and Marsick (1993, 1996, 1997), organizational learning is divided into three levels: individual, team or group, and organizational. Each of these three levels has its own set of dimensions. The individual level is composed of two dimensions that are continuous learning and dialogue and inquiry dimensions. At the individual level, it is described as “all learning takes place inside individual human heads” (Haque, 2008, p. 40). Similar to that note, other scholars such as Marsick and Watkins (2003) contend that learning at the individual level is a natural process of discovering challenges, selecting tactics based on individuals' attitudes and feelings, and comprehending and evaluate the effectiveness of the tactics. Hence, it can be understood that learning is happening in an individual circle. Therefore, learning at the individual level is a small step that leads to becoming a learning organization. As suggested by previous scholars, “individual learning is a necessary but insufficient condition for organizational learning” (Haque, 2008, p.40). Senge (Haque, 2008) contends, “individual learning does not guarantee organizational learning, but without its no organizational learning occurs” (p.40).

Individual learning, according to Marsick and Watkins (2003), begins with a discrepancy in an individual's environment, where "disjunctures, discrepancies, surprises, or challenges act as triggers that stimulate a response" (p. 134). Individuals react in this way based on their comprehension of the trigger. Individual views, values, prior experiences, and the social context influence their actions, as does their ability to act based on their talents, resources, and access (Marsick & Watkins, 2003).

Individual-level learning and organizational-level learning are linked through group-level learning. Learning that has been successful on an individual level readily transfers to a group level, where it becomes a collaborative, interactive process (Lyons, 2019). The ability of the group members to interact and work together effectively is regarded as a component of their success in addressing issues. Team learning is composed of team learning and collaboration dimension.

Environmental factors such as technology advancements, competitive challenges from other companies or organizations in the market, economic forces, and customer feedback all influence learning at this level. Members of the organization work individually and collaboratively to develop solutions to problems, scan the internal and external environment, and filter information via the organization's culture (Lyons, 2019). This process leads to organizational learning, which results in developing new capabilities, knowledge, procedures, or technology. The organizational learning level is composed of four dimensions: embedded systems, systems connections, empowerment, and provision of leadership for learning. The dimensions that represent each level are shown in **Table 2.1.**

Table 2.1: Learning organization level

Learning organization level	Dimension(s)
Individual level	Continuous learning and dialogue and inquiry
Team or group level	Team learning and collaboration
Organizational level	Embedded systems, system connections, empowerment, and provision of leadership for learning

2.12 Critical Factors Influenced Learning Organization

There are critical factors that influence organizational learning. These critical factors are structure, environment, strategy, culture, leadership, and technology (Najafbagy & Doroudi, 2010). Marquadt (2002) argues that technology is critical in influencing learning organizations. Information and communication technology (ICT) can help ensure a seamless information flow within an organization as well as ensure that critical information is relayed efficiently and smoothly. Employees' competency and effectiveness are thought to be influenced by a smooth information flow in the organization (Najafbagy & Doroudi, 2010). Knowledge that could assist civil servants in improved learning could be obtained by the use of social media. As a result, it aids civil servants in learning more quickly and effectively.

The environment is the second aspect to consider. An organization's capacity to adapt to changing environments can give it a competitive advantage as well as allow it to survive (Marquadt, 2002). The world in which organizations operate now is substantially different and more complex than it was. This was linked to a range of factors, including technological advances, causing quick shifts. As a result, civil servants were pressed to learn as quickly as possible, whether through formal or informal means. Civil servants

need to adapt to change as soon as possible as it can improve organisational performance and increase customer satisfaction.

The organization's culture is the third factor to consider. The bureaucratic system of government is well-known. According to Schein (1994), this scenario does not foster organizational learning because it allows workers to think in silos (unit). As a result, learning is at a minimum level, as hierarchical organizations are unable to facilitate and promote a learning culture (Najafbagy & Doroudi, 2010).

2.13 The Dynamics of Learning Organizations in Public Service and Government Department

The landscape of public service and government departments is constantly evolving and adapting to changes in policies, technology, and societal demands. The concept of a learning organization has become increasingly relevant in this complex environment. Even if the term "learning organization" is not always explicitly used, the continuous adaptation to external factors, such as advancements in communication technology, social media's pervasive influence, and the current socio-political landscape, suggests an inherent commitment to organizational learning.

While the catalysts for change within these departments are multifaceted, they are often driven by external factors that require a process of continuous learning to adapt to evolving circumstances. The Covid-19 pandemic in 2020 provides a compelling example of the learning organization concept in action within Malaysian government departments. When faced with unprecedented challenges, the government swiftly implemented a

nationwide Movement Control Order (MCO) to curb the spread of the virus. Civil servants, like the rest of the population, were constrained in their movements, leading to the closure of government offices. During this period, civil servants transitioned to remote work, effectively using social media platforms such as WhatsApp and Telegram for communication. This adaptive response to the crisis embodies the essence of a learning organization. By embracing new ways of working and utilizing technology effectively, government departments demonstrated their ability to learn and adapt swiftly to the latest needs imposed by the situation.

The principles of a learning organization enable these entities to evolve continuously, ensuring relevance and optimizing service delivery to the public. This assertion aligns with Atanassova and Bednar (2022) perspective that organizational learning is crucial for survival and growth during uncertain times. Although there is no uniform definition of a learning organization, the literature suggests that government departments exhibit characteristics inherent to such entities. Ahmad and Yunus (2012) argue that the definition of a learning organization is intricately linked to the specific characteristics and nature of the organization. They posit that the impetus for an organization to transform into a learning organization is contingent upon its current environment.

The dynamic nature of learning organizations, as underscored by these scholars, suggests that adaptability and contextual responsiveness are integral components. Historical studies shed light on the unique challenges of organizational change within government agencies. Brown and Brooks (2002) contend that such changes are inherently influenced by the organizational context, culture, and purpose. Moreover, the public sector

is held accountable to various stakeholders, including politicians, society, media, non-profit organizations, and bureaucracy. The intricate interplay of these factors, contributes to the perception of the public sector as inefficient, sluggish, and inflexible in service delivery. In conclusion, the literature suggests that government departments exhibit characteristics inherent to learning organizations, despite the absence of a uniform definition. The dynamic responses to external challenges, as seen during the Covid-19 pandemic, exemplify the adaptability and learning orientation within these organizations. Understanding and embracing the principles of learning organizations can foster sustained relevance and excellence in public service delivery.

2.14 The Benefits of Learning Organization for Government Departments

Public service organizations operate in a dynamic environment, and a learning organizational is an effective strategic framework that offers numerous benefits. This corporate ethos prioritizes continuous employee development, skills improvement, and innovation opportunities. It is a catalyst for positive change within public service entities.

A learning organizational stimulates innovation within public service organizations by encouraging employees to think outside conventional boundaries. It fosters an environment where new ideas are welcomed and sought after, resulting in practical solutions, improved processes, and increased problem-solving abilities. Employee growth and development are directly impacted by an organizational culture that prioritizes learning. Employees who are empowered with opportunities to enhance their skills and knowledge are more engaged and motivated, leading to increased productivity and improved performance. This contributes to the overall efficacy of public service organizations.

A learning organization equips employees with the necessary tools and knowledge to adapt swiftly to changes in policy, regulations, and technology. This mindset of continuous learning contributes to increased agility and responsiveness, ensuring public service entities remain relevant to current situations and needs. A positive and supportive learning organizational culture increases employee retention rates. When employees feel valued, supported, and recognized for their commitment to learning and self-growth, they are more likely to stay with the organization long-term. This stability within the workforce leads to a more cohesive and effective public service environment.

Exceptional customer service is reliant on knowledgeable and skilled employees. By investing in continuous learning and development, public service organizations equip their teams with the ability to deliver high-quality service. This, in turn, leads to increased customer satisfaction and loyalty, both of which are critical factors in the success and reputation of public service entities. Creating a learning organizational culture requires intentional efforts. Public service organizations can foster this culture by encouraging open communication and feedback channels, recognizing and rewarding employees committed to learning and self-growth, and promoting the sharing of knowledge, ideas, and the department's vision and mission among team members.

A learning organizational culture is not merely a theoretical concept but a practical approach with tangible benefits for public service entities. By embracing this culture, organizations can unlock innovation, boost productivity, enhance adaptability, improve employee retention, and elevate customer service. In a rapidly changing world, the adoption of a learning organizational becomes not just a strategic choice but a necessity for

sustained success in the public service sector. One of the ways is to take advantage of communication technology.

Modern communication technology tools, such as social media, are increasingly being used as a platform for professional learning and advancement. The learning process among government departments and civil servants is different and unlike learning in the classroom. Learning organization here means that the civil servant is learning from mistakes that have been made, problems that have arisen, and past solution steps that have been taken. In addition, it can be learning as a result of formal and informal discussions or meetings. Furthermore, experiences gained from events management organized or attended by the government departments can also be part of learning in the organization. Learners use social media sites like Facebook, Instagram, YouTube, and Twitter extensively (Donelan, 2016; Lord & Lomicka, 2014; Seechaliao, 2014). According to conventional learning theories such as cognitivism, behaviourism, and constructivism, learning is psychological. Traditional learning theories assume that the person is the epitome of understanding. When different nodes consisting of various individuals or, in this study context are, civil servants are connected and contribute various knowledge and useful information that allows learning to be produced. Knowledge is seen as infinite and spreads widely over network links, that is, nodes. Online networking or nodes allows people from various demographics to converse and interacts with one another. Online social networking appears to be ingrained in the lives of these learners today. Facebook and YouTube, according to Donelan (2016) and Seechaliao (2014), are very popular among learners. In today's context, where social media circulates civil servants, and the general public's daily

routines, Donelan's (2016) and Seechaliao's (2014) arguments are certainly in the correct position.

The possibilities for using social media to learn and educate civil servants are endless and full of potential. According to Seechaliao (2014), for instance, the lecturers in higher education believe that social media enhances teaching and can be valuable resources for collaborative learning. In their studies, Oakley and Pegrum (2015) discovered that unexpected and unimagined professional learning occurred when lecturers interacted unofficially with colleagues and students. As such, this networking of knowledge and skills among contemporaries, students, and even larger learning communities can be used to complement formal education. Learning today transcends traditional learning environments that only occur in classrooms or lecture halls. Learning today requires facilities such as the internet, smartphone, desktop, and laptop to access information on the internet from various sources, including videos, photos, infographics, posters, personal postings, data, and articles. Therefore, the learning that exists today is the learning at the fingertips of human beings and does not recognize the world's boundaries, time period, education background, language, race, nationality, skin color, social status, etc.

Social media has provided a handy platform for the purpose of learning among civil servants. Social media platforms like YouTube, Facebook, WhatsApp, Telegram, and others are indeed helpful. These social media platforms provide a variety of content such as videos, uploads, downloads, and sharing various useful documents. The existing internet facilities coupled with the smartphone have enabled a civil servants to learn virtually. Indeed, civil servants learning via social media complemented by the wide range of services backgrounds, experience, and expertise provide opportunities and space for civil

servants to exchange views, thoughts, etc, that enhance learning. This diversity, wealth of experience, and knowledge accumulated among these civil servants make learning beneficial in the departments. McCoshan (2018), in his blog article titled “Social media in adult learning: benefits and uses” suggested four reasons for using social media for adult learning: flexibility, stimulating collaboration, real-world connectivity, and involving learners in finding and sharing resources.

Social media platforms are openly accessed and can be utilized all the time. Civil servants can access social media for information anytime and anywhere as long as they possess communication devices such as smartphones and are connected to internet services. These facilities help civil servants respond and conduct discussions in real-time besides solving problems instantly rather than waiting until further. As such, social media provides civil servants with platforms benefiting both employees and organizations or departments.

Social media platforms are designed for human communication and people interaction. Therefore, it is no surprise that they can be ideal for connection and interaction among the civil servants, thus, helping collaboration in learning. This is not just a matter of “teacher-learner interaction” but enabling learners that are civil servants to work together and support one another for the departments' benefits through a healthy collaboration.

Social media is pervasive in our daily lives. This has the potential to be a massive benefit in terms of making learning more real-time for civil servants. This to benefiting civil servants and departments as they could interact mutually not just with colleagues but also with experts around the globe efficiently. Hence, civil servants can be equipped with

the current or latest information, knowledge, skills, and expertise could that helping them to execute routine and daily tasks efficiently and urgently.

The real-time or real-world connectivity of social media has the additional effect of allowing colleagues to be directly involved in the discovery and sharing of resources. The emergence of social media as a primary communication tool or platform has given learners the opportunity for differentiated and personalized learning (Wagner & Wilson, 2005; Attwell, 2007). Social media tools such as Facebook and Twitter provide civil servants with a mass information flow that indirectly contributes to personal knowledge and learning capability. Social media unfold learning flexibility besides "makes learning resources and methods increasingly distributed, varied, and personalized (sic) across temporal and spatial places" (Looi & Toh, 2014, p.163).

Nowadays, learning through social media is increasingly getting uprising momentum. Learning through social media provides civil servants with fast and free information flow. This "freedom" allows learners to communicate online even though they do not possess specialized skills. This factor contributes to social media popularity among the netizen community, particularly for personal learning. The emergence of social media tools provides learners with a new learning method. This is due to social media's ability to engage not only in communication but also collaboration and interaction. The social media incorporation in organizational learning "will bring organizations focus in their learning environments" (Bersin, 2009). Therefore, according to Rice (2011), "social media also give the organizations the opportunity to enhance learning through peer-to-peer networks" (p. 75), besides allowing people in the organization to share information and create knowledge banks.

2.15 Knowledge Sharing

The sharing of knowledge is a vital force that drives societies forward. In the digital age, where information is easily accessible, knowledge sharing is more important than ever. Innovation is driven by knowledge sharing, which pushes the limits of what is possible (Tassabehji, Mishra, & Dominguez-Péry, 2019; Arsawan, Koval, Rajiani, Rustiarini, Supartha, & Suryantini, 2020). In environments where ideas can flow freely, breakthroughs are more likely to occur. For example, open-source initiatives, interdisciplinary research, and collaborative projects demonstrate the power of shared knowledge. The development of Linux, a widely used open-source operating system, is an example of how collective intelligence can lead to groundbreaking solutions (Xia, 2010).

Knowledge sharing is also the foundation of careers. Mentorship and peer learning are essential in acquiring skills and expertise. In workplaces that prioritize knowledge sharing, employees experience continuous professional growth (Akbari, Younesi, Zohoori, & Sardroudi, 2017; Oyemomi, Liu, Neaga, Chen, & Nakpodia, 2019). The exchange of insights and experiences accelerates individual growth and contributes to the overall success of the organization. Companies such as Google are renowned for their cultures that foster innovation through knowledge sharing among employees.

On a global scale, knowledge sharing plays a crucial role in addressing complex challenges (Song, 2002; Ajibade, Ondari-Okemwa, & Matlhako, 2019; Virgilio, 2021). In fields such as science, medicine, and technology, international collaboration facilitated by knowledge exchange accelerates progress. Global initiatives like the collaborative efforts to combat climate change underscore the importance of shared knowledge in solving

problems that transcend borders. Moreover, shared knowledge promotes cultural understanding, bridging gaps and fostering a sense of unity in our diverse world.

There are common barriers to knowledge sharing that need to be addressed. Establishing a culture of openness and trust is essential in overcoming reluctance to share information (Chan, Logan, & Moses, 2020; AlShwayat, MacVaugh, & Akbar, 2021). Technological solutions, such as collaborative platforms and knowledge management systems, can also facilitate seamless knowledge exchange (Abdullah, Almalki, & Blahmer, 2018); Manal, 2019; Haasz, & Baracskai, 2022). By recognizing and addressing these barriers, organizations and communities can unlock the full potential of shared knowledge.

In conclusion, the importance of knowledge sharing cannot be overstated. It is the driving force behind progress, fostering innovation, driving professional growth, strengthening communities, and contributing to global well-being. Embracing a culture of open communication and collaboration is essential for unlocking the full potential of shared knowledge in our interconnected world. As we continue to advance, the power of shared knowledge will be the driving force behind a future defined by progress, understanding, and collective achievement (Shevchenko, & Shevchenko, 2005).

2.16 Defining Knowledge Sharing

Knowledge sharing is defined as a behavior that usually refers to the process where individuals or groups share or transfer ideas, opinions, information, skills, experiences, and expertise with other individuals or parties such as colleagues, common acquaintances, family members and so on (Charband & Navimipour, 2016; Mustika et al., 2022). The concept of knowledge sharing is a critical component in many organizational and societal

structures with profound implications for intellectual growth, innovation, and overall performance improvement (Zheng, 2017; Radosavljević, 2022). Generally, knowledge sharing is often defined as an interaction that supports the transfer of information and experience from one party to another which is then translated into practical application in a specific and appropriate context.

Knowledge sharing can be seen from two main dimensions which are formal and informal. The formal dimension includes activities such as training, seminars and structured documentation (Reychav & Te'eni, 2009). These activities are often supported by organizations to ensure that critical information is disseminated in a systematic manner. On the other hand, informal knowledge sharing occurs through everyday interactions, discussions between colleagues and social networks that allow knowledge to be exchanged naturally and spontaneously (Caruso, 2016). These two dimensions complement each other in an effort to spread and apply knowledge effectively (Jing-bing, 2009).

The importance of knowledge sharing can be seen in many different contexts and situations. In the organization, it is seen to help avoid repetition of efforts by ensuring that the information that has been obtained does not need to be repeated from the beginning. This not only reduces time, energy and cost, but also increases operational efficiency (Yeboah, 2023). In addition, knowledge sharing supports continuous learning where individuals can acquire new skills and understand best practices (Ahmad & Karim, 2019; Yeboah, 2023). In the long run, this contributes to improved individual and organizational performance.

Innovation is one of the main results of knowledge sharing (Wang & Wang, 2012). By combining diverse views and ideas, organizations can produce new solutions and improve their products or services (Mathrani & Edwards, 2020). These new discoveries are often the result of knowledge sharing processes that enable adaptation and innovation in work practices.

However, success in knowledge sharing depends on several critical factors. These include trust, openness and willingness to share, access to relevant information sources, as well as an organizational culture that supports and values this process (Fullwood, Rowley & McLean, 2019; Shang, 2014; Chang & Chuang, 2011). In addition, modern technologies such as knowledge management systems and online collaboration platforms play an important role in facilitating and speeding up the knowledge sharing process (Lee et al., 2020).

Therefore, knowledge sharing is an element that cannot be taken lightly in individual development and organizational success. With a strategic approach and support from all parties involved, this process can provide significant benefits in the form of increased efficiency, continuous innovation, and sustainable progress in various areas.

2.17 Knowledge Sharing and Organizational Success and Efficiency

Sharing knowledge is a critical aspect of organizational success and can significantly increase effectiveness and efficiency. According to Kashari and Taheri (2020), organizations that encourage knowledge sharing among employees tend to have a more productive and efficient workforce. Additionally, knowledge sharing leads to

increased learning opportunities for employees and can help organizations adapt more quickly to changes in their industry. Furthermore, Iabbassen, Shekaili, and Marzouqi (2022) found that knowledge sharing can enhance company efficiency by improving decision-making processes and reducing duplication of efforts. By sharing their expertise and experience, employees can collaborate more effectively and identify best practices that can be scaled across the organization.

Promoting knowledge sharing within organizations is crucial for achieving long-term success, and companies that prioritize this practice can gain a competitive advantage in their industry. Organizations consider knowledge sharing to be a crucial factor in achieving success and efficiency. Knowledge sharing is believed to make organizations more adaptable, innovative, and intelligent. Neurink (2013) categorizes knowledge sharing into three pivotal dimensions: frequency, quality, and quantity. The frequency of knowledge sharing refers to the number of instances it occurs, while quality entails the appropriateness of the shared information. Quantity, on the other hand, encapsulates the completeness, credibility, accuracy, timeliness, and adequacy of the shared knowledge. Knowledge sharing, as elucidated by Neurink, can manifest directly or indirectly, encompassing work-related knowledge and skills. Kim and Ju (2008) conducted a noteworthy study in the realm of higher education, unraveling primary factors influencing knowledge sharing on campuses. Trust, perception, openness in communication, collaboration, reward systems, and communication channels emerged as pivotal influencers. Strikingly, the study identified perception as the most influential factor in knowledge sharing on campuses.

Contrarily, Alam's (2009) study, focused on small and medium enterprises in Malaysia, echoed the significance of trust in facilitating knowledge sharing, aligning with Kim and Ju's findings. However, the landscape is not devoid of nuances, as Hareya's (2011) research introduced a diverse array of factors such as IT infrastructures, personal benefits, management problems, attitude and willingness of individuals, and skills and knowledge storage mechanisms. While Alam (2009) aligns with Kim and Ju's (2008) emphasis on trust, Hareya's (2011) findings introduce a layer of complexity. The divergence in results highlights that the factors influencing knowledge sharing may vary across different organizational contexts. Inconsistencies in research findings underscore the need for organizations to consider their unique circumstances when formulating strategies to enhance knowledge sharing. Moreover, Hsieh et al. (2011) found organizational culture to be a dominant factor in knowledge-sharing, which is inconsistent with Rad et al.'s (2011) finding that organizational culture did not influence knowledge-sharing. Therefore, it can be concluded that factors that influence knowledge-sharing vary depending on the context of the studies.

As such, it is crucial for organizations to create and share knowledge. Knowledge is information personalized by positive relationships and help (Alavi & Leidner, 2001; Hansen and Haas, 2001). The collective knowledge and capacity to know reflect an organizational intellectual resource, which can be used to gain a competitive advantage (Nahapiet & Ghoshal, 1997). Combining previously unconnected elements or inventing new ways to combine previously connected elements is how knowledge is produced (Moran & Ghoshal, 1996).According to Nonaka (1994), the two dimensions of knowledge are explicit and implicit. Explicit knowledge is codified and stored in separate terms or

numbers in libraries and databases. On the other hand, Tacit knowledge provides the basis for creating and comprehending explicit knowledge (Alavi & Leidner 2001). Since tacit knowledge is not codified, it is more difficult to express. Tacit knowledge development is a continuous process where individuals share their experiences to better understand one another (Nonaka 1994).

Knowledge must be generated regularly in order to be shared on a routine basis. Knowledge may take several different forms depending on the organization and the person inside it. Nonaka (1994) proposes that knowledge is generated through a continuous period of conversion between tacit and explicit knowledge, externalization converts tacit knowledge into explicit knowledge by codification, socialization creates tacit knowledge from other tacit knowledge through shared experiences, internalization is the conversion of explicit knowledge into tacit knowledge for individual learning' and combination is the creation of explicit knowledge from other explicit knowledge by sorting, integrating, and categorizing from exchanges with others.

Knowledge can be viewed as an object because it can be gathered, stored, and transferred like an object (Alavi & Leidner 2001). Knowledge can also be thought of as a mechanism because it can be generated, exchanged, and disseminated. Knowledge can be understood through the lens of practice in ways beyond development or delivery, such as consumption and mutual engagement by workers and groups within the institution (Brown & Duguid, 2001).

In previous research, knowledge sharing was also defined as the process by which group members informed each other of missing content required for decision making

(Miranda & Saunders, 2003). Knowledge sharing can also be defined as an individual knowledge transmission process that results in individual knowledge processing to produce cognitive understanding (Dennis et al., 2008; Miranda & Saunders, 2003; Robert & Dennis, 2005). Stronger network ties, collaboration, and group members' tenure working with one another all positively impact knowledge sharing (Kane & Alavi, 2008).This is true and relevant today with the availability of social media platforms that provide extensive and effective network ties between employees in the organization.

Previous research has found that motivations for knowledge sharing vary depending on the context. Individuals who contribute their knowledge to open source software development projects, for example, are motivated by reputation-building and self-development goals (Oreg & Nov 2008). Wikis, online forums, consumer reviews, and collaborative website tagging, on the other hand, are motivated by altruism (Oreg & Nov 2008). The context for knowledge sharing through social media can also vary within an organisation. The motivations of reputation and altruism assume that an individual's knowledge will be consumed by others who seek that knowledge. As a result, if a person believes that other people consume the knowledge they create, these influences are more likely to be enhanced (or reduced).

Individuals (employees) and teams may use knowledge sharing to solve problems, formulate new ideas, enforce policies and procedures (Wang & Noe, 2010), and disseminate and refine existing knowledge (Wahab, Rose, & Osman,2012).) to execute tasks in order to achieve goals with effective. Knowledge sharing activities involve three basic factors: individual, organizational, and technological (Azlyn, Zaherawati, Nur Zafifa, Nazni, Mohd Zool, Natrah, & Nurul Shahida (2011).; Rad et al., 2011). An individual

factor is a desire and consideration to voluntarily share their opinion (Azlyn et al., 2011). Organizational factors comprise organizational culture (vision and goals, beliefs and social networks), and organizational structure (centralization, formalization, and reward-based performance). Technology is an intermediary factor (such as social media) in knowledge sharing (Cheng, Ho & Lau, 2009) as it is a catalyst for such activities (Azlyn et al., 2011). Technology typically refers to the application of information and communication technology (ICT) (software or hardware) to perform tasks (Ismail & Mohammad Yusof, 2008; Azlyn et al., 2011; Rad et al., 2011) and share individual explicit knowledge with another person or other explicit knowledge (van den Brink, 2003). This includes the internet, Web 2.0, and social networks including social media (Turban et al., 2011).

2.18 Knowledge Sharing In The Public Sector

In today's fast-paced and changing world, knowledge is more critical than ever and organizations that can share it effectively within their organization are more likely to stay relevant and excel (Cash & Belloy, 2020). This is especially true in the public sector, where the stakes are high and the need for innovation and efficiency is paramount. Failure to master it is likely to be a contributing factor to the decline of a government department.

Knowledge sharing is a process of exchanging information, skills and experience between individuals or groups in an organization (Islam & Khan, 2014). In the public sector context, it can help promote collaboration between staff, improve decision-making processes and improve the effectiveness of service delivery systems (King, 2011). There are several reasons why knowledge sharing is important in the public sector and they include promoting collaboration. Knowledge sharing practices can help break down

organizational silos and encourage open collaboration. When employees share their knowledge, skills and expertise, it makes them more willing to work together to solve problems and achieve shared goals. Collaboration is particularly important in the public sector where various departments, agencies and stakeholders need to work together to deliver services and achieve policy objectives.

The most recent knowledge sharing study investigating knowledge sharing behavior in public service organizations is by Rasdi and Tangaraja (2020). Their study investigated the determinants and roles of affective and normative commitment. The researchers argue that extensive research into knowledge management in the Western context has resulted in relatively few studies appearing in Asia. The objective of their study was to explore the predictors of knowledge sharing behavior among Malaysian public service administrators. To achieve this goal, the researcher designed a survey-based study using a predetermined instrument, which resulted in 231 responses from administrators of various management grades. The results of the study show that factors of intrinsic motivation, time availability, and organizational socialization are predictors of knowledge sharing. Furthermore, the findings show that affective commitment to the organization is a critical mediating factor that enables intrinsically motivated administrators to engage in knowledge sharing. The findings of this research are in line with Lewin's theory, emphasizing the importance of willingness to change. Since the willingness to change is the backbone of an individual, most of the skills and experience of employees are underutilized because the company has a poor understanding of the knowledge of its own employees (Neurink, 2013). When employees leave the organization due to retirement or moving to another company or business, their expertise is lost.

Therefore, by acting to keep the knowledge or experience of employees is important as an effort to make it an asset to the organization or department.

Knowledge sharing is very important in the public sector (Sandhu, Jain, & Ahmad, 2011). It plays an important role in improving the decision-making process, improving the effectiveness of the service delivery system and improving organizational efficiency. Therefore, it can be observed that making good decisions depends on having the right information at the right time. This is why knowledge sharing is important as it ensures that decision makers are better informed, thus leading to better decisions. This situation is particularly important in the public sector, where policy decisions can have far-reaching effects and therefore having access to accurate and timely information is essential.

In addition, knowledge sharing can also assist public sector organizations in improving and improving service delivery systems and responding more effectively to the needs of the people (Wright & Taylor, 2005). Therefore, by learning from each other, organizations can identify and adopt best practices, streamline processes and develop new service offerings that better meet people's needs based on current needs. This approach is also seen as very helpful for public sector organizations to ensure that they adhere to the highest standards of public service delivery that meets customer needs.

Furthermore, knowledge sharing can help organizations avoid duplication of effort and reduce the time and resources needed to complete a task. In the public sector, where resources are often limited, improving efficiency is an important solution to deliver services effectively and achieve policy objectives. As a result, by improving efficiency, public sector organizations can allocate their resources more effectively and ensure that

services are delivered in a timely and cost-effective manner (Bibolli, Trunk Širca, & Mirazchiyski, 2021).

To implement an effective knowledge sharing strategy, leaders must also create a culture that values knowledge sharing (Walczak & Zwart, 2021). This can be achieved and implemented through training, incentives, recognition, and communication approaches. In addition, leaders should also model knowledge sharing behavior and encourage their staff to do the same. With this approach, it is able to ensure that employees see the value in sharing knowledge and are encouraged to do so.

In addition, technology can also be used to facilitate knowledge sharing, thus, making it more accessible and efficient (Hutasoit, Elisabeth, & Sensuse, 2020; Eriksson & Chatzipanagiotou, 2021). Platforms such as social media networks can help employees to share information and collaborate more effectively. Organizations should also strive to invest in knowledge management systems that enable employees to capture, store and share knowledge effectively. The system should be user-friendly and accessible to all employees regardless of their job grade or level of technical expertise.

Promoting communities of practice is another effective way to facilitate knowledge sharing and collaboration. A community of practice is a group of individuals with a common interest or expertise who come together to learn from each other. Public sector organizations can promote communities of practice to facilitate knowledge sharing and collaboration. Communities of practice can also help organizations identify emerging trends and best practices in their field (Buckley, Majewski, & Giannakopoulos, 2016).

Finally, organizations should also provide relevant training and support in an effort to help employees develop the skills necessary for effective knowledge sharing (Caruso, 2016). It can include training on knowledge management systems, communication skills and collaborative problem solving. Additionally, investing in knowledge management systems, such as databases, intranets and knowledge repositories, can enable organizations to effectively capture, store and share knowledge. By providing the necessary appropriate tools, training and support, public sector organizations can ensure that knowledge sharing becomes part of their organizational culture and leads to better decision-making, improved service delivery and increased efficiency.

As a conclusion, in the public sector, knowledge sharing is critical to promoting collaboration, improving decision-making, enhancing service delivery, and increasing efficiency. By implementing effective knowledge-sharing strategies, organizations can create a culture of collaboration and innovation that enables them to achieve their goals and better serve their citizens. Public sector leaders should encourage their staff to share their knowledge and expertise, invest in technology and knowledge management systems, and promote communities of practice to facilitate knowledge sharing and collaboration. By doing so, they can help their organizations stay ahead of the curve and deliver better outcomes for their citizens.

2.19 Technology for Knowledge Sharing

According to Tausczik and Huang (2020), modern technology and communication platforms have played an important role in enabling the open exchange of knowledge. In today's world, the use of technology, including sharing platforms and IT applications, is

becoming more and more popular because it helps increase efficiency in knowledge sharing (Oanța, 2020). These technological tools have facilitated the development of similar platforms by providing a framework to build upon. As a result, knowledge sharing becomes more accessible, user-friendly and efficient. In addition, technology has also revolutionized the way of communicating and sharing knowledge with each other. The popularity of technological tools such as social media has led to an increase in knowledge sharing. People can now share their ideas, information, thoughts and opinions quickly, quickly, effectively and easily with others regardless of their location or time zone. This situation has created a more connected and informed society, where information is more easily available and accessible to everyone.

The rapid development of communication platforms has influenced the knowledge sharing behavior of individuals (Mladenović & Krajina, 2020), and this includes social media. In recent years, the number of social media users around the world has grown rapidly and blossomed. Social media features that are so attractive and easily accessible, in addition to not charging any fees, make it quite user-friendly (Hussain, 2020). The uniqueness of social media that allows its users to communicate with others around the world and without time boundaries has successfully attracted the interest and interest of users to use this technology. Currently, it is estimated that approximately 3 billion people use social media worldwide (Schønning et al., 2020).

Social media is spearheaded by digital technologies such as smartphones that are facilitated by the internet. The advantages provided by social media have allowed for easy access to information and enable easier accessibility and retrieval of data anywhere and at any time (Mefolere, 2016). These advantages can help create civil servants with bloated

information that allows them to practice knowledge sharing culture. Social media has opened up space and opportunities for faster, efficient, comprehensive, and convenient communication. Public service and government departments increasingly adopted social media for knowledge sharing and communication purposes among civil servants. This includes sharing documents, information, photos, videos, audio, etc. Apart from that, social media advantages have been tapped by government departments for service delivery mechanism that includes information conveyancing and feedback digging from the public. This is supported by MAMPU (2009), which states that social media is an effective communication channel that has been widely used by the government and private sectors in and outside the country to communicate and share relevant information.

Knowledge sharing is a state where government departments share knowledge and information for the department's benefit. It is a two-way act involving knowledge recipient and knowledge donator. Knowledge shared by civil servants is not limited to formal knowledge but also informal knowledge and information obtained outside the department. Social media is believed to help enhance knowledge sharing practices among employees, as it improves organization performance that spearheads its competitive advantage (Bornhofen, 2012). The influence of social media affected private or public service and general society as well. As such, social media has influenced how users communicate and businesses operate (Mefolere, 2016). Therefore, it is not an odd event as social media is increasingly used in enhancing public service delivery. Social media has influenced the way of communication in public service that has never been seen before. The presence and emergence of social media have made communications between government departments and the public open and fast (Karakiza, 2015). It is supported by the statement from the

former Director-General of Public Service Malaysia, Tan Sri Mohd Khairul Adib Abd Rahman, during the 2021 Director-General of Public Service Mandate Ceremony in which he said online services need to be further enhanced as the current generation is information technology literate (*Jabatan Perkhidmatan Awam*, 2021).

Knowledge sharing through social media provides civil servants with fast and free information flow. This freedom allows civil servants to share and communicate information online even though they do not possess any specialized skills. Knowledge sharing incorporates social media usage, including mobile browsing and video sharing (Rice, 2011). The success of online knowledge sharing thus depends on several factors, such as social interaction. The advantages of social media that enabled each civil servant to interact with their colleagues have enabled communication among civil servants to occur without any time limit and location restrictions. Therefore, social media can help to avoid knowledge depreciation. As it can spread or share knowledge faster, it can reach its receiver as fast as possible. One way to avoid knowledge depreciation is by making online knowledge sharing culture. Sundaresan and Zhang (2016) defined the concept of online knowledge sharing as an action to share and exchange knowledge by using technology (social media) to share knowledge besides creating understanding or enhancing performance. Their findings also revealed that the basic elements related to online knowledge sharing consist of online technology platforms, technology for communication, technology to create knowledge, and technology for knowledge sharing.

Chatterjee, Rana, and Dwivedi (2020) conducted one of the most recent studies on knowledge sharing via social media in India's higher learning institutions. Their study sought to comprehend the factors that influence academics' knowledge exchange intentions

and behavioural nature through the use of social media. Their study used a quantitative approach and was validated through a survey of 320 usable respondents. Chatterjee, Rana, and Dwivedi (2020) discovered that higher education institutions understand the value of knowledge sharing and use social media to facilitate knowledge exchange. As a result, it is possible to conclude that knowledge sharing is important because it benefits both individuals and organisations.

In the context of government departments and organizations in Malaysia, the latest study involving social media applications is by Salleh, Basir, Salman, and Omar (2019). This study examines the importance of social media applications in transforming the information delivery system of a residential college in a local university into governance with students and external parties. The study has used quantitative methods with 403 respondents from students, university staff, and residents around the state of Selangor. This study has found that respondents use social media applications as a medium to communicate, find information and share various things with their target audience. The study of Mohamad Salleh et al. (2019) is also supported by Saleh, Tengah, and Saipudin (2018), who has examined how WhatsApp applications are used in organizations and employees' perceptions of application use.

2.20 Different Types of Knowledge to Share

The world of public service is vast and varied, with public servants sharing a wealth of information and expertise. This knowledge spans a wide range of topics, from institutional and legal insights to procedural know-how, policy savvy, and technological proficiency. It forms the bedrock of effective governance, allowing public servants to make

informed decisions that benefit their communities. Recognizing the importance of knowledge sharing in the public sector is essential for fostering a culture of innovation, continuous improvement, and responsiveness to the ever-changing needs of the community. As aspiring public servants, it's vital to actively participate in knowledge sharing initiatives and strive to become well-informed and skilled professionals who can meet the challenges of the public sector head-on.

There are different types of knowledge that exist and can be classified based on various factors. One way of categorizing knowledge is by dividing it into formal and informal knowledge (Iftikhar & Ahola, 2020). Formal knowledge refers to knowledge that is acquired through a structured educational system, such as schools and universities. This type of knowledge is often based on established theories and principles, and is typically taught through textbooks, and other educational resources. On the other hand, informal knowledge refers to knowledge that is acquired through personal experience, informal information, observation, and self-directed learning. It is often gained through everyday activities, such as reading, talking with others, and experimenting with ideas and concepts. Another way of classifying knowledge is by distinguishing between expertise and skills (Kabita, Kwanya, & Mbenge-Ndiku, 2021). Expertise refers to a deep understanding and mastery of a particular subject or field, often gained through years of study and practice. Skills, on the other hand, refer to the ability to perform specific tasks or activities, often requiring a combination of knowledge, experience, and physical ability.

The basic and straightforward codification of knowledge is grouped into these four categories: know-what, know-why, know-how, and know-who (Lundvall, 2006). The know-what is concerned with information about who knows what and how to do what.

Know-why is concerned with empirical knowledge of concepts and laws of nature. Know-how is concerned with expertise or the capacity to do something. Know-who is concerned with information about who knows what and how to do what.

Tacit and explicit knowledge is another type of knowledge commonly used and defined in literature on knowledge management and the sharing of knowledge (Han & Anantatmula, 2007; Kamasak & Bulutlar, 2010; Ling et al., 2009; Martensson, 2000; Psarras, 2006; Seidler-de Alwis & Hartmann, 2008; Taminiau et al., 2009). Based on Michael Polanyi's differential, tacit knowledge refers to individual knowledge, which is context-specific and may be difficult to formalize and convey to others (Nonaka & Takeuchi, 1995).

Wensley (2000) contends it is common knowledge that there's a difference between tacit and explicit knowledge. Unconscious, semiconscious, and implicit knowledge are examples of tacit knowledge (Leonard & Sensiper, 1998). On the other hand, explicit knowledge is defined as knowledge that can be expressed (Biggam, 2001). However, there also scholars differentiate knowledge into “soft” and “hard” knowledge (Hildreth, Kimble & Wright, 2000). The term "soft" knowledge refers to knowledge that is difficult to express, while "hard" knowledge refers to knowledge that is the polar opposite of "soft" knowledge. Book knowledge, practical knowledge, and cultural knowledge are all types of knowledge (Hara, 2007). Explicit knowledge is also known as knowledge transferred formally and systematically. Brown and Duguid (1998) infer these types of knowledge as know-how and know-what. Contrary to what individuals may feel violated by revealed knowledge, individuals with know-how can control and protect this unique knowledge from being exposed to others (Brown & Duguid, 1998).

Knowledge also can be classified into public and private knowledge (Marouf, 2007). Public knowledge, according to Uzzi and Lancaster (2003), is "hard" content that can be answered and opened to request, while private or personal knowledge is "soft" information that requires confirmation from others. A case in point of public and private knowledge is a corresponding annual report and organizational strategy. Marouf (2007) then has expanded them into two major types of knowledge with different attributes known as public codified and uncodified, and private codified and uncodified, which are then correlated with the frequency of various types of links called business and social relationships. Business relationships have been found to have a significant impact on both public and private knowledge, while social relationships do not affect any knowledge.

The four types of knowledge to share with others are object-based knowledge, know-who knowledge, professional knowledge, and coordinating knowledge (Christensen, 2007). Professional knowledge is a combined knowledge of an individual's education and experiences while coordinating knowledge is an embedded knowledge set in advance. This includes rules, standards, and job descriptions. On the other hand, object-based knowledge deals with one particular object going through the company's production line while knowing where knowledge can be found, which means the know-who. In addition, the four forms of knowledge are codified knowledge, common knowledge, social knowledge, and embodied knowledge, based on the Blumentritt and Johnston (1999) classifications.

Hara and Hew (2007) studied the types of knowledge shared with others and adopted Hara's (2007) knowledge framework. The three primary categories of knowledge include knowledge about books, practical knowledge, and knowledge of a culture. Book knowledge relates to knowledge about standards and policies, while practical knowledge

relates to the use of book knowledge as a routine. Cultural knowledge concerns people's convictions about the practice and their personal responsibilities. These two types of knowledge, practical and book knowledge, were actively shared by members of the community of practice. The institutional practice is ranked the highest among the practical expertise, followed by personal opinion and advice. It is noteworthy that Hara (2007), in her ethnographic study, made a significant distinction between these various kinds of information. Cultural knowledge was specified as tacit, while knowledge of books was considered explicit. However, practical knowledge can be in both tacit and explicit knowledge categories depending on the context.

In an era of increasingly rapid globalization, government departments need to ensure that the knowledge required to carry out their duties and responsibilities is delivered efficiently and effectively. Different types of knowledge needed have been identified to meet these needs. In general, the knowledge shared in government departments is knowledge based on understanding specific and technical matters, knowledge about socialization, professional knowledge and coordinated knowledge (Eraut, 2000).

First of all is knowledge based on understanding of specific and technical matters. In the context of government departments, this kind of knowledge is often related to laws, regulations, and procedures that need to be followed in performing daily tasks. For example, in departments related to financial services, knowledge of taxation laws or financial reporting regulations is important to ensure accurate legal compliance that can prevent any inadvertent non-compliance implications in the future. Therefore, by sharing object-based knowledge, government departments can ensure that all their staff can

correctly and accurately understand their needs and responsibilities and can carry out their assigned tasks well.

In addition, knowledge of socialization is also a valuable asset in a government context. This knowledge involves relationships and social networks owned by individuals or staff inside or outside the organization. In government departments, having good contacts with other individuals or organizations can help in obtaining support, additional information, or assistance in dealing with complex related issues. For example, an official who has good contacts with the industry may be able to obtain valuable input on the impact of policy changes in the sector. Therefore, sharing knowledge about relevant contacts is the key to expanding the network and increasing the competitiveness of their organization in turn becoming an advantage for their department.

In addition, professional knowledge is also seen to play a very important role in knowledge sharing in government departments. Such knowledge includes skills, experience and understanding of a specific field of work. In this context, government departments often have specific experts and expertise in various fields such as law, economics, public safety, medicine, engineering, administration and more. Accordingly, by acting to share professional knowledge, government employees can learn and act from each other's experiences and improve efficiency in carrying out their duties. In addition, professional knowledge is also seen to be able to ensure that every decision made is based on a deep understanding of a relevant issue and is not done casually.

Last but not least is coordinated knowledge. It is the key to ensure that activities in government departments run smoothly and effectively. Such knowledge involves an

understanding of how processes and activities interrelate and interact within the organization. By sharing coordinated knowledge, government departments can ensure that all activities are carried out synergistically and move towards the same goal. This helps avoid confusion, delays, and lost time that occur due to lack of coordination.

Overall, different types of knowledge are the basis of efficiency and effectiveness in government departments. By sharing object-based, contact, professional, and coordinated knowledge, government departments can ensure that they are always ahead of the curve in fulfilling their duties and responsibilities to society.

2.21 Factors Contribute to Knowledge Sharing

There are two factors that contribute to knowledge sharing that can be identified. These factors are personal factors and organizational factors. Personal factors are sense of responsibility, intrinsic motivation, personality, positive attitude, organizational commitment, self-efficacy, and interpersonal trust while organizational factors are leadership, organizational culture, rewards and recognition, opportunity sharing, and social group factors. Both of these factors have their own role in knowledge sharing in the organization.

2.21.1 Personal Factors

Personal factors including a sense of responsibility, intrinsic motivation, personality, positive attitude, organizational commitment, self-efficacy, and interpersonal trust.

2.21.2 Sense of Responsibility

Individuals are driven to share knowledge because they may perceive it as their role and responsibility in the organization. Herzberg (1987), based on his twelve investigations, has indicated responsibility as one of the top factors that affect job attitude or satisfaction. Among them, they indicated the importance of establishing an identity for a group and personal accountability to elevate cooperation between employees and, therefore, help establish a sense of responsibility among the employees.

2.21.3 Intrinsic Motivation

Several studies have indicated the importance of inherent motivation in exhibiting knowledge sharing behavior. In a study conducted in a collectivist culture, personal achievement or growth compared to extrinsic reward was found to affect one's decision to share knowledge (Ma, Huang, Wu, Dong, & Qi, 2014). In another relation, people might want to share knowledge because of the feeling of pleasure to help other colleagues with the knowledge they own (Witherspoon et al., 2013). It was found that gratification in helping others increased the tendency to collect and donate knowledge (Lin, 2007). Ford and Staples (2010) are also of the same opinion by indicating that people with a high propensity to share knowledge are enjoying the process, hence, allowing the full sharing of knowledge.

2.21.4 Personality

An individual's personality has its influence on knowledge sharing behavior and attitude. In general, studies on personality in a knowledge sharing topic focused on three types of personalities that are conscientiousness, agreeableness, and openness. In their

quantitative studies, both Chu, Krishna Kumar, and Khosla (2014) and also Matzler, Renzl, Müller, Herting, and Mooradian (2008) have generated similar results on this issue. They have indicated that these three types of personalities significantly influence knowledge sharing. On the contrary, Cabrera, Collins, and Salgado (2006) found openness to experience among the main contributing factors in a psychological dimension, while conscientiousness appeared insignificant in their study.

2.21.5 Positive Attitude

The impact of attitude towards individuals' actions is imperative. Indeed, studies investigating such matter are common. Consequently, having a positive attitude will lead to a positive intention and behavior to knowledge sharing among employees (Witherspoon et al., 2013; Mohammed Fathi, N., Cyril Eze, U. & Guan Gan Goh, G. , 2011).

2.21.6 Organizational Commitment

Organizational commitment indicates the willingness or readiness of an individual to commit and contribute something to the organization (Al Zefeiti & Mohamad, 2017). In a previous study, Lin (2007) has applied the exchange ideology as a mediator in her study and focused on a social perspective on knowledge sharing by taking organizational commitment into the part. Regardless of the different ideologies, individuals who feel attached to the organization are more likely to share knowledge.

2.21.7 Self-Efficacy

An individual's belief in knowledge sharing may influence how they interact with others. According to Bandura (1994), self-efficacy refers to "the person's beliefs about his or her capabilities to produce desired effects" (p. 614). Several studies have focused on this

aspect as the antecedent of knowledge sharing (Cabrera et al., 2006; Fathi et al., 2011; Lin, 2007; Tohidinia & Mosakhani, 2010). In a study conducted at a large multinational company, Cabrera et al. (2006) found that self-efficacy and openness to experience are the most significant variables in the psychological or personal variable towards individual engagement in knowledge sharing. It was also indicated that high self-efficacy employees are more likely to have positive attitudes towards knowledge sharing than those who lack confidence in their ability (Fathi et al., 2011; Tohidinia & Mosakhani 2010).

2.21.8 Interpersonal Trust

The effect of confidence on inter-organizational knowledge sharing was important in a study conducted by Cheng et al. (2008). It stated that active participation and collaboration between organizations are the most important components in developing trust and sharing information. Individuals' knowledge sharing behaviour is influenced by confidence in the presence of information technology. Furthermore, trust is required for social exchange to take place. Trust makes it possible to build and maintain exchange relationships that result in high-quality information sharing (Liang et al., 2008). Chiu et al. (2006) support the value of confidence in high-quality knowledge sharing.

2.22 Organizational Factors

Several organizational factors are believed to influence knowledge sharing among employees. These factors include leadership, organizational culture, reward and recognition, sharing opportunities, and social group factors.

2.22.1 Leadership

Although the individual is ultimately responsible for deciding with whom they wish to share knowledge, organisations, particularly with the support of the manager, will provide the best perception to the employees. Several studies have found a correlation of this factor to knowledge sharing (Han & Anantatmula, 2007; Parirokh et al., 2008; Schauer et al., 2015; Witherspoon et al., 2013). After all, an individual's willingness to share knowledge grows directly proportional to the managers' support (Ford & Staples, 2010). The perceived help would alter one's view that their managers encourage a culture of knowledge sharing among them. It's because leaders have the ability to affect the people they deal with. In addition, Sodergaard et al. (2007) suggested that leadership may be an important prerequisite for an organization to develop a knowledge-sharing culture that fosters individual actions.

2.22.2 Organizational Culture

The organisational culture is another factor that can influence knowledge sharing. According to McShane and Glinow (2004), organizational culture is “a collection of values, norms, and behavior shared by workers that control the way workers interact with each other” (p. 16). This is something that everyone in the organization accepts and uses, and it is something that outsiders are aware of. Tohidinia and Mosakhani (2010) emphasize the importance of culture, claiming that any efforts toward knowledge sharing are futile if the environment within the organization is not conducive. As such, organizations must cultivate a strong knowledge sharing culture in promoting knowledge sharing among their employees.

Witherspoon et al. (2013) and Han and Anantatmula (2007) studies indicate culture as influencing employees' willingness to share. Among the construct used in Han and Anantatmula's (2007) study are organizational practices, trust, technology, and leadership support. Witherspoon et al. (2013) found that organizational support, communication, subjective norm, knowledge resources and technology, and participation strongly influence individuals' knowledge sharing intention and behavior. Søndergaard et al. (2007) implied that the aspects of an individual, organizational, and leadership are important determinants in encouraging a knowledge sharing culture, leading an individual to perform knowledge sharing. They suggested that the positive behavior could be used to restrengthen the culture and influence further the progress of this element, either positively or negatively.

2.22.3 Reward and recognition

Reward and recognition are important factors that can encourage employees' participation in knowledge sharing. In a study conducted at manufacturing companies in Malaysia, Fathi et al. (2011) found that incentive systems positively encouraged knowledge sharing intention among employees. Witherspoon et al. (2013) also support this proposition in their meta-analytic study of forty-six literature. There is the belief that sharing knowledge could bring incremental increases or increase the chances to be promoted and bring an advantage to building reputation was found to have a positive impact on knowledge sharing behavior. By taking social exchange theory into their study, Huang et al. (2008) implicated that extrinsic monetary rewards encourage knowledge sharing. Huang et al. (2008) were supported by Ma et al. (2014), whereby it was found that employees seem to be more motivated by extrinsic rewards and less by intrinsic motivation.

2.22.4 Opportunities to Share

The organization can enhance its organizational members to share knowledge by providing many opportunities to get involved. This includes technological infrastructures. Sohail and Daud (2009) acknowledged this notion in a study carried out at Malaysia's public and private universities. The study found that the teaching staff accorded that training programs, structured teamwork, and good infrastructure in accessing the shared knowledge enabled effective knowledge sharing. The importance of appropriate technology and information infrastructure has frequently appeared in knowledge sharing-related studies (Alavi & Leidner, 1999; Han & Anantatmula, 2007; Sohail & Daud, 2009; Tohidinia & Mosakhani, 2010). This notion is supported by Parirokh et al. (2008), in their study among the librarians found that librarians consider using the internet to be just as important as interacting with their coworkers. However, having modern technology will not solve the knowledge sharing issues (Han & Anantatmula, 2007). Additional steps need to be taken to ensure technology usage is employed and benefited by the organizational members.

2.22.5 Social Group Factors

A study focusing on the group context was somewhat limited. Wang and Noe (2010) have put an emphasis on interpersonal and team characteristics and processes as part of contributors to knowledge sharing. Lin (2007) explicates cooperation as a basis for the knowledge sharing process. Among the important points featured in her study was the received task interdependence. In her viewpoint, employees whose tasks are interrelated would intensify a cooperating behavior and direct towards stronger intentions to share knowledge. This is supported by collectivist culture that exhibits high values of group

efforts shows positive support for individuals' attitudes to sharing knowledge (Fathi et al., 2011).

2.23 The Benefits of Knowledge Sharing

There are tremendous benefits that organizations can achieve when they emphasize knowledge sharing. The most frequently studied knowledge sharing outcome is innovation (Kamasak & Bulutlar, 2010; Lin, 2007; Sáenz et al., 2009; Taminiau et al., 2009). Lin (2007) found significant relationships between the knowledge sharing processes, knowledge collecting, and donating to the organization's innovational capability. Taminiau et al. (2009) supported Lin (2007) by claiming that innovation is best achieved through informal knowledge sharing methods.

Then, knowledge sharing increases the capability of the organization to keep up with organizational learning. The previous study has indicated that organizational learning is vital in determining organizational effectiveness and performance (Yang, 2007). Apart from that, Zhang and Jiang (2015) believe that organizational learning and knowledge management are critical influences for the organization's competitive advantages. The relationship between organizational learning and knowledge sharing is apparent because it aids the transformation of individual knowledge into organizational knowledge (Yang, 2007).

Then, knowledge sharing benefits the organizational outcomes including the financial, marketing, and general aspects such as good project management, while the process outcomes include the communication and efficiency aspects such as minimizing the time spent on a particular task or problem. In another study, Chu et al. (2014) found

that knowledge sharing helps in increasing core competency, increased responsiveness, stimulated innovation, and increased work efficiency are only a few of the advantages.

Haas and Hansen (2007) have proposed that different types of knowledge have different benefits when shared. The tacit and explicit types of knowledge were conceptualized into how they are being shared through electronic documents and personal advice. Based on their content and process, it was found that the higher the quality of the document is, the more time could be saved. On the other hand, personal advice gained from the experts will improve work quality and signalize one's competency. Nevertheless, the benefits of knowledge sharing can be found implicitly in other studies. For instance, Han and Anantatmula (2007) asserted that knowledge sharing could sustain competitiveness and increase the organization's survivability. As employees tend to seek other chances out from the organization, it helps to reduce the knowledge gap between the less experienced and more experienced employees (Ling et al., 2009; Dunford, 2000). Other than that, knowledge sharing also gives benefits to its organizational members. This is because employees can increase their communication skills (Sohail & Daud, 2009). Thus, knowledge sharing enables employees to increase their networking with others.

In today's turbulent environment, knowledge is the most important factor in competitive advantage strategy. Knowledge can occur in various forms, such as individual experience and expertise. The importance of organizational knowledge is increasingly seen as essential and is an asset to the organization, especially in the information-based world. An organization that can harness knowledge or data for the benefit of its organization is seen to get various competitive advantages that will make the organization ahead or outperform its competitors.

Knowledge sharing in government departments is not only a commendable practice, but it is the basis for efficient and effective governance. In the field of public service, where decisions affect the lives of the public, the value of knowledge sharing cannot be underestimated.

Knowledge sharing in general is seen as capable of encouraging informed decision making. Being in a government department where every decision is often multi-faceted and therefore requires views from various domains such as economics, sociology and public administration. Accordingly, by acting to share knowledge across departments and hierarchies, civil servants can pool their expertise and perspectives leading to comprehensive analysis and more informed policy choices.

In addition, knowledge sharing is also seen to be able to foster a culture of innovation in government departments. Working and serving in an era characterized by rapid technological advances and evolving societal challenges, innovation is essential to the advancement of government departments. By sharing best practices, lessons learned, and emerging trends, public servants can inspire creativity and adaptability in solving emerging problems. It can be implemented either by streamlining bureaucratic procedures through digitization or implementing new approaches to deal with urbanization challenges, a collaborative environment driven by knowledge sharing fosters innovation, enabling the government to stay ahead and deal with emerging issues effectively.

Furthermore, knowledge sharing also acts by increasing transparency and accountability in current governance of government departments. In a democratic society, transparency is essential to foster public trust and legitimacy. By openly sharing

information, data and insights, government agencies have indirectly promoted accountability and demonstrated their commitment to serving the public interest. It can be implemented by either disclosing budget allocations, publishing policy evaluations or engaging in public consultation thereby building transparent governance and building credibility and fostering citizen involvement.

In addition, knowledge sharing fosters capacity building and professional development among civil servants. In a government position, continuous learning is important to keep abreast of developments in policy, technology and methodology. With the practice of sharing expertise and experience, it can mentor younger colleagues by imparting invaluable knowledge and skills. In addition, knowledge sharing initiatives such as workshops, seminars, and cross-departmental collaborations can provide opportunities for skill enhancement and career advancement. Accordingly, by investing in the professional development of civil servants, the government fosters a cadre of skilled and motivated civil servants capable of tackling complex challenges and driving positive change.

In conclusion, knowledge sharing is not only good for government departments, but it is a basic requirement for effective governance. By acting promoting informed decision-making, fostering innovation, increasing transparency, and fostering professional development, knowledge sharing serves as a catalyst for progress and prosperity. In an interconnected world where the challenges facing government are increasingly complex and dynamic, adopting a culture of knowledge sharing is essential to building a resilient, responsive and inclusive government department.

2.24 The Theory Used for this Study

This study uses Bandura's Triadic Model and Lewin’s Stages of Change Theory to explain the relationship between learning organization, readiness to change, and knowledge sharing. This theory have been selected based on suitability to be adapted to the context of the study.

2.24.1 Lewin’s Change Theory

As is well known, Kurt Lewin is a well-known academic scholar in the field of change readiness. His theory has been widely studied and continues to be adapted by scholars around the world in their studies until now. For example, Caldwell (2023) has used Lewin's theory in a recent study titled "An Application of Lewin in a Trans-Pandemic World: A Narrative Inquiry in a Case Study with a New Suggested Model for the Future". Additionally, Kovacevic (2023) conducted a study on "The Relationship Between Employee Psychological Ownership and Employee Participation in the Early Stages of Establishing Dubai Academic Health Corporation in the UAE" while Sorensen (2023) explored "Leading Through Change Using Snyder's Hope Theory and Lewin's 3-Step Model". All three studies were conducted in different research contexts and their findings show the reliability of Lewin's theory.

Lewin's model provides a structured framework for understanding change processes and their alignment with the development of learning organizations. The stages emphasize the cyclical nature of change, showing that readiness is an ongoing process rather than a one-time event. In general, Lewin's theory can be seen from three levels or aspects which are "freezing the current level, moving to a new level, and freezing group

life at a new level" (Durmaz (2007, p.35). The term "unfreeze" is a term which refers to the point where improvement is required because the old and existing procedures in the organization are no longer suitable. "Unfreezing" is the initial stage that highlights the importance of creating a sense of urgency and the need for change. It is important for leaders in the public sector to communicating the need to be a learning organization to improve readiness. This requires fostering a collective understanding among stakeholders of the benefits of learning organizations in coping with uncertainty. Thus, balance is critical at this point and change can only occur if the driving forces outweigh the restraining forces in a complex psychological situation Therefore, employees are also encouraged to make progress during this "unfreezing" stage by developing a change-friendly atmosphere because the individual's willingness to change is believed to occur at this stage (Durmaz, 2007).

In the "unfreezing" stage, knowledge sharing plays an important role in creating a common understanding of the need for change. Transparent communication and sharing of relevant information contributes to building collective awareness and sense of urgency. Change and knowledge sharing during the implementation of learning initiatives, effective knowledge sharing allows for a smooth flow of information. It enables the dissemination of best practices, lessons learned, and innovative ideas, supporting organizations in adapting to new ways of working.

The "move" or "change" stage emphasizes the implementation of learning initiatives. Within the organization, it can involve the establishment of learning platforms, training programs, and the integration of knowledge sharing mechanisms. The goal is to

facilitate the transition towards a culture that embraces learning as a continuous process and is able to strengthen the organization's readiness to change.

Next, the "refreezing" stage will only come into play by institutionalizing learning and only then will the organization move towards becoming a learning organization. This involves embedding learning practices into the organizational structure. In the "re-freezing" stage, knowledge sharing becomes institutionalized as a fundamental part of the learning organization. Organizations foster a culture where information is not stored but shared freely, creating an environment conducive to a constant willingness to change. Knowledge sharing is not only a moderating factor but part of the culture, ensuring that the organization is not only ready for change but continues to grow and adapt. Although Lewin's model highlights the stages of change, it does not explicitly address the role of knowledge sharing. However, knowledge sharing is a cross-cutting element across all levels, serving as a moderating factor by facilitating communication, collaboration and information dissemination throughout the change process.

In conclusion, Lewin's stages of change theory provides a valuable framework for understanding the dynamics of organizational readiness to change. Integrating knowledge sharing as a moderating factor increases the applicability of the model in contemporary contexts, emphasizing the importance of information flow and collaboration throughout the change process.

Lewin's Stages of Change theory, developed by Kurt Lewin, provides the basis for understanding organizational change, including the introduction of technology in civil

service. The model describes the change process in three phases: 'unfreeze,' 'change/move,' and 'refreezing.' Although the theory offers important insights, there are some advantages and disadvantages that should be noted.

The theory provides concepts that are easy to understand and apply, which allows researchers to systematically understand and manage change. The 'unfreeze' phase helps staff recognize the need for technological change, unravel anxieties, and plan next steps. The 'change' phase focuses on the implementation of change and acceptance by staff. Lewin emphasizes the need for support during the transition, which can help reduce feelings of discomfort and fear. The 'freeze' phase emphasizes the preservation and maintenance of change, which helps prevent staff from reverting to old practices and ensures that technological change is accepted as part of the organization's routine.

The adaptation of Lewin's 'Stages of Change' Theory into this study is as follows. The theory of change proposed by Kurt Lewin, famous for his concept of "Stages of Change", has become an important guide in understanding how individuals and organizations respond to change. In the context of government servants, the adaptation of this theory becomes relevant to understanding and improving readiness to face the changes that occur in their work environment.

The 'Unfreeze' stage refers to the steps that need to be taken to open the minds of the staff to the changes that will occur. Among government employees, this step may involve awareness, desire, and understanding of the need to change in line with current needs or wants. Employees need to understand why the change is important and what the impact is on the organization and the individual. Through various means, such as the

provision of training and related infrastructure, continuous dialogue, leadership commitment, and the provision of sufficient information, the readiness to change can be introduced and nurtured. Among the three stages, the 'Unfreeze' stage is the most important stage because it is a precursor or an early sign of readiness to change among government employees.

Next is the stage known as “Moving or Change”, which is a stage that involves the implementation of the change itself. In the context of government employees, the development of 'learning organization' practices plays an important role in strengthening or increasing the willingness and desire to change. When organizations foster an active and creative learning culture and focus on improving efficiency, staff will feel the need and importance of change. This may involve providing a platform for ongoing knowledge sharing and dialogue, strengthening of skills and knowledge, and continuous learning opportunities that help adapt to changes in organizational and market needs.

Finally is the 'Refreezing' stage, where the changes carried out become part of the culture and practices of the organization. Here, the positive relationship between readiness to change and 'learning organization' can be further strengthened through the practice of knowledge sharing among government employees. When employees feel that their knowledge and experience are valued and used collectively to improve processes and outcomes, a willingness to change will be fostered and maintained. Practices such as experience sharing sessions, online community forums, positive dialogue and, knowledge sharing networks will provide a suitable platform to continue a culture of learning and positive engagement among staff. Overall, the adaptation of Lewin's 'Stages of Change' theory on readiness to change among government employees leads to a deeper

understanding of the steps required to introduce, reinforce, and maintain change in the work environment. By strengthening the relationship between readiness to change, organizational learning, and knowledge sharing, government organizations can achieve higher efficiency and successfully face current and future challenges.

2.24.2 Bandura's Triadic Model

Recent studies that use this theory include Schunk and DiBenedetto (2020) who focus on behavioral, environmental, and personal influences on motivation, McGinness, Caldwell, Gunasekera, and Scott (2022) who use this theory to understand the influences on student feedback behavior, with relationships between students and teachers as a central factor, Gusti, Wayan, Agus, and Wayan (2023) who use Bandura's observational learning model based on performance assessment leads to higher athletic skills learning outcomes compared to conventional learning models, Gutierrez, Kidd , Lee, Pazos, Kaipa, Ringleb, and Ayala (2022) using Bandura's triadic reciprocal determinism model was used to analyze undergraduate engineering and education students' experiences in interdisciplinary teams during the transition to online learning and instruction due to COVID-19 and Bergman, Bergman, Haenggi, Lei, and Thatcher (2020) who use Bandura's Triadic Model is used to conceptualize mobility as agency in train users' lives in Beijing, integrating technological developments into existing sociocultural models and political expectations. All these studies have been carried out in the context of different fields of study, and this shows that this theory is universal in nature.

Albert Bandura, a renowned psychologist, has put forward various theories that play a significant role in our understanding of social psychology. One of the most

important concepts he proposed is "Bandura's Triadic Model" or "Bandura's Triad Model," which comprises three main elements: ability, behavior, and environment. According to Bandura, ability refers to a person's self-confidence in their ability to perform a particular action or task. This internal element plays a crucial role in shaping behavior. Bandura argued that a person's belief in themselves and their abilities can influence their behavior. For instance, a person who is confident in their ability to complete a challenging task is more likely to attempt it than someone who lacks self-belief.

The second element in this triad is behavior. In this theory, Bandura emphasizes the concept of "learning through observation." It is a condition where an individual learns a behavior by witnessing or observing others perform an action. This involves the process of observing and imitating the model's behavior. For example, a child might learn how to speak politely and show appreciation by watching how the adults around them interact. The third element, environment, refers to external factors that influence behavior, such as social norms, cultural values, and social support. Bandura emphasized that the environment also plays a critical role in shaping a person's behavior. For instance, a person may be more inclined to engage in behavior that is accepted by the society around them.

What makes Bandura's Triadic Model unique is how these three elements are interconnected and influence each other. Individual abilities can be influenced by environment and behavior, and vice versa. This creates a complex and dynamic relationship between the elements of the triad. Furthermore, Bandura's Triadic Model provides valuable insight into human behavior in society. By considering ability, behavior, and environment, it helps in exploring the factors that shape values, norms, and social practices in society. By understanding the intricate relationship between ability, behavior,

and environment, we can gain a better understanding of humans and their interactions with the world around them.

The two theories discussed are applied based on specific circumstances. Lewin's Stages of Change theory is used to explain the readiness of civil servants to accept change. This means that Lewin's theory is more useful in explaining an individual's readiness to change, based on the different stages of change. Therefore, the readiness of civil servants to change should be seen based on the stages outlined by Lewin in his theory. On the other hand, Bandura's Triadic Model explains how government departments interact with the changes happening around them, such as technological change. This means that Bandura's theory helps to explain the state of the organization interacting with the factors outlined in the theory. By applying these two theories, it can provide a clear explanation of the research.

Lewin's theory provides concepts that are easy to understand and apply, which allows researchers and leaders to systematically understand and manage change. The 'unfreeze' phase helps staff recognize the need for technological change, unravel anxieties, and plan next steps. The 'change' phase focuses on the implementation of change and acceptance by staff. Lewin emphasizes the need for support during the transition, which can help reduce feelings of discomfort and fear. The 'freeze' phase emphasizes the preservation and maintenance of change, which helps prevent staff from reverting to old practices and ensures that technological change is accepted as part of the organization's routine.

Bandura's Triadic Model, developed by Albert Bandura, focuses on the interaction between environmental, behavioral, and personal factors. This model is used to explain the readiness of an organization toward technological change. Triadic Model fits the context of technological change because it acknowledges the influence of environmental factors and personal beliefs in determining readiness for change. The model also provides the flexibility to take into account the variety of factors that may influence an individual's readiness to change.

In conclusion, both theories provide important insight into employee readiness for technological change. Their use should be coordinated with the needs of the organization and the purpose of the research. The integration of the relevant elements of these two theories provide a more comprehensive and relevant view of employees for technological change among civil servants.

2.25 The Public Sector Perceived Level of The Learning Organisation, Readiness to Change, and Knowledge Sharing

The public sector plays an important role in providing development and services to the community. In today's dynamic and complex environment, the success of the public sector depends on its ability to adapt to changes and effectively utilize knowledge. Therefore, it is crucial to assess the public sector's perception of learning organizations, their readiness to change, and their knowledge-sharing practices.

Learning organizations are entities that learn from past experiences, adapt to changes, and continuously improve performance. In the public sector, adopting the concept

of a learning organization is essential to increase efficiency and effectiveness in providing services to the community.

Different units and levels of the public sector have varying perceptions of learning organizations. Some units may be more open to innovation and learning, while others may be stuck in a routine that hampers their ability to adapt. Therefore, a comprehensive evaluation of the public sector's understanding and application of the concept of a learning organization at various levels is necessary.

Readiness to change is a critical factor in facing external changes. A public sector that is ready to change is better equipped to handle challenges and capitalize on new opportunities. Cultural, structural, and individual aspects all play a part in determining readiness to change. Organizational culture that supports innovation, a flexible structure, and individuals who are open to learning are crucial elements in assessing public sector readiness to change. Effective leadership that guides the organization through the change process is also essential. However, recent researches relating to readiness to change among government departments are very rare.

Knowledge sharing is a key element in building organizational learning capacity (Ipe, 2003). In the public sector, where knowledge is a valuable asset, sharing knowledge can improve operational efficiency and provide solutions to complex problems. However, sharing knowledge can be challenging due to unsupportive policies, lack of incentives, and concerns about information security. An evaluation of the extent to which the public sector has implemented knowledge sharing practices and efforts to overcome these obstacles must be carried out.

Measuring the public sector's understanding and application of learning organization concepts, readiness to change, and knowledge-sharing practices is a critical step towards sustainable improvement. This assessment can form the basis for developing strategies and policies that support positive transformation in the public sector, making them more responsive to environmental dynamics and maximizing the utilization of knowledge. Therefore, cooperation between leaders, officers, and stakeholders is necessary to create significant and sustainable change.

Previous studies have shown that the public sectors in Malaysia possess a strong learning organization, knowledge sharing, and readiness to change. However, these studies were conducted before the widespread use of modern communication technologies such as social media by government departments. Hence, it is necessary to conduct a new study to determine the current perception of civil servants towards learning organization, knowledge sharing, and readiness to change. The latest studies have highlighted the importance of learning as a critical aspect that plays a pivotal role in supporting change, as per the research conducted by Elliott (2020). The reason behind this is that learning allows organizations to acquire new knowledge, skills, and perspectives, which are vital for identifying and implementing effective change strategies. Through learning, organizations can gain insights from past experiences, both successes, and failures, and use them to inform future change initiatives.

Moreover, learning promotes a culture of continuous improvement, where employees are encouraged to seek new ideas, experiment, and learn from their mistakes. This culture, in turn, fosters innovation and creativity, which leads to enhanced productivity, efficiency, and profitability. Furthermore, learning has been linked to

improved employee engagement, job satisfaction, and retention rates, as it encourages employees to develop their skills, stay up-to-date with industry trends, and take ownership of their personal and professional growth. All of these factors combined make learning an indispensable component of any change management strategy, one that can help organizations stay competitive and adapt to changing market conditions effectively.

Several studies have been conducted in the local context to determine the perception of a learning organization in government departments. Although the study is somewhat outdated, it is still relevant and can be used as a reference, given that recent studies related to learning organizations in Malaysia are limited. Ghaffari, Burgoyne, Shah, and Nazri (2017) found that the employees perceived Malaysia public service as the learning organization. Their research looks into the learning organisation practises of non-academic staff at Malaysia's top public universities. Furthermore, Samad (2009) found the Malaysian Royal Police to have a high perception of being a learning organisation. This is demonstrated by the fact that more than 53.4 percent of police officers in his study agreed, while 46.6 percent disagreed. Samad's (2009) argument was supported by Zamri (2009). Zamri (2009) study found Malaysian Armed Forces perceived, as evident by 50.9% of his respondents, as a learning organization compared to 49.1% who believed in the other side. However, it is necessary to conduct new research to evaluate the perception of public employees, especially when they have access to modern communication platforms, in addition to similar studies are limited. McCoshan (2018) supports this idea, stating that such platforms offer flexibility, stimulate collaboration, provide real-world connectivity, and enable finding and sharing of resources in adult learning.

The development of modern communication technology has had a major impact on various aspects of organizations, including government departments. Modern communication platforms such as social media, e-mail, chat applications, and social sites play an important role in accelerating the flow of information, which can significantly support the concept of a learning organization. With the ease of obtaining information and sharing ideas, employees in government departments may feel that their organizations are better able to learn from past experiences and adapt to change. Moreover, these platforms also facilitate the continuous learning process, where employees can access online learning resources and share knowledge without physical boundaries. This can increase the level of understanding of the concept of a learning organization among government department employees. Furthermore, fast and efficient communication through modern platforms can influence the readiness to change in government departments. Employees who feel connected and up-to-date may be more receptive to and supportive of change. These platforms can be effective channels for communicating the purpose of change and stimulating interest in advancing the department. It is important to ensure that change information is communicated clearly and accurately through modern communication platforms as this is a crucial factor in assessing the readiness to change among government employees. Additionally, the interaction between leaders and employees through these platforms can also build trust and motivation to face the challenges of change.

In addition, the practice of sharing knowledge can be improved with the presence of modern communication platforms among government departments. Employees can easily share experiences, ideas, and knowledge through chat applications or collaborative spaces in work platforms. This creates an environment where knowledge can flow freely

between individuals and organizational units. The platform also enables the creation of learning communities within government departments, where employees can actively interact and contribute to knowledge exchange. Awareness of the value of shared knowledge can increase work effectiveness and creativity in solving complex problems in government departments.

The influence of modern communication platforms on learning organizations, readiness to change, and knowledge sharing among government departments is a significant phenomenon in this digital age. The ability to utilize communication technology wisely can accelerate a positive transformation in human resource management and improve organizational efficiency. Therefore, it is important for government departments to realize and take full advantage of the potential of modern communication platforms to improve organizational performance and support the achievement of strategic goals.

Readiness to change previous studies have found that readiness to change among employees is high for using modern communication technology. However, this finding refers to studies outside Malaysia.Shonhe (2019) discovered that public librarians in Botswana are eager to incorporate information and communication technologies (ICTs) into library services. The study's purpose was to examine Botswana public librarians' readiness to utilise technology in library management and information dissemination. Shonhe (2019) used Survey Monkey software to collect data from 21 participants using convenience and purposive sampling. The study questions were based on Parasuraman and Colby's Technology Readiness Index (TRI) (2015). In addition, to collect both qualitative and quantitative data, a mixed-methods approach was used. The study by Shohne (2019) is supported by the findings of a study by Cao, Ajjan, Hong, and Le (2018) in China, who

found that factors that influence the use of social media in organizations are internal readiness among employees. Internal readiness and other study findings are significant because they influence organisational performance outcomes in operations and marketing, as well as the level of satisfaction of internal and external constituents such as customers, employees, partners, and suppliers. Cao, Ajjan, Hong, and Le (2018) study uses an online questionnaire survey to collect data from 285 organizations representing different industries in China. The data were then analyzed with structural equation modeling using SmartPLS. The findings of Shohne (2019) and Cao, Ajjan, Hong, and Le (2018) were then supported by a study by Zhang and Xiao (2017). Employee readiness has a significant influence on social media assimilation in local government agencies, according to Zhang and Xiao (2017). They gathered data from 150 government employees in the government department of the X municipal government in China. Their research work is aimed at the critical technological, organisational, and environmental factors that influence social media adoption in local government agencies.

According to recent research, knowledge sharing among employees is a topic that yields mixed results. One study by Turyahikayo, Pillay, Mary, and Muhenda (2021) found that the perceptions of knowledge sharing in the public sector were both positive and negative. However, this study was limited to only 19 interviewees and based on qualitative data, so the findings may not be generalizable. In contrast, another study by Aslam, Muqadas, Imran, and Saboor (2018) discovered that employees who used modern communication technology such as social media tended to share their knowledge more frequently in organizations. Aslam, Muqadas, Imran, and Saboor (2018) used self-

administered questionnaires to collect 403 valid responses from public sector workers. Their study was conducted in Pakistan.

A study by Chatterjee, Rana, and Dwivedi (2020) supported by Aslam, Muqadas, Imran, and Saboor (2018) found that they realize the importance of knowledge sharing and using social media to increase the effect of knowledge exchange. The study is to understand the factors that determine the knowledge exchange intention and behavioral nature of academics with the help of social media tools in Indian higher education. Chatterjee, Rana, and Dwivedi (2020) used valance – instrumentality – expectancy (VIE) theory to ascertain academics' knowledge exchange behaviour. The effects of knowledge contributor (KC) and knowledge seeker (KS) as moderators were considered in the study. A survey with 320 usable respondents was used to validate the model.

Then, Alshahrani and Pennington (2018) discovered that researchers utilise social media effectively and frequently for knowledge sharing, despite the fact that some may discourage its use. The study looks into the sources of self-efficacy that researchers rely on when using social media for knowledge sharing and how these sources influence their use. The study employed 30 semi-structured interviews with researchers at a major Scottish university. The authors used directed content analysis to examine the interview transcriptions. According to Naem (2020), the collaborative and interactive nature of Social Networking Applications (henceforth SNAs) can increase the richness of knowledge sharing and facilitate employee participation. As a result, leadership should keep an eye on these channels in order to improve the change process and address employee concerns. These social networking platforms can improve social interactions, support, and

acceptance at individual and organisational levels. His research aims to shed light on how SNAs can aid in implementing change in the insurance industry.

Imran, Javed Iqbal, Aslam, and Fatima (2018) discovered that social media is beneficial for gaining existing and new knowledge in their study. They argued that social media applications promote knowledge sharing and transfer, which helps advance knowledge exchange. This paper aims to look into the advantages of using social media to improve the exchange of knowledge in organisations. The constructionism method, relying on grounded theory and qualitative methodology, examines the exposition using 22 non-directive and semi-structured interviews with doctors from Bahawal Victoria Hospital.

The public sector's role in providing development and services to the community is very important. However, in today's dynamic and complex environment, the sector's success depends on its ability to adapt to change and effectively utilize knowledge. Therefore, it is important to assess the sector's perception of learning organizations, their willingness to change, and knowledge-sharing practices.

A learning organization is an entity that learns from past experiences, adapts to changes and continues to improve performance. In the public sector, adopting the learning organization is important to increasing efficiency and effectiveness in providing services to the community.

However, although several studies show that the public sector in Malaysia has a strong culture of learning organization, knowledge sharing, and readiness to change, there are still some weaknesses in the understanding and applying these concepts at various levels and units in the public sector.

One fundamental criticism is that although there is research that shows a positive relationship between the use of modern communication technology such as social media and knowledge sharing practices and readiness to change in the public sector, there is still a need for further research that updates the findings. This is important considering the rapid changes in technology and shifts in work culture that may occur along with the increased use of technology.

Furthermore, although some studies show a positive perception of knowledge sharing in the public sector, there are still challenges in effectively applying the practice. Unsupportive policies, lack of incentives, and concerns about information security can be obstacles (Koza & Öztürk, 2022). Therefore, it is important to conduct more in-depth research to understand the factors that influence the effectiveness of knowledge sharing practices in the public sector.

In addition, the role of leaders in facilitating change and encouraging knowledge sharing needs to be considered more seriously. Effective leaders can create a work culture that supports innovation, learning, and knowledge sharing, which in turn will increase willingness to change and improve overall organizational performance.

In order to improve the understanding and application of the concept of learning organizations, readiness to change, and the practice of sharing knowledge in the public sector, further research with a more sophisticated and inclusive approach is needed. Deepening our understanding of the factors that influence these practices can help in developing more effective strategies and policies to improve the performance of the public sector and provide better services to the community.

2.26 Relationship Between Learning Organization and Readiness To Change

Several previous studies have looked into the relationship between learning organization and change readiness. A study recent study by Al-Tahitah, Abdulrab and Alwaheeb (2020) found learning organizational significantly influences change readiness and commitment to change in the educational sector in Yemen, with readiness to change partially mediating this relationship. Their study empirically examine the effect of learning organizational and readiness to change on commitment to change. The data was collected throughout a survey distributed on 244 administrative staff of the educational ministries in Yemen using a stratified random sampling approach. The findings revealed that all hypotheses were supported where learning organization has a significant influence on both change readiness and commitment to change.

Samad (2009) conducted a study among Malaysian Royal Police officers. His study included 305 individuals from different ranks and was focused on Watkins and Marsick's learning organization model (1993, 1996). From his study, Samad found that six learning organization dimensions were significantly and positively correlated: promote inquiry and dialogue; create systems to capture and share learning; empower people toward a collective vision; connect the organization to its environment, and provide strategic leadership for learning. Encourage collaboration and team learning were positively correlated at .05 level and other dimensions significant at .01 levels. The correlations were within the range between low to moderate relationships (Davis, 1971). However, the dimension of create continuous learning opportunities was not significantly correlated with readiness to change.

Zamri (2009), in his study, agreed with Samad's (2009) findings (2009). Zamri (2009) investigated the relationship between learning organization and change readiness in the Malaysian Armed Forces. His research included 175 military personnel and was based on Marquadt (1996). According to Zamri (2009), all learning organization profiles have a significant and positive relationship with change readiness. The magnitude of the correlation coefficient was in the weak to low range. These findings were significant as it provides significant comparison regarding learning organization and readiness to change relationship. One important finding was that these two studies did not yield similar results, although the nature of organization structure, administration, and duty was almost identical. In contrast to Samad (2009) and Zamri (2009), Haque (2008) found different findings. Haque (2008) did a study with 93 Turkish police officers based on Watkins and Marsick's learning organization (1993, 1996,1999). Haque (2008) discovered that all seven learning organizational dimensions were strongly and positively associated with change readiness, with the correlation coefficient in the range of moderate to the high relationship (Davis, 1971). These dimensions were provide strategic leadership for learning, empower people toward a collective vision, encourage collaboration and team learning, connect organization to its environment, promote inquiry and dialogue, create continuous learning opportunities, and create system to capture and share learning. In addition, Haque (2008) discovered that DLOQ has a strong relationship with change readiness overall. Haque's (2008) findings were supported Sudharatna and Li (2004) that conducted their study on Thailand's mobile phone service industry. Sudharatna and Li (2004) research included two industry leaders who controlled 90 percent of Thailand's overall cell phone service market. Their study focused on seven aspects of learning organizations: cultural values, leadership commitment and empowerment, communication, knowledge transfer, employee

characteristics, and performance upgrading. Their results indicate that high learning organization characteristics are associated with a high level of change readiness. To summarise, the relationship between learning organizations and change readiness varies by organization, although the structure of the organizations is identical.

The study of the relationship between learning organizations and readiness to change has been the focus of some previous research. However, the analysis of these studies shows some research weaknesses, particularly highlighting how technological, organizational, and local context factors play a role in determining the relationship between learning organization and individual readiness to change.

First, it is important to criticize that some studies only focus on certain sectors, such as education or the police force. This reduces the generalizability of their findings to various organizational contexts, which causes an imbalance in the representation of organizations in the study.

Furthermore, there are significant differences in findings between studies conducted in various countries and sectors. For example, research by Al-Tahitah, Abdulrab, and Alwaheeb (2020) found a significant relationship between learning organizations and willingness to change in the education sector in Yemen, while research by Haque (2008) found different findings in the context of Turkish policy. These differences may reflect differences in organizational culture, management policies, or other contextual factors that may affect how individuals and organizations respond to change.

In addition, some dimensions of the learning organization examined may not holistically reflect the actual state of the learning organization, or there may be other factors outside the dimensions (such as moderator variables) that need to be investigated that affect the relationship between the learning organization and willingness to change.

In future studies, it is recommended to improve and further investigate the contextual factors and moderators that influence the relationship between learning organizations and readiness to change, as well as expand the sample and sector coverage to make the findings more generalizable. By doing this, it can better understand how learning organizations can influence an organization's ability to adapt and grow in the face of ever-changing environmental changes.

2.26.1 There is a Significant Relationship Between Create Continuous Learning Opportunities and Readiness To Change

In an era that continues to change rapidly, continuous learning and readiness to change are increasingly important for individuals and organizations. The continuous learning process not only improves knowledge and skills but also opens the door to innovation, adaptation, and sustainable growth. There are various methods to create continuous learning and one of them is through technology (Alolabi, Ayupp, & Dwaikat, 2021).

To create continuous learning opportunities, it is important to develop a culture that fosters a desire to learn among individuals and within organizations. This involves recognizing that learning is not a one-time process but a continuous effort to improve

oneself. A positive learning culture emphasizes the importance of knowledge, innovation, and sharing ideas. It encourages individuals to seek learning opportunities, whether through formal courses, in-service training, or practical experience.

Effective learning opportunities are not limited to a particular form or platform, as it needs to include a variety of learning methods that suit individual needs and abilities (Nabizadeh, Leal, Rafsanjani, & Shah, 2020; Shemshack, & Spector, 2020; Mirari, 2022; Sokpheng, & Meng, 2022; & Wong, Li, & Chan, 2023). This can include online courses, seminars, workshops, mentoring, and more. By providing various options, each individual can choose the learning method that best suits their learning style and needs. This will ensure that learning is more interesting and viable and has a deeper impact.

Continuous learning opportunities also play an important role in encouraging innovation and creativity (Hijfte, 2020 & Liu, Zhao, & Zhao, 2020). Individuals who are dedicated to improving their skills and knowledge are more likely to challenge the status quo and find better solutions. This opens the door to fresh ideas, discoveries, and process improvements that may not have been previously considered. Thus, continuous learning is not only about adapting to change but also about being a driver of positive change.

Readiness to change is an important aspect in building the ability of individuals and organizations to adapt to a rapidly changing environment (Mladenova, 2022). This involves being open to change, as well as the courage to take risks and face challenges with confidence. Individuals and organizations ready to change see every challenge as an opportunity to learn and grow. They not only embrace change but also perceive it as an opportunity to improve performance and achieve excellence.

In an ever-changing world, continuous learning and readiness to change is an important aspect of achieving success and effectiveness. By building continuous learning, providing diverse learning opportunities, encouraging innovation, and embracing challenges as opportunities, it can strengthen organization commitment to continuous growth and excellence (Hijfte, 2020). Through joint efforts, learning organization can create individuals and organizations that are dynamic, adaptive, and viable, ready to face challenges, and take advantage of opportunities that come.

Continuous learning is a dimension that incorporates both formal and informal learning strategies, acknowledging that learning is a lifelong activity. Learning is built into the work in learning organizations so that people can learn from their blunders, missteps, and problems on the job (Lyons, 2019). Defining the learning needs and the necessary tools to build learning opportunities in the workplace is essential. While time is an essential source of support for continuous learning projects, it is also crucial to make available other tools such as financial allocation in order to maintain learning activities over time. According to Lohman (2006), continuous learning is explained as an "increased amounts of unencumbered time with discretion over how that time is used that would provide employees with greater learning opportunities" (p. 153). Investing in improving employees through learning is a must in order to "enable effective skills in achieving mission where workers are given opportunities and resources to learn, discuss their mistakes and see them as an opportunity to learn" (McHargue, 2003, p. 200).

Past studies have found a significant relationship between create continuous learning opportunities and readiness to change. Studies by Safina (2016) and Mojtaba, Badri, and Chegini (2015) have found a significant relationship between create continuous

learning opportunities and readiness to change. Similarly, the findings of studies by Rouzbahani, Khazai, Farah, and Nasr (2013) and Lagzian, Allameh, Alirezab, Dehghanic, and Aeini (2014), and Gholamreza (2011) also found that change readiness and the dimension of create continuous learning opportunities have a significant relationship. In addition, the findings from other studies, such as Samad (2009), also further strengthen the relationship between create continuous learning opportunities and readiness to change. As such, the hypothesis there is a significant relationship between create continuous learning opportunities and readiness to change is proposed. However, the advantages of online communication technology platforms such as social media have provided ample learning opportunities. This situation causes the learning space for government departments to no longer be traditionally limited.

There are several reasons why learning in government departments no longer depends entirely on the ability to create continuous learning opportunities. This phenomenon can be seen in the increasing use of social media platforms in the learning process. Some recent research shows that social media has become an important channel in increasing the effectiveness of learning among government employees. Prashant and Shilpa (2022) stated that social media platforms can be used in the learning process to build peer interaction, enhance peer learning, and provide 24x7 support and assistance. This means that learning is no longer bound to a fixed space and time, giving flexibility to government employees to continue learning regardless of location or time.

Additionally, Dragseth (2020) emphasizes that social media can increase student engagement, build professional and peer networks, and develop social media skills. This proves that learning in the context of government departments not only provides formal

knowledge but also enriches interpersonal and professional skills through online interaction. Susanto, Yie, Mohiddin, Setiawan, Haghi, and Setiana (2021) also stated that social media platforms provide opportunities for formal learning. This creates a way in which government departments can formally communicate information and knowledge through social media, providing structured and targeted learning opportunities.

Kazak, Bondaruk, Zabiiaka, Samsonenko, Ivaniha, and Ignatieva (2021) underline that online platforms and social media create many opportunities for effective organizations in the educational space. By using modern communication tools such as social media, government departments can expand their communication capabilities, increase access to learning resources, and optimize educational space. Makhoere, Jokonya, and Gorejena (2020) support this view by stating that mobile devices and social media platforms provide opportunities for collaboration and self-directed learning. This allows government staff to collaborate more effectively and take initiative in the learning process.

Overall, the use of modern communication technology such as social media in learning in government departments has opened vast opportunities for continuous learning. With increased peer interaction, student engagement, and flexibility of space and time, government departments are now able to provide a more holistic learning experience that suits the needs of today's workforce. Therefore, it is important to continue to incorporate these elements in the learning strategy in government departments to ensure the effectiveness and relevance of continuous learning.

Although previous researchers have explained the benefits of using modern technology well and comprehensively, they failed to see the dark side of modern

technology's ability to provide learning opportunities in the context of public service, and it is possible that the results are not as beautiful as imagined. Therefore, there are some limitations that need to be taken into account, especially related to elderly staff, staff without technical skills, staff who are lazy to learn, and the risk of using social media for negative purposes. In addition, the organization's ability to provide the necessary infrastructure also needs to be considered.

First, aging staff may face challenges in adapting to modern communication technology (Chen, Krieger, & Sundar, 2021; Astasio-Picado, Cobos-Moreno, Gómez-Martín, Verdú-Garcés, & Zabala-Baños, 2022) They may be less comfortable using social media or other digital communication platforms, which can prevent them from fully taking advantage of the learning opportunities provided by this technology. They may need additional help, such as training or technical support, to understand and use the platform effectively.

Employees lacking the technical skills to use modern communication platforms will face similar challenges. For those who are less tech savvy, learning to communicate through social media or other digital platforms can be a daunting task (Jackman, Gentile, Cho, & Park, 2021). They may need additional education or specialized training to help them overcome these deficiencies and take advantage of the learning opportunities provided through technology.

In addition, there are also staff who may be lazy to learn. Although modern communication technology provides easy access to a variety of learning resources (Velayutham, Raja, & Chalke, 2022), including online learning materials and digital course

platforms, staff who are lazy to learn may not take the initiative to make full use of these opportunities. They may need additional encouragement, such as incentives or support from management, to encourage them to participate in learning activities.

In addition, there is also the risk that staff can use modern communication tools such as social media for harmful purposes (Dette, 2016; Malecki, Keating, & Safdar,2020; Wilbanks, 2020; Alsubhi, 2021), such as for office politics to backstabbing colleagues or spending hours on social platforms without obtaining productive benefits. This can lead to wasted time and reduce work productivity. Therefore, it is important for organizations to take steps to monitor and manage the use of social media among staff, including establishing clear policies and procedures related to the use of social media while at work.

Finally, the organization's ability to provide the necessary infrastructure is also an important factor to consider (Choriev, Jamoldinovna, Dusyarov, Eshchanova, & Nullaev, 2021; Nampijja, Øyhus, Webersik, & Muyinda, 2021; Honcharenko, & Brekhunets, 2023). Without access to the necessary equipment and networks, staff may not be able to take advantage of the learning opportunities provided by modern communication technologies. Therefore, organizations need to invest in adequate IT infrastructure and ensure that staff have easy and reliable access to the equipment and software required for continuous learning.

In conclusion, although modern communication technology provides a variety of learning opportunities in the workplace, there are some limitations that need to be taken into account and overcome to ensure that all staff can take full advantage of these opportunities. By providing appropriate support and training, as well as taking steps to

manage social media use and providing the necessary infrastructure, organizations can ensure that continuous learning among staff occurs effectively, comprehensively, and inclusively.

2.26.2 There is a Significant Relationship Between Promote Inquiry and Dialogue and Readiness To Change

In an ever-evolving world, the ability to promote inquiry and dialogue, as well as readiness to change, are key elements in achieving continued progress. Inquiry allows us to better understand the world, while dialogue facilitates the exchange of ideas and deep understanding (Deng, Deng, Huang, & Gao, 2021; Prastiti, 2021; Rahi, Alghizzawi, Ahmad, Khan, & Ngah, 2021). Meanwhile, readiness to change allows us to adapt to the inevitable changes in life.

Inquiry is a critical process for understanding the world around us. This involves gathering information, analyzing data, and drawing rational conclusions. When we promote inquiry, we encourage people not only to passively receive information, but also to dig deeper, challenge beliefs, and seek deeper truths (Leng, 2020; Prasetiyo, & Rosy, 2020; Johnsen, & Butali, 2022; Salamah, Pramudyo, & Novianto, 2023). This involves the development of critical skills such as critical analysis, logical reasoning, and persistence in the search for knowledge.

Dialogue is a way for us to understand each other and exchange ideas (Gandolfi, Pickering, & Garrod, 2022; Attia, 2023; Shapir, 2023). When we listen to other people's points of view, we open our understanding of the world and appreciate the diversity of

perspectives. A profitable dialogue allows us to divide differences, find commonalities, and formulate better solutions. However, dialogue also requires the ability to communicate respectfully, listen without prejudice, and carefully understand the other person's point of view.

Readiness to change is an important mental attitude in facing the dynamics of inevitable change in life. The world constantly changes, and our ability to adapt to those changes determines our survival (Mladenova, 2022). When we are open to learning new things, changing our opinions based on newly discovered evidence, and adapting to a changing environment, we become more flexible and resilient in the face of challenges.

By combining deep inquiry, open dialogue, and readiness to change, we create an environment that enables progress and innovation. This is not only true in an academic or professional context, but also in our daily lives. When actively promoting inquiry and dialogue and maintaining a readiness to change, we open the door to personal growth, social progress, and limitless possibilities.

Thus, promoting inquiry and dialogue, as well as readiness to change, is the foundation for a dynamic and inclusive society. By appreciating this process and reinforcing it in our daily interactions, we not only enrich our understanding of the world but also pave the way to a better future for all.

Promote dialogue and inquiry dimension is linked to an organizational culture that encourages individuals to voice their opinions while also improving their ability to listen and enquire about the thoughts of others (Deng, Deng, Huang, & Gao, 2021). In this

dimension, experimentation and feedback are welcomed and encouraged (Lyons, 2019). This dimension is thought to affect learning organization and readiness to change significantly. Open and truthful feedback from different officers of an organization is vital for employees to accept criticism with an open-minded attitude to promote a learning culture at work and enable them to acknowledge errors.

Good communication is necessary to encourage learning, either positive or negative comments or experiences within the learning organization, so that acknowledgement of errors and mistakes will minimize the probability that workers will make the same mistake in the future (Michna, 2009). It is one of the pillars for getting to maturity in preventive maintenance and eventually enhance. In McHargue (2003), the motivation given is to improve individual learning and continue with the implementation of learning management systems and information sharing at a later date, which is an appropriate approach for managing and improving human capital. Without an effective communication system in place, a culture of knowledge sharing will not be established, and these conditions often become a hindrance to changes in the organization's readiness. The willingness to treat everyone's ideas, beliefs, understanding, comments, and opinions with respect during the problem-solving process will establish a higher level of trust than blame for mistakes when something goes wrong in the office. Past studies support this opinion where Mojtaba, Badri, and Chegini (2015) have found a significant relationship between promoting inquiry and dialogue and readiness to change. The findings by Mojtaba, Badri, and Chegini (2015) are also supported by the findings of studies by, Allameh, Alirezab., Dehghanic. and Aeini (2014), Samad (2009), and Yahya (2009), who has studied the relationship between learning organization and readiness to change in the local context. Therefore, the

hypothesis is there is a significant relationship between promote inquiry and dialogue and readiness to change.

However, the opposite possibility should also be taken into account due to several reasons. First, it may be due to the bureaucratic structure that prevents dialogue and investigation from being used for the benefit of the organization. For example, it is common for upper management and employees to work together in a top-down manner. Therefore, it is not common practice for employees to question the instructions of upper management. Therefore, some important information about the department's vision may be overlooked, which results in the failure of employees to fully understand and understand the vision and, consequently, the failure of employees to carry out their duties. This is supported by Mohamed, Sidek, Izharrudin, Kudus, Hassan, and Noor (2019), who found in their study that modern communication tools, such as social media, can cause misunderstandings of the meaning of words conveyed because people have different perceptions and misunderstandings between one each other, as well as killing the mind and spirit to work. This situation can also cause subordinates to question the department's vision and leadership, which causes them to fail with upper management. Additionally, it may be due to the perception of some employees that discussing important and confidential information through open dialogue or two-way communication may harm their career development, which may also contribute to negative relationships.

In conclusion, it can be seen that while there is recognition of the importance of promoting inquiry and dialogue in organizations to form a healthy learning culture and increase readiness to change, there are also challenges that may prevent the positive effects expected from this practice. Therefore, it is important for organizations to be aware of the

various factors that may affect the effectiveness of this strategy and take appropriate measures to overcome them.

2.26.3 There is a Significant Relationship Between Encourage Collaboration and Team Learning and Readiness To Change

In an increasingly complex and dynamic business era, collaboration and team learning are the keys to facing ever-growing challenges (Gosselin, Thompson, Pennington, & Vincent, 2020.; Watson, 2022; Obiekwe, & Obiekwe, 2023). Encouraging effective collaboration and team learning improves organizational performance and strengthens readiness to change in the face of inevitable change.

First of all, effective collaboration requires a culture that encourages openness to new ideas, knowledge sharing, and teamwork (Mathrani, & Edwards, 2020; Delgado, Ruiz, Mon, Collazos, Moreira, & Fardoun, 2021; Watson, 2022). This involves creating an environment where team members feel comfortable participating, contributing, and supporting each other. When team members feel valued and encouraged to share their thoughts, collaboration becomes more productive and innovative.

Furthermore, it is important to facilitate open and transparent communication between team members (Erickson, 2021; Gramchev, Dimitrakieva, & Lesidrenska, 2023). This allows for quick information sharing, collaborative problem solving, and joint action planning to achieve team goals. By promoting effective communication, teams can overcome communication barriers that are often barriers to successful collaboration.

In addition, team learning is an important element of effective collaboration. This involves joint reflection on successes and failures, comprehensive analysis of the work process, and identification of lessons that can be applied in the future (Tan, 2020; Watson, 2022). By facilitating open team discussion and reflection, team members can better understand their strengths and weaknesses and ways to improve their performance continually.

However, effective collaboration does not just happen naturally; it requires a leader who facilitates and supports productive teamwork. Leaders should act as catalysts for collaboration by clarifying team goals, facilitating meaningful discussions, and providing support and appreciation to team members who contribute positively. By playing an active role in facilitating collaboration, leaders can create a culture that supports successful teamwork (Ali, Shuai, Ahmed, Mahmood, Khayyam, & Tikhomirova, 2021).

It is also important to ensure that the team is ready to change. Readiness to change in a team context involves the willingness to adapt existing structures, processes, and work habits to achieve new goals or meet evolving challenges (Naumtseva, & Stroh, 2020); Alolabi, Ayupp, & Dwaikat, 2021). This can involve creating joint action plans, identifying new roles and responsibilities, and clearly communicating expectations to all team members.

Therefore, encouraging team collaboration and learning and building readiness to change is essential for organizational success in a constantly changing business environment. By creating a work culture that supports collaboration and team learning and

ensures that the team is ready to adapt to changes that occur, organizations can optimize their performance and achieve long-term success.

Team learning is an essential dimension of workplace learning, which provides an opportunity to encourage readiness to change in an organization (London, 2021). It is best made possible when the team puts equality above all employees' differences when participating in cooperation. Michna (2009) describes the condition for fostering successful team learning by indicating that partnership is better established when everyone in the team is treated with equal respect regardless of their job ranking or position. Michna (2009) then elaborated that the learning culture embedded in the characteristics of the team is reflected in the way the team reacts to the sharing of knowledge as well as the exchange of ideas. It is better constructed when the team treats each other with dignity, which creates a feeling of mutual trust towards the strengths of each other. This opinion is also supported by the study by Safina (2016), Mojtaba, Badri, and Chegini (2015), and Allameh, Alirezab, Dehghanic, and Aeini (2014), as all researchers have found a significant relationship between encourage collaboration and team learning and readiness to change. Accordingly, this study suggests the hypothesis that there is a significant relationship between encourage collaboration and team learning and readiness to change.

The group learning dimension is an important aspect of workplace learning, which provides an opportunity to encourage a willingness to change in an organization. It is best implemented when teams place equality above all employee differences when collaborating. Michna (2009) describes the conditions for fostering successful group learning by showing that partnerships are better established when everyone in the team is treated with equal respect regardless of their job ranking or position. Michna (2009) then

explained that the learning culture embedded in team characteristics is reflected in the way the team responds to knowledge sharing and the exchange of ideas. It is better built when teams treat each other with dignity, which creates a sense of mutual trust in each other's strengths. This view is also supported by studies by Safina (2016), Mojtaba, Badri, and Chegini (2015), and Allameh, Alirezab, Dehghanic, and Aeini (2014) because all researchers have found a significant relationship between encouraging collaboration and group learning and willingness to change. Therefore, this study proposes the hypothesis that there is a significant relationship between encourage collaboration and team learning and readiness to change.

Although there is a strong emphasis in the information provided on the importance of encouraging cooperation in the team to achieve readiness to change, there are some weaknesses and shortcomings that need to be taken into account in a critical analysis of this relationship. Although it is believed that group learning can give impetus to the readiness to change, the role of the individual in the team cannot be ignored (Alolabi, Ayupp, & Dwaikat, 2021). Often, in large teams, individuals may feel marginalized or unappreciated, which can hinder group learning and affect readiness to change. This can also lead to a lack of diversity of thought and ideas, which is important in ensuring effective learning and innovation.

Second, while collaboration within a team is important, it is also critical to recognize that not all situations require a collective approach (Langlois, 2020). There are situations where quick decisions or individual impressions are more appropriate and effective than a consensus process. Therefore, overemphasizing collaboration can inhibit the efficiency and creativity that may be needed in certain situations. Third, although there

are research findings that support the relationship between encourage collaboration and team learning and readiness to change (Haque, 2008; Samad,2009; Yahya, 2009), it is important to recognize that different organizational contexts may produce different results. What works in one organization may not be as effective in another due to factors such as organizational culture, hierarchical structure, and different team needs.

In conclusion, while encouraging cooperation and group learning is important to achieve readiness to change in organizations, it is important to look critically at how other factors such as individual recognition, situational needs, and organizational context affect this relationship. By adapting approaches and strategies to the unique needs and circumstances of each organization, only in this way can we maximize the positive effects of encouraging collaboration in achieving readiness to change.

2.26.4 There is a Significant Relationship Between Create System To Capture And Share Learning and Readiness To Change

In the ever-evolving business world, the ability to learn and adapt quickly is key to long-term success for organizations. One effective way to achieve this is to develop systems that enable organizations to effectively capture and share learning while ensuring readiness to face change. First, it is important to develop a system that proactively captures learning from organizational experience (Eken, Bilgin, Dikmen, & Birgonul, 2020; Giannakos, Mikalef, & Pappas, 2021). This can involve using post-project evaluation, data analysis, or regular retrospectives to identify lessons from each activity or project undertaken. By analyzing the successes, failures, and challenges faced, organizations can gather valuable insights to help them grow and develop. Further, the learning captured

should be systematically documented and shared widely throughout the organization (Hwang, 2020). This can be done through centralized knowledge storage, online collaboration platforms, or routine learning and training sessions. By ensuring accessibility and openness to the learning that has been acquired, the organization can ensure that this valuable information is not only limited to a few people, but can be accessed and utilized by all members of the organization.

However, it is not enough to just share the learning that has been gained; organizations should also encourage a culture of continuous learning (Alonazi, 2021; Halmaghi & Todăriță, 2023). This involves rewarding learning initiatives, encouraging experimentation and innovation, and providing space for constructive failure. By creating an environment where learning is viewed as an investment in long-term growth and success, organizations can foster greater creativity, adaptability, and collaboration. In addition, an effective system for capturing and sharing learning must also be supported by a strong commitment from the organization's leadership (Vu & Yazdani, 2021). Leaders should be role models in accepting learning, sharing their experiences, and promoting an inclusive and proactive learning culture. By demonstrating their commitment to learning and change, leaders can inspire and guide the entire organization to adopt the same attitude. Finally, it is important to ensure that the system developed also includes a mechanism to capture and follow up on the willingness to change. This could involve employee surveys, group discussion sessions, or employee satisfaction surveys to measure the level of support and readiness to face change throughout the organization. By understanding employee views and attitudes toward change, organizations can identify areas where additional support or communication is needed.

Building an effective system to capture and share learning while ensuring readiness to change is key to building an adaptive and innovative organization. By facilitating continuous learning and creating a culture that supports innovation and change, organizations can remain relevant and successful in facing the challenges that develop in a constantly changing business environment (Arunga, 2023).

The knowledge embedded in an organization once individual learning has occurred and been successfully transferred to the system level is referred to as the dimension of the create system to capture and share learning. This dimension recognizes the need for high-tech and low-tech solutions to capture and share learning (Lyons, 2019). Today's workplace environment requires effective communication systems as one of the dimensions vital for workplace learning interventions to succeed. Michna (2009) contends, "In order to maintain their knowledge and experience, enterprises should have and use constantly updated databases" (p. 363).

The information system is very critical for talent management to complete the learning cycle because it is a mechanism that enables information to circulate through knowledge sharing and reduces the lost impact of brain drain. Hernandez (2003) research findings that embedded systems are, in addition to empowerment, another predictor to display a clear connection with the internal transfer of knowledge. Hernandez's (2003) findings indicated that information technology was deployed as storage to retain all the knowledge produced by a series of learning exercises and provide access to others within the company that promotes sharing the knowledge.

A well-kept information system would also allow employees to obtain accurate and up-to-date information on quality for analysis. A thorough assessment will help staff find issues and perform comprehensive impact assessments prior to making decisions. McHargue (2003) recommended investment in technology that needs to be taken seriously because the production of well-maintained embedded systems would enable access to quality information required to predict an institution's financial and knowledge output. Past studies also support this opinion. A study by Safina (2016), who has conducted a survey on learning organization relationship and readiness to change, found a meaningful relationship between create a system to capture and share learning and readiness to change. Similarly, studies conducted by Mojtaba, Badri, and Chegini (2015), Allameh, Alirezab, Dehghanic, and, Aeini (2014), Rouzbahani, Khazai, Farah, and Nasr (2013), and Lagzian and Gholamreza (2011) have all found a significant relationship between create system to capture and share learning dimension and readiness to change. Therefore, this study suggests the hypothesis, there is a significant relationship between create system to capture and share learning and readiness to change.

The notion of creating a system to capture and share learning within the organization is undoubtedly important to foster readiness to change. It is emphasized that when individual learning is successfully transferred to the organizational level, it becomes embedded knowledge, forming the basis of this dimension. This recognition emphasizes the importance of both high-tech and low-tech solutions in capturing and disseminating knowledge. Although this perspective seems promising, critical examination reveals several weaknesses and areas that call for skepticism.

First, while the emphasis on knowledge management systems is understandable, there is a danger in assuming that technology alone can effectively capture and disseminate knowledge. While modern communication and information systems are undoubtedly powerful tools, they are only as effective as the processes and culture surrounding their use. Simply having a database and information system does not guarantee that knowledge will be shared and used effectively. It requires a conducive organizational culture that encourages openness, collaboration, and a willingness to share insights and experiences.

Second, while technology can facilitate the storage and retrieval of information, the real value lies in human interaction and communication. Building a culture where knowledge sharing is encouraged and rewarded is essential (Haesebrouck, Abbeele & Williamson, 2020; Castaneda & Ramírez, 2021; Iqbal, 2021). Employees need to feel incentivized and empowered to share their knowledge and experience, regardless of the sophistication of the information system in place.

Furthermore, simply investing in technology without addressing the underlying cultural and structural barriers is unlikely to yield significant results. Moreover, the assumption that access to quality information alone can drive organizational change is too simplistic. Organizational change is a complex process that requires support from stakeholders, effective leadership, and a strategic approach to change management.

In conclusion, while creating systems to capture and share learning is certainly important, it is important to use a nuanced and holistic approach. Technology can be a valuable enabler, but it must be complemented by efforts to foster a culture of knowledge sharing, address structural barriers, and effectively engage stakeholders. Only by

addressing these broader organizational dynamics can organizations truly harness the power of knowledge to drive meaningful change.

2.26.5 There is a Significant Relationship Between Empower People Toward a Collective Vision and Readiness To Change

In the journey towards organizational success, it is important to understand that individuals have a key role in creating a shared vision and facing change with a positive attitude. Empowering individuals to achieve a shared vision and readiness to change is a solid foundation for an organization's growth and sustainability (Joo, Park & Lee, 2020).

Empowering individuals means giving them a sense of ownership and responsibility for the organization's shared vision. This involves clear and open communication about the organization's purpose, values, and strategic direction. With a strong understanding of this vision, individuals feel emotionally connected and motivated to contribute to achieving common goals (Sltten, Mutonyi & Lien, 2021). Furthermore, it is important to create an environment where individuals feel heard, valued, and encouraged to actively participate in the decision-making process (Selim, 2021). When individuals feel they have a voice in the organization's direction and strategy, they are more likely to commit and contribute to the maximum. In addition, empowering individuals also means providing them with the resources, training, and support they need to grow and succeed in their roles. This could be skills training, leadership development, or mentorship support. When individuals feel empowered to develop their potential, they become more motivated to achieve extraordinary results (Vu, 2020; Saleh, Eshah, & Rayan, 2022). Empowering individuals is not only about giving them the strength to grow individually but also about

directing their energy and talents towards the achievement of a shared vision (Joo, Park, & Lee, 2020; Albayrak, & Ertürk, 2021). This requires open communication, interdepartmental collaboration, and strong team building. When individuals work together as a team, focusing on a common goal, they can achieve far greater results than they could individually.

Empower people towards a collective vision is in which team members must be empowered to contribute to the organization's shared vision, be recognized for their contributions, and see the organization's links to the broader environment. They must also be given the freedom to take chances in order to learn from their failures (Lyons, 2019). Empowerment is required to kick-start the next learning process to produce ideas and experiences that can be continually enhanced. Learners may lack the motivation to apply the information acquired from past learning experiences to the current situation due to human nature tends to avoid blaming their mistakes and errors. Hines et. al. (2004) claimed that the human aspect of people's inspiration, confidence, and appreciation is the secret to long-term sustainability irrespective of industry. Michna (2009) supported this concept by suggesting that trust is a strong indicator apart from other factors such as feedback, appreciation, and trustworthiness. The researcher believed that the management should be more tolerant of accepting risk and promoting innovation in the workplace. This is a noteworthy finding because the management plays a vital role in granting recognition and delegating authority to the employees so that they are not restricted by limited freedom of choice to pursue creativity and the generation of ideas in improving their daily work. In addition, support in providing a higher level of resource management to the workers would also assist their efforts in carrying out their development projects.

Vision is the direction of an organization or government department. This direction is a destination in the future that we are trying to reach. Without any vision then, an organization cannot succeed and grow. Similarly, without strong support and commitment from all organization members, an organization's vision is likely to fail and not be achieved. This situation shows the importance of empowerment to all members of the organization to ensure that the organization and department members pursue the collective vision of the organization. This is also supported by previous studies such as Allameh, Alirezab, Dehghanic, and, Aeini (2014) and Rouzbahani, Khazai, Farah, and Nasr (2013). Their study has found a significant relationship between empowering people toward a collective vision and readiness to change. Therefore, the hypothesis, there is a significant relationship between empower people toward a collective vision and readiness to change is proposed.

While empowering individuals is an important step, it is not enough for long-term success. Organizations must also be ready to change. Readiness to change involves adopting an attitude that is open to change, learning from experience, and adapting strategies and tactics to meet evolving needs. The readiness to change also requires an awareness of the need to continuously improve and innovate. This involves creating a culture where failure is seen as an opportunity to learn and grow, not as a mistake to be avoided. By adopting a proactive attitude toward change, organizations can remain relevant and competitive in a rapidly changing environment. Therefore, empowering individuals toward a shared vision and readiness to change are two interrelated and important aspects of building a successful and sustainable organization. By empowering individuals to reach their potential and directing their energy toward a shared vision and by

having an attitude open to change, organizations can face future challenges with confidence and resilience.

Although the information provided strongly emphasizes the importance of empowering individuals to achieve a collective vision to achieve readiness to change in the organization, some weaknesses and aspects need to be noted in a critical analysis of this relationship. First of all, while the idea of empowering individuals to contribute to the organization's shared vision is important, it is important to remember that empowering individuals is not the only factor that determines readiness to change. There are other factors that also play an important role such as organizational structure, organizational culture, and support from management. Without the right support and commitment from all members of the organization, the shared vision of the organization may be difficult to achieve even if individuals are empowered. Second, while empowering individuals can give them the freedom to take risks and innovate, too much freedom without clear guidance and adequate support can also lead to chaos and lack of focus. It is, therefore, important to strike a balance between empowering individuals with appropriate supervision and direction to ensure the desired positive impact. Third, while an organization's vision is important, it also needs to be considered critically to ensure its relevance to current conditions and market needs. Being too attached to an inflexible vision can hinder the willingness to change when needed to adapt to changes in the external environment. Fourth, although studies support the relationship between empowering individuals towards a collective vision and willingness to change, it is important to remember that this relationship may vary depending on different organizational contexts and conditions. What works in one organization may not work in another. Thus, while empowering individuals

to support the organization's shared vision is important, it is also important to consider other factors that can influence readiness to change. Careful critical analysis is needed to understand the unique needs and dynamics of each organization in achieving effective change readiness.

2.26.6 There is a Significant Relationship Between Connect The Organization To Its Environment and Readiness To Change

In today's dynamic business era, organizations can no longer operate as isolated entities. They must be able to recognize, adapt, and connect with their external environment to achieve long-term success. Connecting an organization to its environment is not only about understanding market trends or customer needs but also about understanding the social, political, economic, and technological impacts that affect its operations (Shan-xing, 2004; Lu, Cai, & Bi, 2022; Mertzani & Pitt, 2023). First of all, the external environment of an organization includes factors such as global markets, industry competition, government regulations, and technological changes (Lu, Cai, & Bi, 2022; Mertzani & Pitt, 2023. Organizations that successfully connect with this environment will be able to identify new opportunities and anticipate future challenges. For example, a technology company that is sensitive to innovation trends and the adoption of new technology will be better able to compete in a constantly changing market. Additionally, it is important for organizations to understand their internal dynamics. This involves an in-depth understanding of the company's culture, organizational structure, and employee capabilities and skills. Organizations that successfully connect themselves with their environment will also be able to evaluate their internal strengths and weaknesses, as well as identify areas where change and improvement are needed (Sarta, Durand, & Vergne,

2021). However, it is not enough to connect the organization with the external environment and understand its internal dynamics. Organizations must also be ready to change. Adapting and responding to change is key to surviving in a constantly changing environment. Organizations that are rigid and unwilling to change tend to be left behind and may even face the risk of extinction (König, Graf-Vlachy, & Schöberl, 2020).

Readiness to change involves several key factors. First, visionary and progressive leadership is important to drive change and create a culture that supports innovation (Voet, & Steijn, 2020; Hashim, Othman, Mohammad, & Agala, 2022; Fransisca, & Saputro, 2023). Leaders must be able to articulate the vision of change, guide employees through the transition, and provide the necessary support to overcome obstacles. In addition, organizations need to have flexibility in their structures and processes. They must be able to quickly adapt their operations to respond to market or regulatory changes, without getting bogged down in excessive bureaucracy or procedural rigidity. In addition, investment in employee development and continuous learning is also crucial. Skilled and knowledgeable employees will be better able to adapt to changes, adopt new technologies, and innovate how they work (Coetzee, Bester, Ferreira, & Potgieter, 2020). By connecting organizations with their external environment and being ready to change, an organization can secure its position in a competitive market and produce long-term value for all stakeholders. They will be more adaptive, responsive, and ready to face the challenges that come in the future.

This dimension highlights that learning organizations involve and consider external stakeholders such as customers, suppliers, and community members, as well as the organization's impact on the communities in which it operates and on society at large

(Lyons, 2019). Connect the organization to its environment is another component of a learning organization that is believed to significantly impact continuous workplace improvement. Yang, Watkins, and Marsick (2004) believed that when it comes to predicting the organizational outcome, system interactions seemed more important than embedded systems. The authors further clarified that the explanation is due to consideration of today's competitive business climate. A perceived value encourages the company to be vigilant in reacting to changes in the market environment through the development of systems as storage to preserve and exchange knowledge about learning (Yang, Watkins & Marsick, 2004, p. 50). Infusing insights from the learner's world will enrich the current state of learners' understanding by achieving greater acuity and thinking out of the box while exploring problem-solving solutions. McHargue (2003) shared his thoughts on the importance of learning from the external environment by stating that the process will develop employees' capabilities and skills to better respond to clients, make suggestions easy to implement, and increase their skills. Organizations should therefore promote a different form of cooperation within the organization and include other external stakeholders and society (McHargue, 2003). As such, both individual learners and organizations are expected to benefit from developing an atmosphere that encourages strategic thinking within the employees that eventually brings valuable ideas for change back to the business to optimize the current processes.

Connecting the organization to its environment is indeed very important to government departments. Organizations or departments that neglect the relationship or are not associated with the "outside world" or its environment will undoubtedly be irrelevant to the context of the current situation. In addition to the current situation factor, when

social media becomes the central communication intermediary, the connection with the external environment is essential. Previous studies support this. For example, Safina (2016) and Mojtaba, Badri, and Chegini (2015) have found that connect the organization to its environment has a significant relationship with readiness to change. The findings of the study by Safina (2016) and Mojtaba, Badri, and Chegini (2015) are also supported by the findings of the study by Allameh, Alirezab, Dehghanic, and Aeini (2014), Rouzbahani, Khazai, Farah and Nasr (2013) and Lagzian and Gholamreza (2011). They found similar results in the study which they have done. Therefore, this study proposes the following hypothesis that there is a significant relationship between connect the organization to its environment and readiness to change.

This dimension emphasizes that learning organizations involve and take into account external stakeholders such as customers, suppliers, and community members, as well as the organization's impact on the communities in which it operates and society in general. Connecting the organization with its environment is another component of a learning organization that is believed to significantly impact continuous improvement in the workplace. However, despite the strong emphasis on the importance of connecting the organization with its environment, there are some weaknesses that may not be considered in a critical analysis of this relationship.

First of all, while relationships with external parties such as customers, suppliers, and the community are important, too much focus on the external environment may obscure the importance of balance with the internal aspects of the organization. Too much effort to involve external parties can disrupt internal operations and hinder the organization's ability to focus on internal needs as well as the needs of internal teams to

understand and support the transformation. Second, although it is important to connect with the environment, not all situations or organizations require the same level or type of connection with the environment. The appropriate strategy and need to connect with the environment may differ between organizations based on sector, size, and strategic goals. Thus, a "one size fits all" approach may not be appropriate or effective in all cases. Third, while emphasis is placed on the importance of connecting the organization with its environment to increase readiness to change, not all the changes required in the organization come from external factors. There are situations where change needs to start from within the organization, and therefore, overemphasizing the relationship with the environment may overlook the need for important internal change.

In conclusion, although it is important to connect the organization with its environment in order to improve the readiness to change, it is important to take into account the unique weaknesses and needs of the organization in the context of this relationship. By aligning the communication strategy and interaction with the environment with the needs and internal goals of the organization, only in this way can the organization maximize the positive effects of this relationship in achieving readiness for continuous change.

2.26.7 There is a Significant Relationship Between Provide Strategic Leadership For Learning and Readiness To Change

Leadership in government departments is the backbone of their organization. Without support, direction, and encouragement from leadership, it is difficult to implement learning and change in a government department. The role of leaders is important in

promoting and creating a learning organization. When the head of a federal government department is willing to change, it will indirectly influence subordinates to make changes. In other words, effective leadership plays an important role in driving change and shaping a culture of learning in the organization (Pudjiarti, & Hutomo, 2020; Banutu-Gomez, 2021; Channuwong, Wongsutthirat, Snongtaweeporn, Patcharapitiyanon, Sawangwong, Suebchaiwang, Niamsri, Benjawatanapon, & Roung-onnam, 2023). When leaders demonstrate a readiness to change and encourage learning within the organization, it opens the door to innovation, increases productivity, and strengthens the organization's readiness to address future challenges. Therefore, it is important to continuously emphasize the development of leadership skills that reinforce transformational leadership and continuous learning at all levels of the organization.

The dimension recognizes the importance of having leaders who model, champion, and support learning in the organization. Learning is viewed as a strategy for achieving business objectives, and top management must acknowledge this (Lyons, 2019). Lohman (2006) indicated that consideration of organizational culture, policy, laws, and measures is essential for instrument creation when evaluating the workplace environment. Leadership support is of paramount importance at the organizational level because it enables knowledge to be passed through the value chain, offers encouragement and learning opportunities, and tracks progress towards quality improvement.

Habidin and Yusof (2013) noted that successful leadership encourages employee engagement and dedication to quality improvement programs and promotes effective dialog inquiry and collaboration to ensure a better exchange of information. Leaders play critical roles as motivators and facilitators in understanding, promoting, respecting, and

accepting the concept of lifelong learning at work. Furthermore, leaders and other key people, who learn from their experience, influence others' learning and create an environment of expectations that shape and support desired outcomes that are, in turn measured and rewarded to build a learning climate and culture (Marsick & Watkins, 2003). Leaders' power and encouragement in fostering a learning culture and developing a mentality of continuous improvement at the workplace is reflected and their ability to offer a strong sense of direction. McHargue (2003) also offers valuable insights into the role of the leader by stating that, "learning processes do not need to be costly and can be carried out at low cost but the support of the leader is of the utmost importance in this course of action, particularly in terms of the time spent" (p. 203). Leaders play a significant role in offering resources to develop the learning skills of employees. Leadership support is a source that guides employees throughout their learning process toward firm-specific directions to achieving sustained competitive advantage.

Past studies have shown significant results concerning organizational leadership and readiness to change. For example, a study by Safina (2016), who examined the relationship between learning organization and readiness to change, found a significant relationship between provide strategic leadership for learning and readiness to change. The study findings by Safina (2016) are also supported by the study of Mojtaba, Badri, and Chegini (2015), as they found that the dimension of providing strategic leadership for learning has a significant correlation with readiness to change. The findings of the study by Safina (2016) and Mojtaba, Badri, and Chegini (2015) are also supported by other studies such as Allameh, Alirezab, Dehghanic, and Aeini (2014), Rouzbahani, Khazai, Farah and Nasr (2013) and Lagzian and Gholamreza (2011), who found similar results in the study

which they have done. Therefore, this study proposes the following hypothesis that provide strategic leadership for learning is significantly associated with readiness to change.

This dimension recognizes the importance of having leaders who are role models and supporters of learning in the organization. Learning is seen as a strategy to achieve business objectives, and top management should recognize this. Although there is a strong emphasis on the importance of leadership support in learning and readiness to change, there are some weaknesses that need to be considered in a critical analysis of this relationship.

First, while strategic leadership that supports learning is important, overemphasizing this responsibility on top leaders can overlook the role that all layers of management play in supporting learning and change. Learning should be treated as the responsibility of the organization as a whole, not just the responsibility of certain individuals. Therefore, while the role of leaders is important, the emphasis on leadership needs to be aligned with a culture of learning that is supported by all levels of management.

Second, although leaders play an important role in supporting learning and willingness to change, overemphasizing responsibility for leaders can overlook the importance of an organizational culture that supports learning. Learning should be a practice recognized by all members of the organization, not just by leaders. Therefore, organizations need to promote a culture that empowers and fosters learning at all levels, not just at the leader level.

Third, although there is evidence showing a significant relationship between strategic leadership for learning and readiness to change, it is important to remember that organizational change often involves broader aspects than just learning. There are factors such as organizational structure, organizational culture, and external factors that also play an important role in shaping the willingness to change. Therefore, overemphasizing the role of leadership in learning can ignore other factors that also affect the willingness to change.

In conclusion, while strategic leadership for learning is important to increasing readiness to change, it is also important to take into account the organization's weaknesses and unique needs in the context of this relationship. By aligning leadership responsibilities with a culture of learning supported by all levels of the organization and acknowledging the role of other factors in shaping readiness to change, organizations can maximize the positive impact of this relationship in achieving ongoing readiness to change.

2.27 Knowledge Sharing Moderates Learning Organization and Readiness To Change Relationship

In today's era of globalization and rapid change, organizations must be dynamic and always ready to adapt and change to survive and grow. Rejecting change is not an option, particularly with the existence of sophisticated and fast communication technology. One way that technology has helped organizations is through knowledge sharing (Sensuse, Lestari, & Hakim, 2021; Lartey, Shi, Santosh, Afriyie, Gumah, Husein, & Bah, 2022; Rusilowati, Metarini, & Sunarsi, 2023). In the local context, studies have found the effectiveness of knowledge sharing using this technology platform. According to Dahri and

Yunus (2018), social media is an effective knowledge management sharing tool in government agencies like the Department of Chemistry Malaysia, reducing red tape and enhancing information sharing.

Knowledge sharing is a process in which individuals or groups in an organization share information, experiences, and ideas to improve collective understanding and skills. According to Lim and Ok (2021), sharing knowledge within an organization can help it stand out in the market and achieve long-term success. When knowledge sharing is combined with organizational learning, it can lead to significant improvements in innovation and organizational performance (Laily, Wahyuni, Koesmono, & Sari, 2023). This combination can help organizations develop a more adaptable and resilient culture, which enables them to respond better to customer needs. The statement is supported by Nurcahyo (2020) that found knowledge sharing has a positive impact on learning organizations by revealed that digital technology play a crucial role in innovation growth, which leads to improved performance. In essence, knowledge sharing and organizational learning can help organizations become more agile and better equipped to deal with change readiness.

How organizations manage and share their knowledge can significantly impact their ability to learn and be ready to face change. Knowledge sharing has a positive effect on organizational performance, as shown in a study by Kyei-Frimpong, Adu, Suleman, and Boakye (2022), which found that knowledge sharing mediates the relationship of organizational performance in the Ghanaian financial service sector. However, the study findings by Kyei-Frimpong, Adu, Suleman, and Boakye (2022) are inconsistent with the study findings of Zhou, Duan, Qiu, and Yang (2022), who found knowledge sharing's

impact is weak. One of the factors that cause this inconsistent finding may be due to different cultural factors where the study location of Zhou, Duan, Qiu, and Yang (2022) is in China and among public library librarians.

Learning is a crucial factor influencing knowledge sharing (Ro, Yoo, Koo, & Song, 2020). A learning organization is an entity that can gather, store, and use knowledge effectively. When individuals share their knowledge, the organization creates a learning culture that positively influences behavior, according to Chedid, Caldeira, Alvelos, and Teixeira (2020). Active knowledge sharing can increase staff flexibility and adaptability to change, contributing to shared experience and learning and forming a solid foundation for innovation and renewal. Overall, knowledge sharing is believed to provide various benefits, including improving knowledge itself (Kadiyon & Judawinata, 2021).

The relationship between sharing knowledge and readiness to change is very close. When knowledge is communicated openly, individuals tend to be more receptive to new ideas and achieve a deeper understanding of the changes needed (Galli, 2020). This stimulates a mental process where employees not only accept change as a necessity, but also see it as an opportunity for growth and development. This situation has a positive spillover effect not only on the organization itself, but also on the career development of staff members. In addition, sharing knowledge stimulates a sense of shared ownership of the organization's goals and vision (Azeem, Ahmed, Haider, & Sajjad, 2021; Lim, & Ok, 2021). When every member of an organization feels that their thoughts and views are valued, they are more likely to commit to proposed changes. This creates a positive relationship between sharing knowledge and willingness to change, where they mutually reinforce each other.

There are several ways in which organizations can improve knowledge-sharing practices. Support systems such as digital platforms, learning communities, and periodic training can provide impetus for knowledge sharing (Yao, Crupi, Minin, & Zhang, 2020); Fattah, Yeşiltaş, & Atan, 2022). In addition, organizational leaders need to play an important role in supporting and fostering a culture of knowledge sharing (Al-Kurdi, El-Haddadeh, & Eldabi, 2020; Pratama, Syamsuddin, Oktora, & Sunarsi, 2021).

Overall, the importance of sharing knowledge in influencing learning organizations and the relationship of readiness for change cannot be ignored. Organizations that understand the importance of sharing knowledge can create a dynamic learning culture and, in turn, build a solid readiness to face and embrace change. Thus, developing and maintaining the knowledge-sharing process is a worthwhile investment for a successful future organization. However, the opposite situation may occur.

However, there are several reasons why knowledge sharing may not affect learning organization and readiness to change relationships. For example Baporikar (2020) thinks factors like personal characteristics, group characteristics, trust, and culture can affect knowledge sharing behaviors. In addition, the influence of altruism is also linked as a predictive factor of knowledge sharing behavior between employees (Obrenovic, Jianguo, Tsoy, Obrenović, Khan, & Anwar, 2020). These factors are more organizational and individual factors where they lead to elements of human resource itself.

Even though sharing knowledge is an important aspect of modern organizations, challenges may limit the positive influence of sharing knowledge on organizational learning and relationship readiness for change. One of the main challenges is the lack of a

learning culture that encourages knowledge sharing (Castaneda, & Cuellar, 2021; Chedid, & Teixeira, 2021; Kadhim, Al-Hussein, & Alfaras, 2021). If the organization does not foster an environment where failure is seen as an opportunity to learn and improve, individuals may feel uncomfortable sharing their knowledge. The fear of criticism or failure can hinder this process by masking the good intentions of an employee, and this can have a negative effect on the learning of the organization as a whole, which will surely only harm the organization.

In addition, the lack of infrastructure and technological support can also be a barrier to the positive effects of knowledge sharing (Oliveira & Pinheiro, 2020; Degn-Andersen, 2021; Chua, Thinakaran, & Vasudevan, 2023). Organizations that do not invest in an efficient knowledge storage and distribution system may face difficulties in managing and sharing information effectively. This can limit the accessibility and severity of the knowledge sharing process. In addition, factors such as accessible wifi facilities or the internet will also help to be a barrier to knowledge sharing and organizational learning.

Organizational leaders also play an important role in determining the effectiveness of knowledge sharing (Kashari & Taheri, 2020; Shahnawaz & Zaim, 2020; Lopes & Santos, 2021). Employees may be less motivated to engage in this process if leaders do not show support and commitment to a culture of learning and knowledge sharing. This lack of support can lead to a lack of encouragement for change and learning. In addition, the leader's ability as a role model for his subordinates will also strengthen the practice of knowledge sharing and learning organization.

The perception of justice in the organization can also influence the willingness of individuals to share knowledge (Gupta, Wang, & Cai, 2020; Moon, 2021; Putri, & Tirtoprojo, 2023). If employees feel that they are not valued or do not benefit from sharing knowledge, they may become less interested in actively engaging. This will encourage negative practices such as knowledge hoarding. This situation can have a negative impact on the organization's ability to learn and subsequently face the changes that occur.

In addition, the fall in the process of sharing knowledge can also have a negative impact on the relationship of readiness for change (Wibowo & Rakhman, 2023). If organizations are unable to adapt shared knowledge into their change initiatives, then the relationship between knowledge sharing and readiness for change may not be well implemented.

In conclusion, although sharing knowledge is an important element in the development of learning organizations and readiness for change, challenges and factors can limit its positive effects. Therefore, organizations need to overcome these challenges by focusing on developing a learning culture, providing technological infrastructure, supporting leaders, and constructing an environment that promotes fairness and the benefits of sharing knowledge. With that, organizations can maximize the potential of sharing knowledge and stimulate learning and readiness for effective change.

2.28 Chapter Summary

Concepts, hypotheses, models, meanings, terminology, study variables, and previous research literature have all been discussed in this chapter. The research design,

population, sampling, data collection system, pilot study, and data analysis will all be covered in the next chapter.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methods and procedures for collecting and analyzing data. Several important aspects such as research paradigm, unit of analyses etc will be discussed at this chapter. This chapter is crucial because it includes information on the population, sample, research paradigm, instrumentation, data collection methods, data analysis strategy, and research philosophy.

3.2 Research Paradigm

Research paradigms is the assumptions implied in social science research and underpinned by a philosophical base. Research paradigm to influence and how the results should be interpreted and the research should be conducted (Bryman, 2004). Tobias, Huber, and Tamas (2013) and Hill and Wright (2001) contend ontology, epistemology, and axiology are key philosophical dimensions that constitute the various research paradigms.

The two principal research concepts in social research: interpretive and positivist paradigms. The positivist paradigm is keeping with the objectivist ontology, positivist epistemology, and value-free axiology. Meanwhile, the interpretive paradigm adheres to constructionist ontology, interpretive epistemology, and axiology inclusive of values (Hanson, & Grimmer, 2007; Kim, 2003; Hill, & Wright, 2001). These two paradigms differ on a range of other dimensions, including the types of reasoning they employ (Bryman, 2004; Cavana et al., 2001). Research underpinned by the positivist paradigm

employs deductive reasoning, whereby theory guides the research. In contrast, research that is underpinned by the interpretive paradigm employs inductive reasoning, in which theory is an outcome of the research. They also differ in the research methods they utilised and the criteria by which they are judged (Bryman, 2004; Kim, 2003; Cavana et al., 2001). This section of the study will present a profound understanding of research philosophy and the philosophy behind this research project. It may help the reader to have better insights into the philosophical stance of the research.

3.2.1 Ontology

Ontology is defined by Crotty (2003) as the study of being. It is concerned with "what kind of world we are investigating, with the nature of existence, with the structure of reality as such" (Crotty 2003, p.10). Guba and Lincolin (1989) defined ontological assumptions as those that respond to the question "what is there that can be known?' or 'what is the nature of reality?" (p.83). In this world, researchers have to assume that the world they investigate is a world populated by human beings who have their own thoughts, interpretations and meanings.

Hill and Wright (2001) argue that ontology involves consideration of how people see the world and try to interpret it as a reality. There are two endpoints for ontology, namely objectivism, and constructionism (Bryman, 2004). Objectivism is based on the idea that the phenomena being studied have their objective realities that are fixed and concrete regardless of what the researcher does (Bryman, 2004; Sheehan, 2004). This approach leads to the researcher being apart from the participants so that decisions can be made objectively. Meanwhile, constructionism takes an alternative view and sees the phenomena

being studied as having emergent realities that are constructed by social actors (Hanson & Grimmer, 2007; Sheehan, 2004).

In the context of research, ontology helps us to understand and formulate a view of what is considered to be "reality" or "exist" in the study. It guides the researcher's thinking about what can and cannot be researched, as well as how that reality is considered in the context of the study. In quantitative research, ontology plays an important role in determining the understanding of the objectivity and validity of the data. Quantitative research seeks to measure phenomena in the form of measurable data, and ontology provides the basis for the interpretation of such data.

First of all, in quantitative research, ontology helps in determining whether reality is objective or subjective. Is the object being investigated considered as a self-existent entity, or may it depend on individual perception? For example, in the study of customer satisfaction, ontology will influence the way researchers understand and measure the concept of "customer satisfaction". Is it considered something that exists objectively, or does it depend on different customer perceptions?

Second, ontology helps in determining whether reality is fixed or changing. In quantitative studies, researchers may seek to make generalizations or conclusions that can be applied to a larger population. Ontology guides researchers in understanding whether the reality they study is something consistent and fixed or it may change over time. For example, in a study on social media usage trends, an ontology will help in determining whether usage patterns are constant or changing over time.

Third, ontology helps in determining the relationship between the researcher and the object of study. In quantitative research, ontology determines whether the researcher is an observer who does not interact directly with the subject of the study, or on the contrary, they engage in direct interaction with the subject. This ontology can influence the data collection and measurement process in the study.

Overall, ontology is an important foundation in quantitative research. It shapes the researcher's view of the reality being studied and how that reality is interpreted and measured. By understanding the ontology in depth, researchers can make better decisions about study design, the selection of data collection methods, and the analysis and interpretation of data in their quantitative studies.

In the context of this study, ontology plays a role in shaping the view of organizational reality, readiness to change, and knowledge sharing processes. First, in terms of learning organizations, ontology helps in formulating a view of organizational reality and the importance of learning in that context. Ontology affects how learning organizations are defined, either as a consistent and objective entity in the pursuit of acquiring and applying knowledge, or as a construct that is subjective and dependent on the perception of individuals in the organization.

Second, ontology also plays a role in the understanding of readiness to change in organizations. It helps in determining the nature of the reality of willingness to change - whether as something fixed or changing over time. Ontology also guides in understanding whether the readiness to change is something that is objective or more subjective, depending on the perception and interpretation of individuals in the organization.

Third, ontology also affects the understanding of how knowledge is shared in organizations. It helps in determining the nature of the reality of the knowledge sharing process - whether it is consistent and objectively measurable, or more subjective and dependent on individual perception. Ontology also influences the view of how the knowledge sharing process takes place, either through formal structures or informally through interactions between individuals in the organization.

By understanding the ontology that forms the view of organizational reality, readiness to change, and knowledge sharing processes, researchers can make better decisions about study design, selection of data collection methods, and data analysis and interpretation in their studies. This provides a solid foundation for researching the complex relationship between learning organizations, readiness to change, and knowledge sharing in the context of planned research. Therefore, this study ontology is objectivism.

3.2.2 Epistemology

Epistemology is the theory of knowledge. It relates to with the span and nature of knowledge, including analysing the nature of knowledge in a specific discipline. The two epistemological continuum are positivism and interpretivism. Positivism is based on the notion of a unitary objective reality (Morgan, & Drury, 2003; Kim, 2003) and presents facts as universal truths (Khan, 2014; Kim, 2003; Cavana, Delahaye, & Sekaran, 2001). In contrast, interpretivism is based on the view that the world being studied potentially has multiple realities based on the interpretations of participants and researchers alike (Kim, 2003). On the surface, these views might appear to be contrasting, but arguments can be

presented to support the notion that all research is interpretive to some degree (Gummesson, 2003).

Crotty (2003) defined epistemology as “a way of understanding and explaining how we know what we know”(p.3). Epistemology is also “concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate” (Maynard, 1994, p.10). The following questions form the basis of epistemology: What's the link between the knower and the thing that's known? What proof do we have that we believe what we know? What constitutes knowledge?. In the opinion of positivists, the purpose of research is to obtain a scientific explanation. According to Neuman (2003), positivism views social science as a tool for integrating deductive reasoning with precise empirical observations of individual actions to discover and validate a collection of probabilistic causal rules that can be used to predict general trends of human activity. Therefore, the epistemological stance used in this study is positivism. This is in line with the opinion of Godwin et al. (2021) and Afubwa and Kauka (2023), who argue that quantitative methodologies are often rooted in (post)positivist epistemologies, which rely on statistical methods to determine significant results and generalize findings across groups.

For positivists, social reality has the following characteristics: empirical facts occur independently of personal ideas or thoughts; they are regulated by laws of cause and effect; social reality trends are constant, and knowledge of them is additive (Crotty, 1998; Neuman, 2003; Marczyk, DeMatteo and Festinger, 2005). Ulin, Robinson and Tolley (2004) argue that the general assumption for the postivists paradigm is that the goal of science is to develop the most objective methods possible to get the closest approximation

of reality. Researchers who work from this perspective explain in quantitative terms how variables interact, shape events, and cause outcomes (Ulin, Robinson & Tolley, 2004). They often develop and test these explanations in experimental studies. Multivariate analysis and techniques for statistical prediction are among the classic contributions of this type of research.

3.2.3 Axiology

Axiology is the philosophical study of values and about research, and it is concerned with what personal role values played in the research process (Hill, & Wright, 2001). The opposing axiological stances are one that promotes research as being value-free and involving the denial of the influence of values; and an alternative approach that includes and makes explicit the values of participants and researchers.

Axiology, as one of the three main branches in research philosophy, plays an important role in determining values, ethics, and objectivity in research. In the context of quantitative research, axiology has profound implications in formulating and implementing quality research as well as ensuring the reliability and accuracy of the data collected.

First, axiology helps in defining the values that guide research. These values involve ethical and moral principles that need to be taken into account when planning and implementing the study. In quantitative research, it is important to ensure that values such as integrity, fairness, and truth are carefully observed. For example, when collecting data from respondents, researchers need to ensure that their privacy and confidentiality are carefully guarded and that data is collected and processed honestly and transparently.

Second, axiology plays a role in determining the objectivity of the study. In quantitative research, objectivity is important to ensure that the data collected is not contaminated by the researcher's personal views or opinions. Axiology guides researchers in maintaining impartiality and rigor in research, ensuring that data is collected and analyzed in a systematic and unbiased manner. This gives confidence to the reader of the study about the accuracy and reliability of the data presented.

Third, axiology helps in determining ethics in the reporting and use of research results. Quantitative researchers need to ensure that the results of the study are reported honestly and transparently without manipulating or hiding data that is inconsistent with the original hypothesis. In addition, ethics also guide the use and interpretation of data, ensuring that the conclusions drawn are based on solid evidence and are not tainted by bias or personal interest.

In conclusion, axiology plays an important role in quantitative research by shaping values, ensuring objectivity, and ensuring ethics in all aspects of research. By understanding the implications of axiology in research, quantitative researchers can produce studies of high quality, integrity, and relevance, which contribute to scientific progress and a deeper understanding of the studied phenomenon.

In the context of this study, axiology plays an important role in shaping values, objectivity, and ethics in the research. First, axiology guides researchers in setting the values that underlie this study. Values such as honesty, integrity, and fairness are important in ensuring that research is carried out responsibly. Researchers may practice these values

by ensuring that the data collected is processed transparently and not contaminated by unwanted bias.

Second, axiology helps in maintaining objectivity in the study. In the relationship between learning organizations, willingness to change, and knowledge sharing, it is important to ensure that the data collected and analyzed are thorough and unbiased. Researchers need to ensure that the interpretation of data is based on solid evidence, and not influenced by personal views or opinions.

Third, axiology guides researchers in dealing with ethics in research. In the context of knowledge sharing and willingness to change, it is important to ensure that the privacy and confidentiality of respondents are protected and that data is used with courage. Researchers need to ensure that the results of the study are reported honestly and transparently and are not tainted by personal or organizational interests.

By understanding the implications of axiology in this research, researchers can conduct research with high integrity, objectivity, and ethics. This will ensure that the results of the study make a valuable contribution to the scientific literature and provide deeper insight into the relationship between learning organizations, readiness to change, and knowledge sharing in the context of the planned research.

3.3 Research Design

The civil servants are the study's analysis units that worked in various federal agencies located surroundings Kuching and Kota Samarahan, Sarawak. The study adopted quantitative research and a cross-sectional approach. The purpose of adoption of quantitative research methods is to provide accurate and reliable measurements that allow

for statistical analysis, making them suitable for studies requiring objective data besides these methods can mitigate personal bias by focusing on numerical data rather than subjective interpretations and the results obtained from quantitative research are often generalizable to larger populations, making them useful for studies aiming to apply findings broadly (Savela, 2017). While the cross-sectional approach is relatively quick and affordable, enabling the production of timely findings, cross-sectional studies are generally less expensive and quicker to conduct compared to longitudinal studies, making them accessible and practical for researchers with limited resources (Ray, 2020; Gamble et al., 2020).

3.4 Population and Sampling Technique

Civil servants are the study's target population that working at the various federal agencies located in surroundings Kuching and Kota Samarahan, Sarawak. Federal departments have been chosen because previous studies only focus on uniformed bodies by marginalizing other federal departments. It is important since the federal government department is the backbone of government policy implementation in Malaysia.

As per the Sarawak Federal Secretary's Office website (https://www.supsrwk.gov.my), there are a total of 171 federal departments or agencies in Sarawak. These departments include federal departments and agencies, statutory bodies, and government-linked Companies (GLCs). Due to cost, time, and energy constraints, this study does not cover other federal departments and agencies outside Kuching and Kota Samarahan. The characteristics of the federal government departments or agencies involved in the study are diverse, such as service providers in the field of law (Attorney

General's Department), information technology (MAMPU), social (National Unity Department), and enforcement (Malaysian Immigration Department). However, the management and administration methods, as well as the organizational structure, are similar to each other.

The research population consisted of 811 employees, as detailed in Appendix C. This data was obtained either through the corresponding website or direct communication with a specific department or agency. This study has distributed a total of 1000 self-administered questionnaires to respondents. As a proactive measure against unexpected circumstances that can reduce the number of respondents involved, such as if there are respondents who misplace the questionnaire or accidentally damage the questionnaire, this study distributes more questionnaires (oversampling) than the total population in each department for each department involved with an additional eight questionnaires for each department involved. This is intended considering that this study uses a traditional method where questionnaires are distributed directly to the departments and respondents involved, and therefore, the probability of unexpected circumstances, as mentioned above, is likely to occur. The number includes the total number of respondents, which is 811 people, and an additional eight questionnaires for each department involved (n=995). However, in order to complete the amount, 1000 questionnaires were distributed (See appendix C). According to Sakaran (2009), a sample size of 201 to 234 respondents is required for a population of 800 to 900 (See appendix A).

This study adopts simple random sampling so that each respondent has an equal chance to be selected to participate in this survey (Latpate, Kshirsagar, Gupta, & Chandra, 2021; Hankin, Mohr, & Newman, 2019). Besides that, simple random sampling ensures representativeness and accuracy (Dura, Drigă, & Niță, 2010) and provides more robust results (Zelin, & Stubbs, 2005). The number of respondents involved are obtained from each department concerned. A drop-in method was used because respondents may not be in the office when questionnaires are distributed. Aside from that, it is also to accommodate respondents with demanding work schedules (Lee, Kuldip & Sueb, 2004).

3.5 Pilot Study

Pilot study or pilot test was conducted and involved departments with similar structure prior to the actual study. This aims to get an initial overview of the study from departments or agencies with more or less the same organizational structure or administrative style. For this purpose, four federal departments were involved. In this pilot study, 40 questionnaires were distributed based on simple random sampling and 34 questionnaires were collected back. The response rate was 85%. However, only 30 questionnaires were usable as four questionnaires were incompleted. The number of respondents for the pilot study was chosen according to the recommendations of Radhakrishna (2007) and Lee, Mat, Tan, Low, Zain, and Mahdi (2022), who asserted that pilot study respondents have to be in the range of 20 to 30 people in a single pilot study. However, some researchers, such as Johanson and Brooks (2010), contend that pilot studies with a minimum of 10 participants are enough, which are sufficient for initial scale development, considering item difficulty, discrimination, internal consistency, response rates, and parameter estimation.

Respondents involved based on their own willingness and time given was one week time to complete the questionnaire before collected back by the researcher. Teijlingen and Hundley (2001) argued that a pilot study is important because of preliminary data collection, research instruments testing, and researchers' understanding of the research process. In addition, Saunders et.al. (2009) defined pilot test as "small-scale study to test a questionnaire, interview checklist or observation schedule, to minimise the likelihood of respondents having problems as well as to allow some assessment of the questions' validity and the reliability of the data that will be collected" (p.597). **Table 3.1** showed the respondents' demographic for pilot study. In pilot study 26.7% male and 73.3% female respondents participated, represent more than half of the respondents were female. In terms of age, 60% respondents represent the age group of 31-40 which is the highest percentage among other age group. The highest academic qualification is Diploma level because it shows 36.7% of the academic qualification among all other group. The highest job category was supporting staff with 80% while 20% were in professional and management group. More than 40% were education department staff, followed by Health department with 26.7% respondents, Information department (20%) and Custom department with 13.3% participants. Most of the respondents were diploma holders that accounted for 36.7% of overall participants. For the respondent's length of services most of them have been working for less than 10 years with 50%.

Table 3.1: Respondents' demographic for pilot study

	Demographic	**N**	**%**
Gender	Male	8	26.7
	Female	22	73.3
Age (Years)	18-30	3	10
	31-40	18	60
	41-50	7	23.3
	51-60	2	6.7
Job category	Professional and management	6	20
	Supporting staff	24	80
Education level	Ph.D.	0	0
	Master's degree	1	3.3
	Degree	4	13.3
	Diploma	11	36.7
	STPM	4	13.3
	SPM	10	33.3
Length of service	Less than 5 years	3	10
	Less than 10 years	15	50
	Less than 15 years	5	16.7
	Less than 20 years	4	13.3
	More than 20 years	3	10
Departments	Education department	12	40
	Health department	8	26.7
	Custom department	6	20
	Information department	4	13.3

Table 3.2 represents the pilot test Cronbach's alpha coefficient for the learning organization, readiness to change and knowledge sharing. From the Table, it can be seen that alpha coefficient of learning organization, readiness to change and knowledge sharing were .799, .761, .898 respectively. Based on results of reliability analysis of three variables (one independent variables, one dependent variable and one moderating variable), it can be seen that all of the variables accepTable by rule of thumb from Cronbach's alpha. The closer the reliability coefficient gets to 1.0, the better.

Table 3.2: Pilot study instruments reliability

	Learning organization	**Readiness to change**	**Knowledge sharing**
Cronbach's alpha	0.799	0.761	0.898

3.6 Quantitative Data Collection and Data Analyses Procedures

It is crucial to conduct ethical and reliable data collection in research. This process involves three phases that each play a significant role in ensuring the validity of the data collected.

The pre-collection phase is where researchers lay the foundation for their data collection strategy. This phase includes defining research objectives, formulating research questions, and selecting an appropriate methodology. Ethical considerations in this phase include obtaining necessary permissions, ensuring an informed consent protocol, and addressing any biases that may exist in the research design.

During the collection phase, researchers implement the planned data collection method. Ethical aspects of this phase involve maintaining participant confidentiality, ensuring voluntary participation, and minimizing any potential harm to participants. Continuous monitoring and adaptation to unexpected challenges are crucial in this phase.

The post-collection phase involves organizing, cleaning, and analyzing the gathered data. Ethical aspects include ensuring the anonymity of participants during data analysis and accurate reporting of results. Researchers must also securely store data and be transparent about any limitations or biases in the data collected.

This study used three instruments: dimensions of learning organisation (DLOQ), readiness to change, and knowledge sharing behaviour. Watkins and Marsick's (1993, 1996) Dimensions of Learning Organization Questionnaire (DLOQ) was adapted to measure learning organisation variables. The DLOQ was selected as it is a reliable research instrument with greater use in human resource development-related disciplines (Song, Chermack, & Kim, 2013). Each item is scored on a five-point Likert scale (1=strongly disagree; 5=strongly agree) and has seven dimensions. The original DLOQ has 43 items. However, in this study, the DLOQ item has been expanded to 46 items since there are items that are "double-barreled."

Data collection was conducted by distributed 811 copies of self-administered questionnaires to respondents. Envelopes with the researcher's address are attached and posted back to the researcher in order to increase respondents' participation. Before the questionnaires are distributed, an appointment with respective department human resource heads to be arranged to discuss several pertinent matters such as the important of questionnaire distribution to every employees' ranks level to ensure the sample represent all the population. Then, the questionnaires were handed over by the researcher to respective human resource sections or units. Three weeks are needed for data collection. Between that period of time, the researcher made three telephone calls to the respective departments' human resource section head as a soft reminder. The feedback received from the respondents would lead the researcher to make changes if needed. However, the respondents have no problem understanding the questionnaires. The quantitative results were evaluated using the Statistical Package for Social Science (SPSS version 29) for windows and SmartPLS 4.

3.6.1 Dimensions of Learning Organization (DLOQ)

Six items are included in the create continuous learning opportunities to measure the learning opportunities provided by the organisation to its members. Seven items are included in the promote inquiry and dialogue questionnaire to assess the openness of the communication process between organisational members. Encourage collaboration and team learning has six items to reflect the employee teamwork initiative. Meanwhile, six items are included in the create system to capture and share learning to assess the system of sharing knowledge among organisation members for the organization's benefit. Empower people toward a collective vision includes six items that measure the empowerment process for employees in order to achieve the organization's mission and vision. The dimension of connect the organisation to its environment consists of seven items that are used to assess the relationship between employees and external customers with the organisation. Finally, there are eight items in providing strategic leadership for learning to assess organisational leadership.

Table 3.3: Dimensions of Learning Organization (DLOQ)

Dimension	Item	Number of item
Create continuous learning opportunities (Individual level)	1 - 6	6
Promote inquiry and dialogue (Individial level)	7 - 13	7
Encourage collaboration and team learning (Team/group level)	14-19	6
Create systems to capture and share learning (Team/group level)	20-25	6
Empower people toward a collective vision (Organizational level)	26-31	6
Connect the organization to its environment (Organizational level)	32-38	7
Provide strategic leadership for learning (Organizational level)	39-46	8

N=46 Items

3.6.2 Readiness To Change

An 18-item Attitude toward Change Scale developed by Dunham et al. measures perceptions of organisational readiness to change (1989). The scale consists of six items and is scored on a 5-point Likert scale (1-Strongly disagree; 5-Strongly agree).

Table 3.4: Subscales of the inventory of attitude toward change survey

Item	Question
Item 3	I usually resist new idea
Item 4	I don't like change
Item 7	Change frustrates me
Item 12	I often suggest new approaches to things
Item 13	Most changes are irritating
Item 18	I usually hesitates to try new ideas
Item 1	I look forward to change at work
Item 2	Change usually benefits the organization
Item 5	Most of my co-workers benefit from change
Item 6	I am inclined to try new ideas
Item 9	I usually support new ideas
Item 11	Other people think that I support change
Item 8	Change often helps me perform better
Item 10	Change tends to stimulate me
Item 14	Change usually helps improve unsatisfactory situation at work
Item 15	I intend to do whatever possible to support change
Item 16	I find most change to be pleasing
Item 17	I usually benefit from change
Item 9	I usually support new ideas
Item 11	Other people think that I support change
Item 8	Change often helps me perform better
Item 10	Change tends to stimulate me
Item 14	Change usually helps improve unsatisfactory situation at work
Item 15	I intend to do whatever possible to support change
Item 16	I find most change to be pleasing
Item 17	I usually benefit from change
Item 9	I usually support new ideas

Source: Dunham et al., 1989, p.11.; N=18 items

3.6.3 Knowledge Sharing Behaviour

Perception of knowledge sharing behaviour is adapted from Chennamaneni (2006). According to Chennamaneni (2006), knowledge sharing behavior scale were developed

based on Bock. et. al. (2005), Teigland and Wasko (2003) and Lee (2001) and measures how frequently respondents shared work-related knowledge with their coworkers in the past year. All items were measured on a 5-point Likert scale (1-very unfrequently; 5-very frequently). Chennamaneni (2006) found composite reliability for this instrument is 0.939 with Average Variance Extracted (AVE) 0.722. Chennamaneni (2006) contend this instrument is reliable as "the internal reliabilities reported by Lee (2001) are 0.901 for the explicit knowledge sharing scale and 0.758 for implicit knowledge sharing scale and Bock et al., (2005) studied individuals intention to share knowledge and reported reliability coefficients 0.92 for intention to share explicit knowledge scale and 0.93 for intention to share implicit knowledge scale." (p.41). Instrumen kajian ini memiliki eight items.

Table 3.5: Subscales of the inventory of knowledge sharing behaviour survey

Item	Question
Item 1	I shared factual knowledge (know-what) from work with my coworkers.
Item 2	I shared business knowledge about the customers, products, suppliers and competitors with my co-workers.
Item 3	I shared internal reports and other official documents with my coworkers.
Item 4	I shared work experiences with my co-workers
Item 5	I shared know-how or tricks of the trade from work with my coworkers
Item 6	I shared expertise from education or training with my co-workers
Item 7	I shared expertise from education or training with my co-workers
Item 8	I shared know-why knowledge from work with my co-workers

Source: Chennamaneni (2006); N=8 items

3.7 Data Analysis

3.7.1 Factor Analysis

SmartPLS 4 was utilized for quantitative data analysis. Factor analysis is conducted for the purpose of measuring the agreeability of this study with the study arrangement conducted by original researcher. It was for the purpose of "to identify the latent construct of questionnaire or test items" (Lay & Khoo, 2010, p.50). They further explained that, it is a variables reduction technique to reduce "them to a smaller number of dimensions" (Lay & Khoo, 2010, p. 50). Lo (2005) defined factor analysis as a "data reduction technique that does not have independent and dependent variables, but an interdependence technique in which all variables are considered simultaneously" (p. 50).

Sekaran and Bougie (2009) indicate factor analysis to "reveal whether the dimensions are indeed tapped by the items in the measure, as theorized" (p.327).To conduct factor analysis, it needs a minimum sample size of five for every variables studied (Lay & Khoo, 2010). Therefore, a minimum of 210 sample size is needed for 42-item DLOQ.

In factor analysis, two approaches are widely used: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). According to Lay & Khoo (2010), EFA is utilized for the purpose "to explore the latent dimensions (factors) in a bunch of questionnaire or test items" (p.50) while CFA is "to verify or reconfirm that all the questionnaire or test items are categorized under the latent dimensions as proposed by previous theories or literatures" (p.50). It is meant that the EFA should be employed if the researcher does not have any prior ideas about the relationship possibility between items

and CFA is used when the researchers "have some prior ideas about the possible relationship among the items" (Lay & Khoo 2010, p.50). As a result, CFA was used in this analysis to determine the adaptability of DLOQ in the local context (Benjamin, 2009).

Principal components (PC), Principal axis factoring (PAF) and Image factoring are the example of factor extractions techniques in factor analysis. However, PC "is the most frequently-used technique to identify latent factors in social sciences research" (Lay & Khoo 2010, p.50). They further explained that it can identify component (factor) that is able to "explain most of the variance in the questionnaire or test items" (Lay & Khoo, 2010, p.50). Some assumptions also have to be taken into account when conducting a factor analysis: sample size, normality, outliers, linearity, multicolinearity and singularity and factorability of the correlation matrix (Lay & Khoo, 2010). Computation of correlation matrix, Factors extraction and Rotation are the steps involved when conducting factor analysis (Lay & Khoo, 2010). In this study, only learning organization (DLOQ) had dimensions or constructs, and factor analysis was conducted to determine which items will fall under its seven constructs. This is because variables like knowledge sharing and readiness to change do not have dimensions or constructs like DLOQ.

3.7.2 Validity Test

Validity test is conducted for the purpose of measuring the agreeability of this study with the study arrangement conducted by original researcher. As such, factor analysis of DLOQ, readiness to change and knowledge sharing bahaviour scale to be conducted for this purpose.

3.7.2.1 Back-to-back translation procedures

Prior to the questionnaires distributions, back-to-back translations procedure is conducted to ensure the items in both English and Malay language languages contain the same meaning. This procedure involved four local teachers in a primary school in Kuching. They were teaching experts in Teaching English as a Second Language (TESL) and Malay language subjects. All of the individuals have been selected based on their educational experience and expertise. All of them were have five to 30 years teaching experiences and most of them have professional experiences of teaching both subjects. Saunders at.al. (2009) suggested "to ask an expert or group of experts to comment on the representation or suitability of your questions" (p.394). Based on their experience and qualifications, they are experts in their respective fields and, therefore, qualified as translators for study items. The procedures of back-to-back translations including grammar and sentences structures checking, sentences paraphrasing and common error checking such as typing error.

3.7.2.2 Reversed score for readiness to change scale

As shown in Table 3.5, items 3, 4, 7, 13, and 18 on the readiness to change scale were negative statements. As a result, the scores for these questions are reversed before further analysis, as suggested by Samad (2009).

Table 3.6: Reversed score for Dunham (1989) model

Response	Negative statement	Reversed score
Strongly disagree / Sangat tidak bersetuju	1	5
Disagree / Tidak bersetuju	2	4
Neutral / Tidak pasti	3	3
Agree / Bersetuju	4	2
Strongly agree / Sangat bersetuju	5	1

3.7.3 Normality Test

A normality test is used to ensure that data distribution is normal. Data skewness and kurtosis are used to determine data normality.

3.7.4 Linearity Test

The goal of the linearity test is to ensure that the homoscedasticity assumption is followed (Coakes, Steed & Dzidic, 2007). Linearity is represented by dots in the straight regression line.

3.7.5 Reliability Test

The reliability test was used to assess the quality of the collected data, and the data was assumed to be reliable when the same event was measured repeatedly and produced the same results (Salkind, 2006; Chua, 2006). As suggested by Hair et al. (2007) as in the **Table 3.6,** cronbach's alpha is adapted to assess data reliability.

Table 3.7: Cronbach's Alpha Values

Cronbach's alpha	Relationship strength
< 0.6	Weak
0.6 - <0.7	Average
0.7 - <0.8	Good
0.8 - <0.9	Very Good
0.9	Excellent

3.8 Data Analysis Procedures

3.8.1 The Justifications of Using the Statistical Analysis Techniques

This study integrates a variance-based Partial Least Square (PLS) technique whereby it is a second-generation technique of data analysis that comes under the umbrella

of Structural Equation Modeling (SEM). The usage of Partial Least Square (PLS) is gradually popular in social science due to its high probability level. Structural Equation Modeling (SEM) is used to perform covariance-based analysis, as well as for variance-based component analysis (Chin, 1998). Likewise, structural equation modeling (SEM) is a more progressive tool of statistical analysis practices and its acceptance is increasing due to its flexibility (Hair et al., 2010). The analysis of multivariate models is very common in social sciences since social science studies frequently employ statistical tools to analyse multivariate models (Table 3.8).

Structure equation modelling (SEM) helps studies to overcome the weaknesses of first-generation techniques as it can handle many variables (Hair et al., 2014). Partial Least Square (PLS) does not need a comparatively large sample size to test a structural model as to compare to other covariance-based (CB-SEM) techniques (Esposito Vinzi et al., 2010). It can perform real-time testing of whole measurement model (between latent constructs and measurement items, the external model) and structural model (between the endogenous and exogenous constructs of the model, the inner model) (Barclay et al., 1995). Partial Least Square (PLS) is an appropriate option to test the hypothetical model of this study.

Table 3.8: Research settings that favour PLS-SEM use

Items	Descriptions
Study goal	To foresee one or more main target construct(s) or to classify the most important antecedents of the target construct(s). It is mostly exploratory in nature (i.e. development of a new or extension of an existing theory). It comprises numerous constructs (normally more than five), many path relationships and/or many indicators per construct (usually more than 6 per construct).
Model set-up	It includes advanced model components such as moderator or hierarchical component models. It includes formative measured constructs. The idea is to use latent variable scores in subsequent analyses.
Data characteristics	The data are non-normal.

Source: Adapted from Sarstedt et al. (2014)

A summary of the instruments and measurements used in this study, is as in **Table 3.9.**

Table 3.9: Study Measurements or Instruments Summary

Objectives	Instruments	Measurements
To determine the perceived level of learning organization, knowledge sharing and readiness to change among civil servants.	DLOQ of Watkins and Marsick (1993, 1996); Chennamaneni (2006) and Attitude toward Change (Dunham et al., 1989)	Mean, standard deviation
To investigate the relationship between learning organization and readiness to change.	DLOQ of Watkins and Marsick (1993, 1996); Chennamaneni (2006) and Attitude toward Change (Dunham et al., 1989)	PLS-SEM
To investigate the influence of knowledge sharing as a moderator on the relationship between learning organization dimensions and readiness to change.	DLOQ of Watkins and Marsick (1993, 1996); Chennamaneni (2006) and Attitude toward Change (Dunham et al., 1989)	PLS-SEM

3.8.2 Ethical Considerations

This study is being conducted solely for academic purposes and is not intended to harm any individuals or organizations in any way. Prior to collecting data from the designated institution, an official letter will be distributed to the respective departments with a detailed description of the research objectives. In order to ensure confidentiality, the identity of all respondents participating in the study will be kept anonymous. It should be noted that respondents will not receive any compensation for their participation in this study and they have the right to decide not to participate or withdraw at any time. All electronic data collected during the study will be stored securely on personal hard disk drives and pen drives to protect the privacy of the participants. Once the study is completed, all electronic data will be deleted to ensure the complete confidentiality of the participants. In addition, respondents from departments involved in the pilot study were not involved in the actual study. It is done by excluding those departments from the distribution list for the actual study to prevent bias.

3.9 Chapter Summary

The methods for addressing research objectives were discussed in this chapter. The DLOQ scale was used in this study to determine the level of the learning organization. The Readiness to change Scale was used to assess people's willingness to change, while the Knowledge Sharing Scale was adapted from Chennamaneni (2006). Respondents were chosen at random from the department database. The findings were then generalized as civil servants' perceptions. SmartPLS 4 was used to determine the level of learning organization and readiness to change, the strength of the relationship between the

variables, the influence of dimensions on readiness to change, and the moderating effect of knowledge sharing on the independent and dependent variables.

CHAPTER 4

ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter explains the findings resulted from the empirical assessment of the theoretical model proposed earlier in the literature review section. The issues of data cleaning, missing values, normality and suspicious response patterns along with descriptive statistics are also discussed. This chapter has been divided into two sections, first section exhibit the findings of learning organization and readiness to change relationship. In the second section, the effect of the moderator is analyzed. Both sections demonstrate the reliability and validity estimates of the measurement model, further the structural model is discussed. The acceptance and rejection of the hypothesis are presented in the end. Statistical Package for Social Sciences (SPSS) version 29 and SmartPLS 4 were used to analyzed the data and interpret the findings.

4.2 Data Collection Issues

In the quantitative studies, the collection and analysis of data is extremely important. As the data in the field of social science is mostly primary and collected through structured questionnaires, it is imperative for researchers to address data related issues (Hair et al., 2014). This research examined the response rate of the survey along with the four data related issues that are missing data, suspicious response patterns, outliers and data distribution.

4.3 Response Rate

The response rate in this study can be defined as the percentage of total survey questionnaires forms received back by the researcher from the participants, namely civil servants who have been involved as study respondents**.** According to Saldivar (2012), "at its simplest level, response rate refers to the number of survey responses divided by number of individuals to whom the survey was administered" (p. 4). Moreover, Tharenou, Donohue, and Cooper (2007) have observed that "the response (or return) rate is the percentage of members of a sample who respond to a questionnaire (or other instrument) from those eligible" (p. 64). Although, it is desired to have a high response rate for improving generalizability and avoiding the non-response error (Saldivar, 2012; Dillman, 1991), but there is no criteria or consensus on how high should the response rate be. Fowler (2002) has stated in this regard that "there is no agreed-upon standard for a minimum acceptable response rate" (p. 42). Different response rates are obtained from different types of surveys.

As mentioned earlier, the present study employs self-administered questionnaire in the data collections process. According to Sekaran and Bougie (2013) the chances of better response rate increases when self-administered questionnaires are adopted. In this study, 1000 self-administered questionnaires were distributed to respondents. To account for potential issues such as misplaced or damaged questionnaires, the study employed an oversampling technique by distributing more questionnaires than the total population in each department. Specifically, an additional eight questionnaires were distributed for each department involved. This approach was adopted due to the traditional method of questionnaire distribution directly to the departments and respondents, which posed a

higher probability of unexpected circumstances. The total number of respondents was 811, and an additional eight questionnaires were allocated for each department involved, resulting in a distribution of 995 questionnaires. To ensure completeness, 1000 questionnaires were distributed overall. From that, 411 were collected back. This result has a response rate of 41.1%. However, from that number, usable questionnaires were 347 (Refer to Appendix c). Most sample surveys "attract a certain amount of non-response, thus, it is likely that only some of our sample will agree to participate in the research" (Bryman & Bell, 2011, p. 188).

4.4 Missing Data

When a participant does not respond to a question on purpose or inadvertently, issues of missing data appear. Researchers in the field of social science mostly collect data through surveys so if the data is missing it becomes problematic. Therefore, if there are too many missing responses against one construct then that observation is deleted even if the overall missing values are less than 15%.

SmartPLS 4 offers two approaches in order to handle missing values namely, 'mean value replacement' and 'casewise deletion'. In the former approach the missing values are managed in a way that they are replaced with the indicator's mean that results from the valid values of that indicator. One disadvantage of using mean value replacement approach is that it reduces the discrepancy in the data therefore; it may affect the data in finding significant relationships. To avoid this situation Hair et al. (2014) recommended using mean value replacement only when the missing values are below 5% per indicator. Alternatively, we can also use casewise deletion in SmartPLS 4 which removes all the

observations that are having missing values. Casewise deletion must be done with extreme care as it may delete systematically a specific group of respondents and may further result in decreased number of observations. This study found 48 questionnaires with missing data or incomplete and were removed.

4.5 Suspicious Response Patterns

Suspicious response patterns refer to inconsistent or straight lining answers. For example if a respondent is given a questionnaire on which a five point likert scale is displayed to record the responses and the respondent marks 3 (neutral) against all questions or 1s or 5s, then the response pattern becomes suspicious. Another inconsistent approach is sometimes found in the responses given by the respondents which is diagonal marking on the likert scale (i.e. starting from 1 as the answer of first question and moving further towards 2, 3, 4 and 5 against second, third, fourth and fifth questions respectively and then coming backwards in the same way). It is recommended by Hair et al. (2016) that before doing data analysis researchers must examine response patterns as it helps in getting rid of unwanted observations. Sometimes to address this issue of inconsistency similar questions are placed in the questionnaire to check if the respondent marks the same answer to those questions or not. This study found 16 questionnaires with suspicious response patterns and deleted those observations.

4.6 Outliers

Outliers are “observations with a unique combination of characteristics identifiable as distinctly different from the other observations” (Hair et al., 2010, p. 62). In order to deal with outliers, the first step is to identify them. This study utilized SPSS Version 29

software to identify outliers by developing boxplots. This is consistent with Mooi and Sarstedt (2011) that developing box plots and stem-and-leaf plots could be used to identify outliers.

After the identification of outliers by respondent number, the next step is to decide whether to delete cases with outliers or not. For example, in case of a few outliers in the data, the approach that is used more often is simply removing those particular respondents having outliers. But if the case is otherwise i.e. there is an increased number of outliers, then researchers must consider the assumption of having a unique and distinct subgroup within the sample (Hair et al., 2014, p. 53). The data used in this study contained several cases of outliers which were removed from the sample.

4.7 Data Distribution

SmartPLS 4 is considered a nonparametric statistical technique and therefore does not have any requirement of data normality. Nevertheless, it must be verified that the data is not exceedingly non-normal which creates problems to assess significance of the parameters. Standard errors resulting from bootstrapping are increased when the data is extremely non-normal therefore decreasing the probability of assessing the relationships as significant (Hair et al., 2011; Henseler et al., 2009). To test the normality of the data, there were several tests can be utilized such as examine the measures of skewness and kurtosis, Kolmogorov-Smirnov and Shapiro-Wilks. In this study skewness and kurtosis measures is utilized to test data normality.

Skewness is the degree to which the distribution of a variable is symmetrical. If the responses for a particular variable are stretched towards one end of the distribution which

can be left or right end, the response distribution is known as skewed (Pallant, 2016, p. 100). While Kurtosis gives information regarding the 'peakedness' of the distribution i.e. narrow distribution having response pattern in the center. The data considered being normal for the range of skewness from -2 to +2 (Hair et al., 2010; Byrne, 2010; Garson, 2012) and kurtosis from -7 to +7 (Hair et al., 2010; Byrne, 2010). The present study examined the measures of skewness and kurtosis and found the data to be normally distributed as the values obtained from skewness and kurtosis are within the acceptable threshold level of normal distribution.

Table 4.1: Data distribution based on skewness and kurtosis

	Skewness	**Std. Eror**	**Kurtosis**	**Std. Eror**
Readiness to change	0.282	0.131	1.976	0.261
Kowledge Sharing	-0.871	0.131	1.514	0.261
Learning Organization	-0.519	0.131	1.931	0.261
Create continuous learning opportunities (Individual level)	-0.896	0.131	4.254	0.261
Promote inquiry and dialogue (Individual level)	-0.781	0.131	2.686	0.261
Encourage collaboration and team learning (Team/group level)	-0.563	0.131	2.757	0.261
Create systems to capture and share learning (Team/group level)	-0.717	0.131	2.686	0.261
Empower people toward a collective vision (Organizational level)	-0.583	0.131	1.845	0.261
Connect the organization to its environment (Organizational level)	-0.230	0.131	1.252	0.261
Provide strategic leadership for learning (Organizational level)	-0.546	0.131	4.503	0.261

4.8 Respondents' Demographic Profile

The respondents are composed of 45% males and 55% females. Most of the respondents (51%) were 31-40 years old, followed by 23.9% respondents of 41-55 years old and 18.2% respondents of 18-30 years old. The least respondents were at the age group

of 51-60 years with 6.9%. With respect to marital status, 25.4% were single. 72.3% respondents were married, while 2.3% were in others category. In this study, most of the respondents are from the Supportive group with 87.6%, while Professional and Management group are 12.4 %. With regards to academic qualifications a majority of the respondents have Diploma with 33.4%, Malaysian Education Certificate with 14.7%, Bachelor Degree with 17%, Master's Degree with 2.6%, Ph.D with 0.6% and others 1.2%. Majority of the respondents were Malay at 66.3%, *Bumiputera* at 26.2%, Chinese at 5.8% and others at 1.7%.

Table 4.2: Profile of Respondents

Variable	Frequency	%
Gender		
Male	156	45
Female	191	55
Age		
18 - 30	63	18.2
31 - 40	177	51
41 - 55	83	23.9
56 years and above	24	6.9
Marital status		
Married	251	72.3
Single	88	25.4
Others	8	2.3
Job category		
Professional and management	43	12.4
Supportive group	304	87.6
Qualification		
Ph.D	2	0.6
Master's Degree	9	2.6
Bachelor Degree	59	17
Diploma	116	33.4
STPM	51	14.7
SPM	106	30.5
Others	4	1.2
Years of service		
Less than 5 years	68	19.6
Less than 10 years	97	28
Less than 15 years	91	26.2
Less than 20 years	44	12.7
More 20 years and above	47	13.5
Races		
Malay	230	66.3
Bumiputera	91	26.2
Chinese	20	5.8
Others	6	1.7

Table 4.3 showed the respondents of Sarawak branch of the Civil Defense Department were the most respondents with 13%, followed by RELA with 7.8%, and Jabatan Imigresen Malaysia (7.5%). In total, there are 23 federal government departments involved in this study. The number of respondents from each department is as below.

Table 4.3: Respondents departments

Departments	Frequency	(%)
Arkib Negara Malaysia	8	2.3
Jabatan Audit Negara	7	2.0
Jabatan Bantuan Guaman	9	2.6
Jabatan Belia dan Sukan	21	6.1
Jabatan Imigresen Malaysia	26	7.5
Jabatan Kebudayaan dan Kesenian Negara	14	4.0
Jabatan Kebajikan Masyarakat Sarawak (KEMAS)	22	6.3
Jabatan Peguam Negara	14	4.0
Jabatan Perpaduan Negara dan Integrasi Nasional	10	2.9
Angkatan Pertahanan Awam Malaysia	45	13.0
Jabatan Ukur dan Pemetaan Malaysia (JUPEM)	12	3.5
Kementerian Pelancongan Cawangan Sarawak	11	3.2
MAMPU Sarawak	11	3.2
Pejabat Kementerian Pelancongan Sarawak	12	3.5
Pejabat Setiausaha Persekutuan Sarawak	7	2.0
Suruhanjaya Pilihan Raya Negeri Sarawak	9	2.6
Suruhanjaya Koperasi Malaysia	14	4.0
Suruhanjaya Pencegahan Rasuah Malaysia Cawangan Sarawak	14	4.0
Suruhanjaya Perkhidmatan Awam Sarawak	9	2.6
Institut Latihan Perindustrian Sarawak (Others)	22	6.3
Lembaga Koko Malaysia (Others)	11	3.2
Jabatan Pendaftaran Negara Sarawak (Others)	12	3.5
RELA (Others)	27	7.8
Total	347	100.0

4.9 Descriptive Statistics

Descriptive statistics, mean and standard deviation are displayed in **Table 4.4.** The scale based on five point Likert scale. The low range is between 1-2.33, moderate (2.34-3.66) and high (3.67-5) (Nazari & Pihie, 2012).

Table 4.4: Range score for perception level

Perception level	Range score
Low	1 – 2.33
Moderate	2.34 – 3.66
High	3.67 - 5

Table 4.5 shows that the respondents perception of learning organization in their department is high (Mean=3.98,SD=0.47). Likewise the findings on the perception of change readiness (Mean=4.16, SD=0.62) and knowledge sharing (Mean=3.82, SD=0.99). The values of standard deviation presented in Table 4.5 are below 1, depicting no signs of substantial dispersion present in the data (Meyers, Gamst & Guarino, 2006).

Table 4.5: Descriptive Statistics

Constructs	Mean	Standard deviation	Results
Learning organization	3.9795	0.47497	High
Knowledge sharing	3.8216	0.98906	High
Readiness change	4.1575	0.62489	High

4.10 Correlations Among Variables

The path coefficients of the variables are assessed through SmartPLS4. The correlation coefficients presented here depict a significant correlation among variables as hypothesized.

4.11 Measurement Model Assessment

This study used SmartPLS 4 technique to test the proposed hypothesis. Assessment of the measurement model which is also known as outer model is the first step in testing the theoretical model. The measurement model is defined as "an SEM model that (1) specifies the indicators for each construct and (2) enables an assessment of construct validity" (Hair et al., 2010, p. 544). All the variables in this study, i.e learning organization, readiness to change and knowledge sharing have reflective measurement models. The criterion for evaluating reflective measurement models is non-identical with formative ones. Outer loadings of the model are examined if the model is reflective while on the contrary, the outer weights are examined when the model is formative (Hair et al., 2014). Following the suggestions of Hair et al. (2014) the next section measures the constructs' reliability and validity.

4.12 Evaluation of Reflective Measurement Models

The systematic evaluation of reflective measurement model involves internal consistency, indicators reliability, convergent validity and discriminant validity (Hair et al., 2014). To assess the internal consistency of the constructs, composite reliability is examined and in order to evaluate the convergent validity, average variance extracted (AVE) is examined. And finally, for discriminant validity assessment the Fornell-Larcker criterion (F-L criterion), cross loadings, and Heterotrait-Monotrait (HTMT) ratio are examined. To evaluate the reflective measurement models, each criterion is addressed in following sections.

4.13 Internal Consistency Reliability

Internal consistency reliability is the first measure in evaluating the reflective measurement model (Hair et al., 2014). The traditional approach to measure internal consistency is known as Cronbach's alpha. Reliability estimation through Cronbach's alpha is based on the indicator's inter-correlations of the observed variables. Cronbach's alpha considers the reliability of all the indicators as equal i.e. having similar outer loadings. On the contrary PLS-SEM gives priority to the indicators based on their individual reliability (Hair et al., 2014, p. 101). Hair et al. (2014) have suggested to use Cronbach's alpha as a conventional approach to measure internal consistency. Due to these limitations of Cronbach's alpha, a more appropriate approach is to use composite reliability. Composite reliability takes into consideration all the indicators' outer loadings.

Cronbach's alpha and composite reliability have a same procedure of assessing the reliability as composite reliability also have values between 0 and 1. According to Hair et al. (2014), values of composite reliability between 0.60 and 0.70 are considered as acceptable while doing an exploratory research. The values that come in the bracket of 0.70 and 0.90 are considered as satisfactory (Nunnally & Bernstein, 1994). Finally the values of composite reliability that are below 0.60 show the absence of internal consistency reliability. This study has used both, Cronbach's alpha and composite reliability in order to assess the internal consistency reliability. **Table 4.6** displays the values of both criterions.

Table 4.6: Internal Consistency Reliability

Variables	Composite Reliability	Cronbach's Alpha
Connect organization to its environment	0.927	0.908
Create continuous learning opportunity	0.884	0.842
Create system to capture and share learning	0.929	0.909
Empower people toward collective vision	0.909	0.879
Encourage collaboration and team learning	0.896	0.861
Knowledge sharing	0.965	0.958
Promote inquiry and dialogue	0.920	0.899
Provide strategic leadership for learning	0.945	0.932
Readiness to change	0.955	0.948
Learning organization	0.969	0.967

It is evident from Table 4.6 that all the values of Cronbach's alpha and composite reliability are above the critical level. The lowest value of Cronbach's alpha belongs to create continuous learning opportunities (0.884) while knowledge sharing has the highest Cronbach's alpha value (0.965). Among the values of composite reliability, create continuous learning opportunity (0.842) has the lowest while knowledge sharing (0.958) has the highest value. These values indicate that all the reflective indicators of the constructs have strong internal consistency reliability.

4.14 Internal Consistency and Indicator Reliability

Internal consistency explains the degree to which each item of the underline construct is interrelated to each other. In other words, it shows the inter-correlation of the indicators. Composite reliability (CR) are used to measure internal consistency (Gefen, Straub, & Boudreau, 2000). The acceptable values of CR are values greater than 0.60 are acceptable, values between 0.70 to 0.90 are satisfactory (Ramayah, Cheah, Chuah, Ting, & Memon, 2018). It indicates that the Value of CR of each construct is greater than 0.70 which means that all items under single construct have higher inter-item correlation.

Moreover, according to Urbach and Ahlemann (2010), indicator reliability highlighted the extent to which a set of indictors is consistent to what it intends to measure. The acceptable values to achieve indicator reliability are 0.5, 0.6 and 0.7 (Ramayah et al., 2018). Table 4.7 further shows the result of indicator reliability and most of the factor loadings are greater than 0.7 which means that indicator reliability has been achieved. This study retains the indicators which are above 0.60 without modifying the original structure of measurement scale as their outer loading values are close to 0.60 (Bollen & Lennox, 1991; Hulland, 1999; Hair et al., 2014).

Table 4.7: Measurement model items loading, composite reliability, cronbach alpha and AVE

Construct	Items	Loading	AVE	Composite reliability	Cronbach's alpha
Create continuous learning opportunities	LO1	0.760	0.644	0.884	0.842
	LO2	0.766			
	LO3	0.822			
	LO4	0.613			
	LO5	0.813			
	LO6	0.702			
Promote inquiry and dialogue	LO7	0.732	0.621	0.920	0.913
	LO8	0.754			
	LO9	0.783			
	LO10	0.772			
	LO11	0.787			
	LO12	0.842			
	LO13	0.842			
Encourage collaboration and team learning	LO14	0.792	0.591	0.896	0.861
	LO15	0.656			
	LO16	0.797			
	LO17	0.834			
	LO18	0.706			
	LO19	0.813			
Create system to capture and share learning	LO20	0.806	0.687	0.929	0.909
	LO21	0.830			
	LO22	0.845			
	LO23	0.822			
	LO24	0.860			
	LO25	0.809			
Empower people toward a collective vision	LO26	0.790	0.629	0.909	0.879
	LO27	0.828			
	LO28	0.863			
	LO29	0.843			
	LO30	0.688			
	LO31	0.719			
Connect organization to its environment	LO32	0.823	0.644	0.927	0.908
	LO33	0.840			
	LO34	0.832			
	LO35	0.802			
	LO36	0.772			
	LO37	0.787			
	LO38	0.760			

Table 4.7: continued

Provide Strategic leadership for learning	LO39	0.827	0.640	0.932	0.914
	LO40	0.829			
	LO41	0.838			
	LO42	0.839			
	LO43	0.413			
	LO45	0.836			
	LO46	0.867			
Knowledge sharing	KSF1	0.836	0.775	0.965	0.958
	KSF2	0.880			
	KSF3	0.814			
	KSF4	0.878			
	KSF5	0.907			
	KSF6	0.893			
	KSF7	0.916			
	KSF8	0.913			
Readiness to change	RFC1	0.643	0.620	0.955	0.948
	RFC2	0.747			
	RFC3	-0.271			
	RFC4	-0.190			
	RFC5	0.726			
	RFC6	0.820			
	RFC7	-0.256			
	RFC8	0.815			
	RFC9	0.845			
	RFC10	0.845			
	RFC11	0.803			
	RFC12	0.744			
	RFC13	-0.219			
	RFC14	0.724			
	RFC15	0.820			
	RFC16	0.834			
	RFC17	0.808			
	RFC18	-0.408			

There are six items were removed as its loading value less than 0.5. This item was one item of learning organization (LO43) and five items of readiness to change (RFC13, RFC18, RFC3, RFC4 and RFC 7).

Table 4.8: Items deleted

Construct	Items	Loading
Provide Strategic leadership for learning	LO43	0.413
Readiness to change	RFC3	-0.271
	RFC4	-0.190
	RFC7	-0.256
	RFC13	-0.219
	RFC18	-0.408

4.15 Convergent Validity

Hair et al. (2014, p. 102) have defined convergent validity as "the extent to which a measure correlates positively with alternative measures of the same construct". The use of domain sampling model indicates that items of a construct are considered as different approaches that help in measuring the same construct. That is why different items representing a specific construct should have a high percentage of variance. A common procedure in establishing the convergent validity is to assess the average variance extracted (AVE). Hair et al. (2014) have defined AVE as "the grand mean value of the squared loadings of the indicators associated with the construct (i.e. the sum of the squared loadings divided by the number of indicators)". According to this definition AVE seems similar to the construct's communality which must be at least 50% as explained earlier. Similarly, the values of AVE that are above 0.50 indicate that more than 50% of the indicators' variance is explained by the construct. While the AVE values below 0.50 are an indication of more errors in the indicators than the explained variance (Hair et al., 2014). **Table 4.9** shows the AVE values of the constructs used in this study.

Table 4.9: Average Variance Extracted (AVE)

	AVE
Connect organization to its environment	0.644
Create continuous learning opportunity	0.562
Create system to capture and share learning	0.687
Empower people toward collective vision	0.626
Encourage collaboration and team learning	0.591
Knowledge sharing	0.775
Promote inquiry and dialogue	0.621
Provide strategic leadership for learning	0.711
Readiness to change	0.620
Learning organization	0.502

All the values of AVE displayed in **Table 4.9** are higher than the threshold level of 0.50 with create continuous learning opportunity having the lowest value of AVE (0.562). Knowledge sharing has the highest AVE value of 0.775 followed by provide strategic leadership for learning with value of 0.711, create system to capture and share_learning (0.687), connect organization to its_environment (0.644), empower people toward collective vision (0.626), promote inquiry and dialogue (0.621), readiness to change (0.62), encourage collaboration and team learning (0.591) and learning organization (0.502).

4.16 Discriminant Validity

Discriminant validity is defined as "the extent to which a construct is truly distinct from other constructs by empirical standards" (Hair et al., 2014, p. 104). Thus, the establishment of discriminant validity is an indication of uniqueness of a construct i.e. the occurrence of a construct is not characterized by any other construct present in the model. This study used three measures to determine the discriminant validity i.e. Fornell-Larcker criterion (F-L criterion), cross loadings (Hair et al., 2014) and the Heterotrait-Monotrait

(HTMT) ratio (Henseler et al., 2015). The following section explains all three measures in order to establish discriminant validity.

4.17 Cross Loadings

First method for the assessment of discriminant validity is to examine the indicators' cross loadings. Specifically, the outer loadings of an indicator should be higher on the related variable as compared to its overall loadings on the other variables (i.e. cross loadings) present in the model (Hair et al., 2014). If the cross loadings of a construct's indicators are greater than its outer loadings, the problem of discriminant validity will appear. According to Hair, Ringle, and Sarstedt (2011), to establish the discriminant validity the criterion of cross loadings is rather liberal. Appendix I shows the cross loadings of the constructs' indicators. It is evident from the table that outer loadings of all indicators are greater than their cross loadings on other constructs. In this way, we have established the discriminant validity through the criterion of cross loadings.

4.18 Fornell-Larcker Criterion

The second approach to assess the discriminant validity is the Fornell-Larcker criterion (F-L criterion) which is also considered as more conservative. In this method a comparison of square root values of average variance extracted (AVE) and the correlations of latent variables are made. More specifically, "the square root of each constructs' AVE should be greater than its highest correlation with any other construct" (Hair et al., 2014, p. 105). The argument behind this method is that a construct should have more variance with its own indicators rather than with the indicators of other constructs. **Table 4.10** and appendix D show the values of F-L criterion.

Table 4.10: Fornell-Larcker Criterion for learning organization dimenisions and readiness to change

	Connect organization to its environment	**Create continuous learning opportunities**	**Create system to capture and share learning**	**Empower people toward a collective vision**	**Encourage collaboration and team learning**	**Kowledge sharing**	**Promote inquiry and dialogue**	**Provide strategic leadership for learning**	**Readiness to change**
Connect organization to its environment	**0.803**								
Create continuous learning opportunities	0.57	**0.749**							
Create system to capture and share learning	0.799	0.629	**0.829**						
Empower people toward a collective vision	0.824	0.603	0.861	**0.791**					
Encourage collaboration and team learning	0.746	0.714	0.795	0.77	**0.769**				
Knowledge sharing	0.423	0.263	0.449	0.441	0.431	**0.88**			
Promote inquiry and dialogue	0.666	0.801	0.723	0.69	0.812	0.399	**0.788**		
Provide strategic leadership for learning	0.85	0.579	0.783	0.79	0.74	0.384	0.661	**0.843**	
Readiness to change	0.763	0.473	0.707	0.648	0.658	0.5	0.555	0.747	**0.788**

The shaded areas in Table 4.8 represent the square root values of AVE. knowledge sharing has the highest square root value of AVE (0.88) followed by strategic leadership for learning (0.843), create system to capture share learning (0.829), connect organization to its environment (0.803), empower people toward a collective vison (0.791), Readiness to change (0.788), create continuos learning opportunities (0.749), encourage collaboration and team learning 0.769 has the lowest square root value of AVE. It is evident from the displayed values that all the square root values of AVE are greater than the correlations with other latent variables. Therefore, discriminant validity is established by means of F-L criterion.

It is argued by Henseler et al. (2015) that in contemporary research settings the classical approaches like cross loadings and F-L criterion are not that much reliable for establishing discriminant validity. A new approach was suggested by Henseler et al. (2015) for assessing discriminant validity i.e. heterotrait-monotrait ratio (HTMT ratio). Henseler et al. (2015) has defined heterotrait-monotrait ratio of the correlations as "the average of the heterotrait-heteromethod correlations (i.e., the correlations of indicators across constructs measuring different phenomena), relative to the average of the monotrait-heteromethod correlations (i.e., the correlations of indicators within the same construct)". According to Henseler et al. (2015) the values of HTMT ratio that are below 0.9 between two constructs are considered significant resulting in established discriminant validity. Following the suggestions of Henseler et al. (2015) we have calculated the values of HTMT ratio which are displayed in **Table 4.11 and Appendix D.**

Table 4.11: Heterotrait-Monotrait Ratio (HTMT)

	Connect organization to its environment	**Create continuous learning opportunities**	**Create system to capture and share learning**	**Empower people toward collective vision**	**Encourage collaboration and team learn**	**Knowledge sharing**	**Promote inquiry and dialogue**	**Provide strategic leadership for learning**	**Readiness to change**
Connect organization to its environment									
Create continuous learning opportunities	0.651								
Create system to capture and share learning	0.878	0.713							
Empower people toward a collective vision	0.92	0.705	0.962						
Encourage collaboration and team learning	0.836	0.836	0.895	0.887					
Knowledge sharing	0.452	0.292	0.478	0.481	0.474				
Promote inquiry and dialogue	0.725	0.919	0.789	0.766	0.906	0.423			
Provide strategic leadership for learning	0.923	0.644	0.85	0.872	0.818	0.404	.711		
Readiness to change	0.82	0.52	0.76	0.711	0.722	0.523	.588	0.793	

The HTMT analysis shows that the values range from 0.423 to 0.962. The relationship of promote inquiry and dialogue → knowledge sharing has the lowest HTMT value (0.423) while empower people toward a collective vision → knowledge sharing has the highest value of HTMT ratio (0.962). For learning organization, HTMT ratio is 0.732. The data shown in the HTMT ratio analysis illustrates significant results as all the values are below 0.9 which is considered as the critical level. Hence, it is concluded that among all the reflective constructs, the discriminant validity is established. Since we do not have formative constructs in our model we will now move towards the assessment of the structural model (aka inner model).

4.19 Assessment of formative measurement models

The assessment process for formative constructs is unlike reflective constructs (Chin, 2010; Henseler et al., 2009; Hair et al., 2014). All formative measurement models are expected to signify an independent reason for a fundamental latent variable. Therefore, formative indicators do not have a high correlation among measurement scale items. Formative indicators capture all dimensions of their fundamental latent variable that is otherwise known as content validity (Hair et al., 2014). The study involves five formative constructs; create continuous learning opportunities, promote inquiry and dialogue, encourage collaboration and team learning, create system to capture and share learning, empower people toward a collective vision, connect organization to its environment and provide strategic leadership for learning.

4.20 Assessment of Convergent Validity

Convergent validity is an extent of a formative measurement scale, significantly correlates to the reflective measurement scale of the same constructs (Hair et al., 2014). This analysis is denoted as redundancy analysis (Chin, 1998). The author continues that the correlation value between Yformative → Yreflective should be 0.80 or higher to determine the convergent validity of formative constructs (Chin, 1998). Convergent validity is evaluated by examining the magnitude of path coefficient (correlation) between both formative constructs (create continuous learning opportunities formative → create continuous learning opportunities reflective; promote inquiry and dialogue formative → promote inquiry and dialogue reflective; encourage collaboration and team learning formative → encourage collaboration and team learning reflective; create system to capture and share learning formative → create system to capture and share learning reflective; connect organization to its environment formative → connect organization to its environment reflective ; empower people toward a collective vision formative → empower people toward a collective vision reflective ; provide strategic leadership for learning formative → provide strategic leadership for learning reflective (Chin, 1998 & Hair et al., 2014). Results show that path coefficient values of the seven constructs are higher than the inception of 0.80 that justifies the criteria (Chin, 1998). Thefore, entire formative constructs in the model of in this study fulfilled the convergent validity requirement.

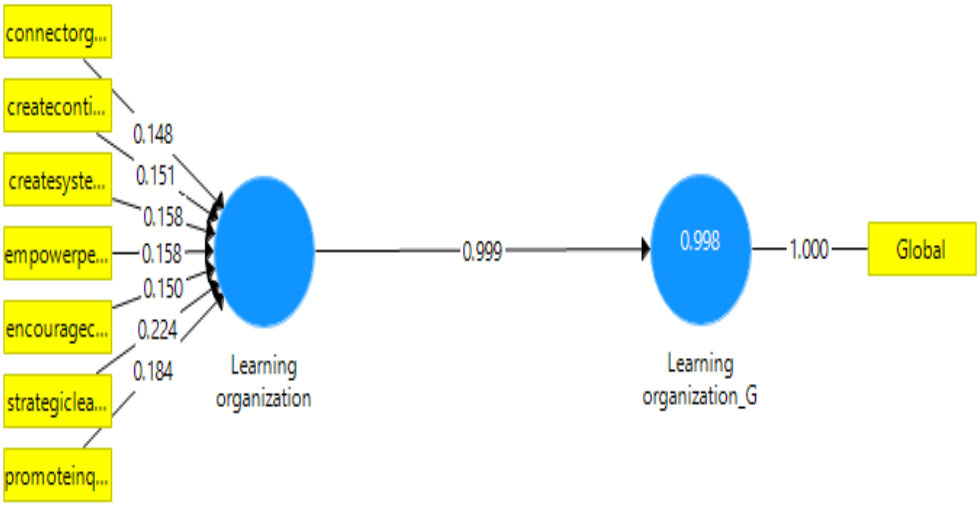


Figure 4.1: Assessment of learning organization on Global Item

4.21 Assessment of Formative Measurement Model for Collinearity Issues

Since the formative indicators are not inter-changeable, high correlations are not expected between indicators in formative measurement models. Indeed, high correlations between two formative indicators are refers to as collinearity (Hair et al., 2014). High level of collinearity between formative indicators are challenging because they have an impact on the estimation of weights and their statistical significance. In order to assess the level of collinearity in PLS-SEM, Variance Inflator Facor (VIF) is looked at. The rule is, if VIF ≥ 5, it indicates a potential issue with a collinearity problem (Hair et al., 2014). Therefore, VIF values should be consistently below the threshold value of 5 (Hair et. al, 2017) and also 3.3 (Diamantopoulus &Siguaw, 2006). The output of the collinearity issues is depicted in **Table 4.12.**

Table 4.12: Summary of variance inflation factor (VIF), outer VIF values

Item	VIF	Item	VIF	Item	VIF	Item	VIF	Item	VIF
KSF1	3.044	LO15	1.465	LO26	2.023	LO37	2.091	LO7	1.869
KSF2	3.946	LO16	2.371	LO27	2.416	LO38	1.931	LO8	2.085
KSF3	2.619	LO17	2.616	LO28	2.778	LO39	2.598	LO9	2.021
KSF4	3.45	LO18	1.755	LO29	2.495	LO4	1.404	RFC1	1.997
KSF5	4.553	LO19	2.151	LO3	2.101	LO40	2.628	RFC10	4.487
KSF6	3.397	LO2	1.832	LO30	1.554	LO41	2.613	RFC11	3.082
LO1	1.684	LO20	2.227	LO31	1.553	LO42	2.624	RFC12	2.136
LO10	2.2	LO21	2.418	LO32	2.357	LO44	2.73	RFC14	2.285
LO11	2.292	LO22	2.539	LO33	2.609	LO45	2.846	RFC15	3.359
LO12	2.711	LO23	2.335	LO34	2.405	LO46	3.289	RFC16	3.603
LO13	2.594	LO24	2.65	LO35	2.171	LO5	1.948	RFC17	3.119
LO14	1.918	LO25	2.15	LO36	1.986	LO6	1.484	RFC2	2.567
RFC5	2.087	KSF7	4.615						
RFC6	3.027	KSF8	4.769						
RFC8	3.017								

Assessment of the Significance and Relevance of the formative indicators to assess the significance and relevance of the formative indicators, the outer weight is an important criterion for evaluation the contribution of formative indicator. Hair et al (2017) point out that outer weight is the result of a multiple regression with the latent variable scores as the dependent and the formative indicator as the independent variables. The t values are assessed for each indicator weight pointing towards the formative construct and thus, can be used to determine each indicator's relative contribution to the construct. The results of the weights and significance for the formative constructs are presented in **Table 4.13.**

Table 4.13: Formative indicators relevancy

Relationship	Beta	Standard deviation (O/STDEV)	P values	Inference
Connect organization to its environment -> readiness to change	0.401	6.048	0.000*	Significance
Create continuous learning opportunity -> readiness to change	0.004	0.061	0.951	Insignificance
Create system to capture and share learning -> readiness to change	0.241	2.814	0.005*	Significance
Empower people toward collective vision -> readiness to change	-0.254	3.208	0.001*	Significance
Encourage collaboration and team learning -> readiness to change	0.116	1.872	0.062	Insignificance
Knowledge sharing -> readiness to change	0.205	4.236	0.000*	Significance
Promote inquiry and dialogue -> readiness to change	-0.101	1.549	0.122	Insignificance
Provide strategic leadership for learning	0.315	5.061	0.000*	Significance
Learning organization -> readiness to change				

*P<0.05

4.22 Reporting and Interpretation of Formative Measurement

To confirm the formative measure, convergent validity is assessed using redundancy analysis recommended by Hair et al. (2017). As presented in Figure 5.5, the analysis produces a path coefficient of 0.093 which is greater than the threshold of 0.07, therefore agreeing with the formative construct convergent validity.

Moreover, multi-collinearity between indicators is assessed. According the results presented in Table 5.22, all the indicators of formative construct satisfy the VIF values and they are consistently below the recommended value of 5 (Hair et al., 2017). Thus, the collinearity does not reach critical levels in any of the formative constructs and is not an

issue for the estimation of the PLS path model. Nonetheless, the significance and relevance of the outer weights of the formative constructs are assessed. The T-statistics values are larger (greater than 1.96) in four formative indicators which signify the significance of the outer loadings at $p < 0.05$. Three indicators (create continuous learning opportunities, create system to capture and share learning and promote inquiry and dialogue) are insignificance. However, these indicators were retained on the basis of content validity (Hair et. al., 2017). Besides, this also because of suggestion by Hair et al. (2017) that suggested by eliminating informative indicators that do not meet threshold level in term of their contribution almost has no effect when reestimating the model. This supported by Ramayah et al. (2018) that contend "formative indicators should never be discarded simply on the basis of statistical outcomes" (p.111).

4.23 Assessment of Structural Model

4.23.1 Collinearity Assessment (inner model)

Collinearity is the high correlation between the constructs of a model (Hair et al., 2014). The variance inflation factor (VIF) is a typical measure for collinearity assessment. According to the authors, the VIF value should be higher than 0.20 and lower than 5, while a more than 5 VIF value shows possible collinearity issue. In this study, the results of VIF for all constructs of structural models (inner model) are shown in Table 4.14. The results show that all the VIF values range between 1.477 (lowest) and 4.920 (highest) which justify the measurement criteria of below.

Table 4.14: Summary of VIF of structural models (inner model)

	Readiness to change
Connect organization to its environment	4.839
Create continuous learning opportunity	2.957
Create system to capture and share learning	4.920
Empower people toward collective vision	4.644
Encourage collaboration and team learning	4.381
Knowledge sharing	1.477
Promote inquiry and dialogue	4.352
Provide strategic leadership for learning	4.937
Learning organization	1.000
Readiness to change	

4.23.2 Path Coefficients

Path coefficients estimate path relationships between latent exogenous and endogenous variables in a structural model. Path coefficient values are comparable to the standardized beta (β) resulting from the regression analysis (Hair et al., 2014). Each path coefficient value signifies a hypothesis which is based on the relationship among two latent variables involved in the anticipated hypothetical model (Chin, 1998). Path coefficient values range between -1 and +1, a value closer to +1 signifies a positive and solid relationship (vice versa for negative sign values).

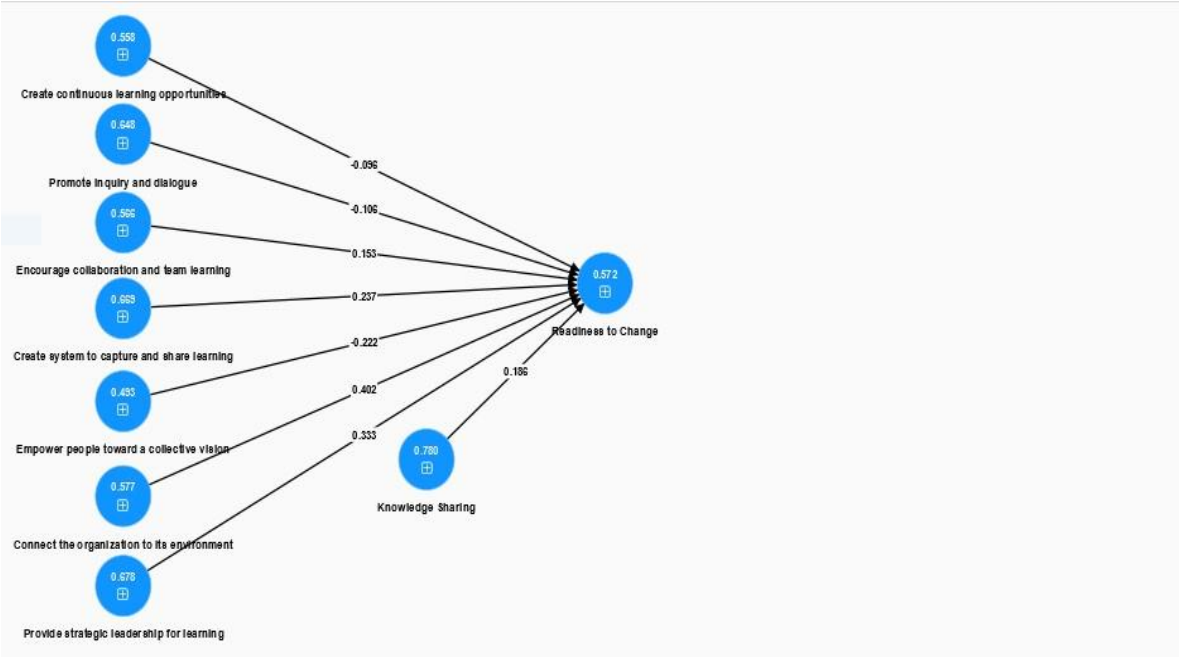


Figure 4.2: Findings of structural model

Note: p <0.05

Table 4.15: Summary of path coefficients

	Value
Connect organization to its environment	0.402
Create continuous learning opportunity	-0.096
Create system to capture and share learning	0.237
Empower people toward collective vision	-0.222
Encourage collaboration and team learning	0.153
Knowledge sharing	0.186
Promote inquiry and dialogue	-0.106
Provide strategic leadership for learning	0.333
Learning organization	0.700

The results of the path coefficients are summarized in Figure 4.2 and Table 4.15. The analysis shows that the path coefficient for the learning organization is 0.700 (Refer to appendix C). However, when looking at the dimensions of the learning organization, the path coefficient values vary between -0.096 and 0.402. The highest path coefficient values are between connect organization to its environment and readiness to

change (β = 0.402). Nonetheless, lowest path coefficient values is between create continuous learning opportunities and readiness to change (β = -0.096). There is a visible variance in scale and strength of relationship among constructs of the structural model. Path coefficient values are more significant after measurement of its significance and relevance (Henseler et al., 2009; Hair et al., 2014).

4.24 Significance and Relevance of Path Coefficients

4.24.1 Significance of Path Coefficients (t-value)

It depends on the t-values if a path coefficient value is considerably unlike from either zero (Hair et al., 2014). The t-statistics values are calculated through bootstrapping routine that based on a re-sampling method in SmartPLS software. In this study, t-values for path coefficients are attained through the re-sampling method of bootstrapping routine. This study uses the rule of t-value > 1.96 and $p < 0.05$ to analyse the significance level of path coefficients. This study has reported confidence intervals along with t-values (Tenenhaus et al., 2005). The t-values and confidence intervals for path coefficients are shown in **Table 4.16.**

Table 4.16: Summary of path coefficients (t-values)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Connect the organization to its environment -> Readiness to Change	0.402	0.399	0.073	5.541	0.000
Create continuous learning opportunities -> Readiness to Change	-0.096	-0.085	0.081	1.190	0.234
Create system to capture and share learning -> Readiness to Change	0.237	0.223	0.083	2.873	0.004
Empower people toward a collective vision -> Readiness to Change	-0.222	-0.206	0.087	2.545	0.011
Encourage collaboration and team learning -> Readiness to Change	0.153	0.153	0.066	2.338	0.019
Knowledge Sharing -> Readiness to Change	0.186	0.185	0.044	4.250	0.000
Promote inquiry and dialogue -> Readiness to Change	-0.106	-0.107	0.073	1.457	0.145
Provide strategic leadership for learning -> readiness to change	0.333	0.309	0.062	5.061	0.000
Learning Organization -> Readiness to change	0.700	0.709	0.047	15.018	0.000

P<0.05,Two-tailed

The results show that t-values for this study range between 0.047 and 0.087. The highest t-values are between learning organization and readiness to change (t-value = 15.018; $p < 0.05$), followed by connect the organization to its environment and Readiness to Change (t-value = 5.541; $p < 0.05$) and Provide strategic leadership for learning and readiness to change (t-value = 5.061; $p < 0.05$). The lowest t-values are between create continuous learning opportunities (t-value = 1.190; $p > 0.05$). Overall, the examination of t-values determines that majority of path coefficient values are significant at $p < 0.05$. The

results propose that conceptual model in this study show a substantial clarifying significance level.

Table 4.17: Formative indicators relevancy

Relationship	Beta	Standard deviation (O/STDEV)	P values	Inference
Connect organization to its environment -> readiness to change	0.402	0.073	0.000	Significance
Create continuous learning opportunity -> readiness to change	-0.096	0.081	0.234	Insignificance
Create system to capture and share learning -> readiness to change	0.237	0.083	0.004	Significance
Empower people toward collective vision -> readiness to change	-0.222	0.087	0.011	Significance
Encourage collaboration and team learning -> readiness to change	0.153	0.066	0.019	Significance
Knowledge sharing -> readiness to change	0.186	0.044	0.000	Significance
Promote inquiry and dialogue -> readiness to change	-0.106	0.073	0.145	Insignificance
Provide strategic leadership for learning	0.333	0.062	0.000	Significance
Learning organization -> readiness to change	0.700	0.047	0.000	Significance

*P<0.05

4.24.2 Coefficients of Determination (R^2 Value)

The coefficient of determination (R^2 value) is a criterion to measure the predictive accuracy of the structural model (Hair et al., 2014). The R^2 values resulting from PLS-SEM analysis interpret in a similar way to those which are attained from multiple regression analysis. R^2 values show the degree of latent exogenous (independent) variables to clarify the variation in their latent endogenous (dependent) variables (Chin, 2010). The outcomes of R^2 values range from 0 to 1 and a higher R^2 value shows a higher level of predictive accuracy. According to Moore, Notz & Flinger (2013), the high R^2 value is largely considered as strong effect size.

Table 4.18: Summary of R^2

	R Square
Readiness to change	0.489

The list of R2 R^2 value for construct is shown in Table 4.18. The outcomes indicate that all R^2 values is 0.489 and significant at $p < 0.05$ that indicates an acceptable fit of the model to the data. These results of R^2 values specify that the proposed conceptual model has acceptable clarifying significance. According to chin (1998), R square of 0.489 is considered as moderate.

4.24.3 Analysis of Effect Size and Predictive Relevance

4.24.3.1 Effect size f^2

Change in R^2 value when a precise exogenous variable is absent from the structural model can be used to evaluate the impact of the absent variable on the endogenous variables (Henseler et al., 2009; Hair et al., 2014). **Table 4.19** shows the summary of effect size (f^2).

Table 4.19: Summary of effect size (f^2)

	Readiness to change	Effect
Connect organization to its environment	0.102	Medium
Create continuous learning opportunity	0.000	Small
Create system to capture and share learning	0.036	Small
Empower people toward collective vision	0.039	Small
Encourage collaboration and team learning	0.011	Small
Knowledge sharing	0.091	Small
Promote inquiry and dialogue	0.008	Small
Provide strategic leadership for learning	0.072	Small
Learning organization	0.002	Small

As per results of effect size f^2 values in **Table 4.19** for a readiness to change are between 0.000 and 0.102. Highest values of effect size f^2 is connect organization to its environment towards readiness to change (connect organization to its environment → readiness to change, 0.102). On the other hand, lowest values of effect size f^2 for the readiness to change stores are 0.000 which reflected create continuous learning opportunities to readiness to change (create continuous learning opportuniti→ readiness to change, 0.000). Therefore, based on the results above, it is obvious that connect organization to its environment is contributing to the biggest effect size f^2 values. It is also reflected that create continuous learning opportunities is lowest in terms of effect size f^2 values towards its endogenous variable. It means that connect organization to its environment has close to medium effect in producing the R^2 for readiness to change. Other learning organization dimensions i.e create continuous learning opportunites (Create continuous learning opportunities → readiness to change, 0.000), Create system to capture and share learning (Create system to capture and share learning → readiness to change, 0.036), Empower people toward collective vision (Empower people toward collective vision → readiness to change, 0.039), Encourage collaboration and team learning (Encourage collaboration and team learning → readiness to change, 0.011), Promote inquiry and dialogue (Promote inquiry and dialogue → readiness to change, 0.008), Provide strategic leadership for learning (Provide strategic leadership for learning → readiness to change, 0.072) have small effect in producing R^2 for readiness to change. The guidelines given Cohen (1988) for assessing f^2 values for the exogenous latent constructs in predicting the endogenous constructs are contained in the Table below:

Table 4.20: Effect size value (f^2)

Value	Effect size
0.02	Small
0.15	Medium
0.35	Large

4.24.3.2 Predictive Relevance (blindfolding for Q2)

An imperative feature of PLS-SEM is its predictive accuracy that measures the reproduction of latent endogenous constructs using a non-parametric method (Henseler et al., 2009; Chin, 2010; Hair et al., 2014). Predictive relevance is assessed through Stone-Geisser's Q2 test (Geisser, 1974; Stone, 1974). The Q2 values are resulting through blindfolding process that is available in PLS software. Blindfolding procedure is only relevant to the endogenous constructs that consist of reflective measurement models (Hair et al., 2014). In SmartPLS blindfolding process, Q2 value with two unlike approaches; (1) cross-validated redundancy and (2) cross-validated commonality. Cross-validated redundancy method forms on the assessments of both structural and measurement models meanwhile cross-validated communality forms on the construct scores of target endogenous variable without linking the structural model (Hair et al., 2014).

Table 4.21: Construct cross-validated redundancy

	SSO	SSE	Q^2 (=1-SSE/SSO)
Connect organization to its environment	2569	2569	
Create continuous learning opportunity	2202	2202	
Create system to capture and share learning	2202	2202	
Empower people toward collective vision	2202	2202	
Encourage collaboration and team learning	2202	2202	
Knowledge sharing	2936	2936	
Promote inquiry and dialogue	2569	2569	
Provide strategic leadership for learning	2569	2569	
Readiness to change	4771	2811.445	0.411

If a Q2 value is bigger than zero, it recommends that latent exogenous constructs in the structural model have predictive relevance for latent endogenous constructs (Chin, 2010; Hair et al., 2014). An omission distance (D) of seven is used to complete a blindfolding procedure (Ringle et al., 2005; Hair et al., 2014). Referring to **Table 4.21**, all Q2 values are bigger than zero.Therefore the model has predictive relevance for the endogenous construct (Ramayah, Chuah, Cheah, Ting and Memon, 2018).

4.24.3.3 Effect Size (q^2)

Likewise, f^2 effect size method is used to measure R^2 values. The comparative impact of predictive relevance is calculated by q^2 effect size. The change in Q2 value when an exact exogenous variable is absent in the structural model can be used to assess the influence on predictive relevance of the absent variable on the endogenous variables. This approach is known to as q^2 effect size. Findings of q^2 effect size are presented in Table 4.22. The q^2 effect size is calculated by using the empirical formula (Henseler et al., 2009; Hair et al., 2014).

$$q^2 = \frac{(Q2included - Q2excluded)}{(1 - Q2included)}$$

Table 4.22: Calculation of Effect Size (q^2)

	Q2 included	**Q2 excluded**	**q2 = (Q2included - Q2excluded) (1 – Q2included)**
Connect organization to its environment → Readiness to change	0.411	0.389	0.25
Create continuous learning opportunity→ Readiness to change	0.411	0.410	0.00
Create system to capture and share learning→ Readiness to change	0.411	0.403	0.27
Empower people toward collective vision→ Readiness to change	0.411	0.403	0.27
Encourage collaboration and team learning → Readiness to change	0.411	0.409	0.287
Promote inquiry and dialogue→ Readiness to change	0.411	0.409	0.287
Provide strategic leadership for learning→ Readiness to change	0.411	0.397	0.26

These findings reveal that encourage collaboration and team learning and promote inquiry and dialogue have a high predictive relevance of 0.287 for readiness to change. The lowest predictive relevance is create continuous learning opportunities (0.00). Based on the complete analysis of measurement models and structural model, both models (i.e. measurement model and structural model) validate significant outcomes and reasonable to proceed to the next segment.

4.24.3.4 Goodness of Fit (GoF) and Absolute Model Fit Indices

PLS does not produce complete Goodness of Fit (GoF) indices and R2 value is measured as the key method to assess the descriptive power of the model (Wasko & Faraj, 2005). Nevertheless, the Goodness of Fit (GoF) index for PLS-SEM is used to measure the model fit (Tenenhaus et al., 2005). The Goodness of Fit (GoF) is assessed by using the

geometric mean of the average communality score (AVE value) and the average R2 values (for endogenous constructs) and is computed using the equation, (GoF = √(AVE × R2)). Though there is no cut off values for Goodness of Fit (GoF) index (Tenenhaus et al., 2005), the following cut off values to evaluate the results of the GoF analysis: GoFsmall = 0.1; GoFmedium = 0.25; GoFlarge = 0.36 (Wetzels et al., 2009). A good model fit demonstrates a parsimonious and credible model (Henseler et al., 2016). GoF index is calculated for the model in this study is shown in **Table 4.23**.

Table 4.23: Goodness of fit (GoF) index

	Saturated Model	**Estimated Model**
SRMR	0.053	0.053

The conceptual model used in this study produced a Goodness of Fit (GoF) index value of 0.053 that specifies a very good (GoFlarge) model fit. The standardized root means square residual (SRMR) value is measured for this study along with traditional Goodness of Fit (GoF) index (Henseler et al., 2016). Values for the SRMR range from zero to 1 with well-fitting models by attaining values less than 0.05 (Byrne, 1998; Diamantopoulos & Siguaw, 2000). An SRMR of 0 indicates perfect fit but SRMR will be lesser when there is a big number of parameters in the model and the models based on bigger sample sizes. However, values as high as 0.08 are considered adequate (Hu & Bentler, 1999). The model involved in this study produced a standardized root mean square residual (SRMR) values of 0.053, indicating that the model has a considerably good fit for saturated model and estimated model (Ramayah, Cheah, Chuah, Ting & Memon, 2018).

4.25 Findings and Discussions

This section will present the data analysis results to show the correlations between the variables studied.

4.25.1 Perceived Level of The Learning Organization, Readiness To Change, and Knowledge Sharing

To answer this research objective, both mean and standard deviation were utilized. Descriptive statistics, mean and standard deviation are displayed in **Table 4.24.** The scale based on five point Likert scale. The low range is between 1-2.33, moderate (2.34-3.66) and high (3.67-5) (Nazari & Pihie, 2012).

Table 4.24: Range score for Readiness for Change

Perception level	Range score
Low	1 – 2.33
Moderate	2.34 – 3.66
High	3.67 - 5

Table 4.25 shows that the respondents perception of learning organization in their department is high (Mean=3.98,SD=0.47). Likewise the findings on the perception of change readiness (Mean=4.16, SD=0.62) and knowledge sharing (Mean=3.82, SD=0.99). The values of standard deviation presented in Table 4.25 are below 1, depicting no signs of substantial dispersion present in the data (Meyers, Gamst & Guarino, 2006).

Table 4.25: Descriptive Statistics

Constructs	Mean	Standard deviation	Results
Learning organization	3.9795	0.47497	High
Knowledge sharing	3.8216	0.98906	High
Readiness change	4.1575	0.62489	High

The findings from the descriptive statistics analysis show that employees agree that their organization practices learning organization, knowledge sharing, and has a readiness to change. The findings coincide with Watkins and Marsick's (1993) and Haque's (2008) perceptions, who noted that meaningful learning should exist at all levels of the organization. It is perceived useful knowledge from learning organization to enhance staff knowledge and prepare for the challenges of globalization that may affect government departments. Useful knowledge here is gained from both informal and formal learning. Huber (1991) contends that an organization is said to learn when any of its units acquire knowledge that it recognizes as potentially valuable for the organization. Helen and Fredrick (2015) support this by stating that organizations have begun to embrace a continuous learning philosophy, resulting in an increase in formal and informal learning.

The findings of this study are in line with the Lewin's stages of change, and Bandura’s triadic model. Each individual are interconnected with each other. With this "relationship", it is assumed that learning is the result of knowledge or information sharing or knowledge among these civil servants. People will not participate in some activities unless they believe the outcomes will be beneficial. This shows that the readiness to change among cloud employees is the backbone of every decision that will be taken. Employees were also encouraged to progress during this “unfreezing” stage by developing

a change-friendly atmosphere (Durmaz, 2007). As in Lewin's 3-stages of change, the readiness to change is important before the change takes place.

Before displaying the activity, the donor assumes a confirmation of favourable returns during the exchange process. Individuals may develop their knowledge sharing behaviour depending on future expectations. This means individuals will not share when they regard actions as just costs but may aim to share when favourable returns are expected. Reciprocity shows that people may share their expertise to receive favourable returns. Individuals share their knowledge only when they see rewards from the action. The interaction of the three human behaviors (personal, social, and environmental) creates a specific outcome and anticipation, leading to a decision (Bandura, 1989). This points to the fact that people weigh various factors when deciding whether or not to engage in specific behaviours. Through this knowledge or information activities, it is believed to be able to open the civil servants' readiness to change. The equilibrium is critical, and change can only occur if the driving forces overpower the retaining force in a complex psychological state (Beckhard, 1977).

Results of this study confirmed findings by previous researchers that government departments in Malaysia are a learning organization (Samad, 2009; Kamaruddin, 2009; Ghaffari et al., 2017). This study's findings confirmed that the level of learning in government departments is high. One reason for this might be due to technology available such as from social media, whereas information is easily obtained. It is supported by McCoshan (2018) that contends modern communication technology such as social media provides adult learning with flexibility, stimulating collaboration, real-world connectivity, and finding and sharing resources. This can be supported by Odor (2019) that

“Organizations need to constantly learn so that they will be able to cope with the future challenges that are brought about by dynamic technological changes.” (P.291). Having knowledge that is easily accessible due to a learning organization can help prepare for the adoption of new technology. The fact that users are media savvy and cross-border information makes this new technology a necessity for communication today. This was supported by Chui, Manika, Bughin, Dobbs, Roxburgh, Sarrazin, Sands, and Westergren (2012), who thinks that recent technological developments have revolutionized how individuals collaborate, communicate, and share knowledge through social media platforms.

In the public sector, the level of perception of learning organizations, readiness to change, and knowledge sharing play an important role in developing the organization's ability to face current challenges, such as globalization and technological change. The findings of the study show that civil servants agree that their organization practices learning organization, knowledge sharing, and has a readiness to change. This aligns with the views of Watkins and Marsick (1993) and Haque (2008), who emphasize that meaningful learning should exist at all levels of the organization. Valuable knowledge from learning organizations helps improve staff knowledge and prepare them for the challenges of globalization that may affect government departments.

Lewin's theory of change and Bandura's triadic model are also applied in this context. The relationship between the level of perception, readiness to change, and knowledge sharing shows that learning and readiness to change are the result of the exchange of knowledge and information among civil servants. People will not participate in an activity unless they believe that the outcome will be beneficial. Readiness to change

is essential before change occurs, and knowledge sharing activities are a way to unlock this sensitivity and readiness.

The results of this study also show that government departments in Malaysia are learning organizations. Technological advances such as social media play an important role in increasing organizational learning by providing easier access to information. This allows civil servants to be ready to accept change, especially in the context of using new technology. Organizational learning helps maintain the organization's ability to adapt to ongoing changes in technology and current conditions.

4.25.2 The Relationship Between Learning Organization and Readiness To Change

In order to answer research objective 2 “To investigate the relationship between learning organization dimensions and readiness to change“, path coefficient was used to test the relationship between learning organization dimensions and readiness to change. Below are the research hypothesis involves:

Table 4.26: The study's research hypothesis

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H1	There is a significant relationship between create continuous learning opportunities -> readiness to change	Create continuous learning opportunities -> Readiness to Change	-0.096	1.190	0.234	Not Significant
H2	There is a significant relationship between promote inquiry and dialogue -> readiness to change	Promote inquiry and dialogue -> Readiness to Change	-0.106	1.457	0.145	Not Significant
H3	There is a significant relationship between encourage collaboration and team learning -> readiness to change	Encourage collaboration and team learning -> Readiness to Change	0.153	2.338	0.019	Significant
H4	There is a significant relationship between create system to capture and share learning -> readiness to change	Create system to capture and share learning -> Readiness to Change	0.237	2.873	0.004	Significant
H5	There is a significant relationship between empower people toward a collective vision -> readiness to change	Empower people toward a collective vision -> Readiness to Change	-0.222	2.545	0.011	Significant
H6	There is a significant relationship between connect the organization to its environment -> readiness to change	Connect the organization to its environment -> Readiness to Change	0.402	5.541	0.000	Significant
H7	There is a significant relationship between provide strategic leadership for learning -> readiness to change	Provide strategic leadership for learning -> Readiness to Change	0.333	0.071	0.000	Significant
H8	Knowledge sharing significantly moderates learning organization and readiness to change relationship.	Knowledge Sharing -> Readiness to Change	-0.095	0.047	2.028	Significant

4.25.2.1 There is a significant relationship between create continuous learning opportunities and readiness to change

The result shows that create continuous learning opportunities and readiness to change was not statistically significant. The findings supported by Mercader-Neuva (2017) that continuous learning organization dimension is not so favorably supported. **Table 4.27** shows the relationship between create continuous learning opportunities and readiness to change (β = -0.096, t-value = 1.190; p<0.005). The path coefficient is supported by the informant 1 and 2.

Table 4.27: The relationship between create continuous learning opportunities and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H1	There is a significant relationship between create continuous learning opportunities and readiness to change	Create continuous learning opportunities →readiness to change	-0.096	1.190	0.234	Not Significant

Continuous learning is essential. It is believed to help organizations to adapt to the current environment and needs as a preparation to adapt to technological change. This can be supported by Kontoghiorghes et al. (2005) and Senge (2006), who believe learning organization helps adapt to current environmental change. Apart from that, learning organization also contends to help in job satisfaction, productivity, revenue as well as experienced heightened. Furthermore, learning is viewed as a continuous process of knowledge and skills acquisition, especially when changes in the environment (Marsick,

2013; Yang et al., 2004). However, today's social media presence has helped in enabling learning anywhere regardless of time and place constraints. Over time, social media has progressed and evolved. Mustafa and Al-Jabri (2016) contend that social media has evolved from a digital hub for social communication to a commercial, educational, and social regulatory entity. This situation has made social media a "bridge" between learning and civil servants. In addition, the existence of many civil servants that consist of various ranks, grades, work experience, and education has provided a group of rich in a variety of knowledge that can be utilized together for learning and mutual benefit. Thus, it can be said that due to its functionalities for knowledge sharing, such as document interchange, virtual conversation, and knowledge creation, social media has become a useful tool for learning and teaching (Hosen et al., 2021). Thus, learning among civil servants can now occur anywhere and anytime and does not require traditional learning platforms such as training, workshops, and courses. Learning sessions among civil servants are no longer require physical infrastructure but can occur in cyberspace. Kerkhof et al. (2011) contend that social networking sites allow anyone to connect and interact digitally. In the same view as Kerkhof et al. (2011), Pezzola (2013) contends that interacting with others on social media is now considered normal social behavior. This required a massive effort from civil servants' attitude perspective to push themselves to tap learning opportunities provided by social media tools. Nowadays, continuous learning opportunities are more located on social media where information or knowledge is unlimited. Therefore, this study's findings prove that creating continuous learning opportunities in government departments is no longer relevant as social media is considered a new "learning space and place". This situation is in line with Bandura’s theory which says that learning is now the result of networks that exist among connected individuals.

There are several reasons why learning in government departments no longer depends entirely on the ability to create continuous learning opportunities. This phenomenon can be seen in the increasing use of social media platforms in the learning process. Some recent research shows that social media has become an important channel in increasing the effectiveness of learning among government employees.

Prashant and Shilpa (2022) stated that social media platforms can be used in the learning process to build peer interaction, enhance peer learning, and provide 24x7 support and assistance. This means that learning is no longer bound to a fixed space and time, giving flexibility to government employees to continue learning regardless of location or time.

Additionally, Dragseth (2020) emphasizes that social media can increase student engagement, build professional and peer networks, and develop social media skills. This proves that learning in the context of government departments not only provides formal knowledge but also enriches interpersonal and professional skills through online interaction.

Susanto, Yie, Mohiddin, Setiawan, Haghi, and Setiana (2021) also stated that social media platforms provide opportunities for formal learning. This creates a way in which government departments can formally communicate information and knowledge through social media, providing structured and targeted learning opportunities.

Kazak, Bondaruk, Zabiiaka, Samsonenko, Ivaniha, and Ignatieva (2021) underline that online platforms and social media create many opportunities for effective

organizations in the educational space. By using social media, government departments can expand their communication capabilities, increase access to learning resources, and optimize educational space.

Makhoere, Jokonya, and Gorejena (2020) support this view by stating that mobile devices and social media platforms provide opportunities for collaboration and self-directed learning. This allows government staff to collaborate more effectively and take initiative in the learning process.

Overall, the use of social media in learning in government departments has opened vast opportunities for continuous learning. With increased peer interaction, student engagement, and flexibility of space and time, government departments are now able to provide a more holistic learning experience that suits the needs of today's workforce. Therefore, it is important to continue to incorporate these elements in the learning strategy in government departments to ensure the effectiveness and relevance of continuous learning.

The relationship between the create of continuous learning opportunities and readiness to change among government departments is undergoing significant dynamic change. Although research shows that the creation of continuous learning opportunities does not have a significant impact on readiness to change, this phenomenon is in line with the evolution of the role of modern communication technologies such as social media in the learning process. The presence of modern communication technology has changed the learning landscape by enabling learning anywhere and anytime without time and place restrictions.

Bandura's triadic model supports the view that learning is now the result of a network that exists among related individuals. Modern communication technology, such as social media, acts as an important medium that connects learning with public servants. The presence of various government employees consisting of various levels, ranks, work experience, and education provides a diverse source of knowledge that can be used together for learning and mutual benefit.

Additionally, Lewin's view of change suggests that continuous learning and readiness to change are closely related. Although the creation of continuous learning opportunities may no longer be relevant in traditional learning contexts, the use of modern communication technologies, such as social media, as new "learning spaces and places" provides unlimited opportunities for learning. Therefore, the ability of civil servants to continue learning no longer depends entirely on the ability to create continuous learning opportunities but rather on their efficiency in using this technology as an effective learning medium.

With increased interaction between colleagues, learner engagement, and flexibility of space and time, government departments can now provide a more holistic learning experience that suits the needs of today's workforce. Therefore, it is important to continue incorporating these elements into the learning strategy in government departments to ensure the effectiveness and relevance of continuous learning.

4.25.2.2 There is a significant relationship between promote inquiry and dialogue and readiness to change

The result pertaining to hypothesis 2 is showing that promote inquiry and dialogue was not statistically significant. The t-value reveals that promote inquiry and dialogue was not significantly at the 5% level (β = -0.103, t-value = 1.457; $p<0.005$)**,** which means promote inquiry and dialogue is negatively related to readiness to change. Therefore, Hypothesis 2 is supported by the statistical result.

Table 4.28: The relationship between promote inquiry and dialogue and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H2	There is a significant relationship between promote inquiry and dialogue and readiness to change	Promote inquiry and dialogue →readiness to change	-0.103	1.457	0.145	Not Significant

Interestingly, this study's findings was that the promote inquiry and dialogue have a insignificant relationship with readiness to change. Thus, findings suggest that the promote inquiry and dialogue and empower people toward a collective vision does not increase readiness to change among civil servants. An explanation for this is probably due to the bureaucratic structure that prevents the dialogue and inquiry from being used for the organization's benefit. For instance, it is common for top management and employees to work together on a top-down basis. As such, it is not a common practice for employees to query the top management directive. Therefore, some pertinent information about the department's vision might be overlooked, resulting in employees' failure to fully

understand and comprehend the vision and resulting in employees' failure to perform their duty. This is supported by Mohamed, Sidek, Izharrudin, Kudus, Hassan, and Noor (2019), who discovered in their study that modern communication tools such as social media can lead to misunderstanding of the meaning of the word conveyed due to people having different perceptions and miscommunication with each other, as well as killing the mind and spirit to work. This situation can also cause subordinates to question the department's vision and cause them to fall short with top management. Besides, it may be due to some employees' perception that discussions of important and confidential information through dialogue or two-way communications could harm (Marsick & Watkins, 2003) their career development, which might also have contributed to the negative relationship. The direct and transparent communication between top management and supporting staff influenced and nurtured the acceptance of inquiry and dialogue culture in the organization. This helps develop employees' mindset with learning organization culture.

The relationship between encouraging investigation and dialogue and readiness to change among government departments shows a complex dynamic. The results of the study show that encouraging inquiry and dialogue does not show a significant relationship with readiness to change. This raises questions about its impact on the readiness to change among civil servants.

Lewin's theory of change outlines that each individual needs to "freeze" or open themselves up to encourage effective dialogue and inquiry sessions. However, a rigid bureaucratic situation may hinder the use of dialogue and investigation for the benefit of the organization. Hierarchical structures that are often top-down oriented may make employees reluctant to question the instructions of upper management. Thus, important

information about the department's vision may be overlooked, causing employees to fail to fully understand the vision and cause failure in performing their duties.

Bandura's triadic theory also supports this view by emphasizing that individual perceptions of frank and transparent communication between top management and support staff influence the development of a culture of dialogue and inquiry in the organization. However, the belief that dialogue and investigation sessions can lead to detrimental career development may contribute to the negative relationship between investigation and dialogue and readiness to change.

The results of this study show that although the readiness to change is important, the use of inquiry and dialogue should be for the good of the organization and not to pursue personal interests. Failure to use inquiry and dialogue properly and without observing proper ethics will result in it moving away from its true purpose and harming the readiness to change among civil servants. Therefore, it is important to promote a work environment that allows open and thoughtful dialogue between management and staff to increase readiness to change and ensure organizational effectiveness in facing current challenges.

4.26.2.3 There is a significant relationship between encourage collaboration and team learning and readiness to change

Based on the result presented in Table 4.29, it indicates that there is a significant relationship between encourage collaboration and team learning and readiness to change at $p<0.05$ level ($\beta = 0.153$, t-value = 2.338; $p<0.005$)**.** Therefore, Hypothesis 3 is supported by the statistical results.

Table 4.29: The relationship between encourage collaboration and team learning and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H3	There is a significant relationship between encourage collaboration and team learning and readiness to change	Encourage collaboration and team learning →readiness to change	0.153	2.338	0.019	Significant

In the rapidly developing digital era, modern communication technologies such as social media have become increasingly important in the world of work, including among government departments. Studies show that encouraging collaboration and team learning can increase civil servants' readiness to use technology. This phenomenon emphasizes the importance of mutual learning and cooperation in achieving organizational goals. Collaboration and team learning open the door to various advantages that cannot be obtained through individual efforts. The advantages of using social media and modern technology in government departments are that they can be used optimally when each individual collaborates and learns. Watkins & Marsick (1993, 1996) emphasize that in every organization, every member needs to share knowledge and learn together to achieve excellence.

According to Lewin's theory, change occurs through three main stages: unfreezing, changing, and refreezing. In this context, encouraging collaboration and team learning plays an important role in the 'unfreezing' stage. Empowering staff to collaborate and share

knowledge helps them see the need to change and adapt to modern technology. The 'changing' stage involves implementing collaboration and team learning as a norm in the organizational culture. This involves forming a platform that facilitates learning and knowledge exchange between staff. This step ensures that each individual can take initiative in learning and practice cooperation in their daily activities. The 'refreezing' stage involves maintaining the changes that have been achieved through collaboration and team learning as a norm in the organizational culture. Management leadership is necessary to provide continuous support and encourage continuous learning to ensure improved performance and efficiency in the long term.

Meanwhile, Bandura's Triadic Model emphasizes three main mechanisms in learning: self-centeredness, sharing, and habituation. In this context, readiness to collaborate and team learning allows individuals to organize themselves to improve their skills and knowledge in using modern communication technologies. Through sharing knowledge and experience, government employees can learn from their colleagues' experiences in adapting and using modern communication technology. This builds a positive attitude towards learning and facilitates an informed decision-making process. With the continuous practice of collaboration and learning, staff can master the use of modern communication technology more effectively and efficiently. This can help in forming a strong foundation for the organization's competence in facing the challenges and opportunities related to technology.

In facing the challenges of rapid change in the digital age, it is important for government departments to encourage collaboration and team learning. By leveraging collaboration and team learning, government departments can maximize the advantages of

modern communication technology and improve organizational efficiency in providing services to the community.

4.26.2.4 There is a significant relationship between create system to capture and share learning and readiness to change

There is a significant relationship between create system to capture and share learning and readiness to change at 5%, as shown in **Table 4.30**. The finding supports Hypothesis 4, indicating create system to capture and share learning have a positive relationship with readiness to change ($\beta = 0.237$; t-value = 2.873; $p<0.005$). Therefore, Hypothesis 4 is supported by the statistical results.

Table 4.30: The relationship between create system to capture and share learning and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H4	There is a significant relationship between create system to capture and share learning and readiness to change	Create system to capture and share learning → readiness to change	0.237	2.873	0.004	Significant

There was a weak and significant relationship between create system to capture and share learning and readiness to change. These findings suggest that creating a system for sharing and capturing learning within an organization can help increase staff's readiness to use social media in their work. It means that each employee can share the stored and shared knowledge and leverage that knowledge for mutual benefit. For example, an employee who may be less skilled on Facebook can leverage their friends' knowledge of Facebook usage. It indeed leverages a staff member's skills who directly assists and

leverages the department itself. It is supported by Watkins and Marsick (1993, 1996) that contend knowledge is assimilated into the organization system and then shared with other employees for the organization's benefit. It is supported by Nonaka (2000) explained, “The learning organization depends on tapping the tacit and often highly subjective insights, intuitions, and hunches of individual employees and marking those insights available for testing and use by the company as a whole” (p. 97). Accordingly, whatever method is used as a system to capture and share knowledge, whether the passive or active method should, can be used to capture knowledge (i.e., personnel knowledge and experiences, trial and error practices, and or learning by doing) as discussed by Raj and Ha-Brookshire (2016). This is supported by Lyons (2019), who contends that high- and low-tech solutions must be created to capture and share learning.

It is important, given that the knowledge available among civil servants is in various forms and savings. Therefore, methods to share and capture knowledge must be able to store and disseminate this diverse knowledge within the department or organization. Create system to capture and share knowledge refers to knowledge that has been embedded in an organization following individual learning and successfully transferred to the system level (Lyons, 2019). Knowledge acquisition is part of organizational learning. The organization must determine how its employees acquire knowledge. The social structures in place within the organization propagate the organization's learning and then determine how new information is distributed (Jackson, 2020). Within communities of practice, information can be shared. When this occurs, new knowledge is shared with other organization members and is more likely to become part of institutional memory (Akgun, Byrne, & Byrne, 2003 & Nemeth, 1997).

In an ever-changing government environment, the ability to adapt and change is becoming increasingly important for government departments. One of the key factors influencing readiness for change is having an effective system to capture and share learning among staff. These findings highlight a significant relationship between the creation of this system and readiness to change among government employees. These findings also align with Bandura's Triadic Model and Lewin's stages of change, which emphasize the need for continuous learning and self-centeredness to change.

In the context of Lewin's stage of change, learning systems and knowledge sharing play an important role in the "unfreezing" process. With a system that facilitates staff to share knowledge and learning, awareness of the need for change can be instilled more effectively. Employees will realize that the knowledge and information they possess is a valuable asset to the organization, and therefore, they will be more open to the needed changes.

At the "changing" stage, the system provides a platform to change the way staff interact with knowledge and learning. They not only receive information, but also share it with colleagues and use that knowledge to improve work practices and processes. This helps in speeding up the change process and ensures that the available knowledge is utilized to the maximum.

When learning systems and knowledge sharing become part of the organizational culture, they freeze into new norms and practices. This is in line with the concept of "refreezing" in Lewin's theory, where the changes achieved become part of the

organization's routine and culture. Employees no longer see change as something scary but as a continuous process of improving organizational efficiency and impact.

In Bandura's Triadic Model, learning systems and knowledge sharing expand our understanding of how individuals organize themselves, learn from others, and master skills through hands-on experience. Through this system, staff organize themselves to actively participate in the learning and change process. They can also see examples of the use of knowledge and information by colleagues that inspire them to participate in the knowledge sharing process.

Thus, readiness to change among government employees can be increased through the creation of effective systems to capture and share learning. By leveraging Lewin's theory of change and Bandura's Triadic Model, government departments can build environments that encourage continuous learning and innovation, make organizations more responsive to current challenges, and ensure ongoing organizational efficiency and impact.

4.26.2.5 There is a significant relationship between empower people toward a collective vision and readiness to change

The result pertaining to hypothesis 5 is showing that there is a significant relationship between empower people toward a collective vision and readiness to change. The t-value reveals that empower people toward a collective vision was significantly at the 1% level (β = -0.222; t =2.545p < 0.05). Therefore, Hypothesis 5 is supported by the statistical result.

Table 4.31: The relationship between empower people toward a collective vision and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H5	There is a significant relationship between empower people toward a collective vision and readiness to change	Empower people toward a collective vision→readiness to change	-0.222	2.545	0.011	Significant

There was a weak significant negative relationship between empower people toward collective vision and readiness to change. This might be because empowering people toward a collective vision could reduce readiness to change among employees to use social media daily when the organization's vision, superiors, and workers are not aligned and misunderstood. Individuals on the team must be empowered to contribute to the organization's collective vision, rewarded for their contributions, and able to see the organization's connections to the broader environment (Lyons, 2019). However, the lack of sharing of this vision can be an obstacle; it needs cooperation between the superiors and the employees to achieve the vision department. Also, the convenience of the facilities available in the organization, such as wifi, internet, computer, and the workers' ability to own a smartphone, can impede the sharing of the department's vision. Organizational leadership is essential because it can energize people by linking them to the organization's objectives and allowing them to see how their efforts contribute to the larger picture. If properly designed and deployed, vision can impact the premises, allowing the organization to achieve long-term success (Shilpa, 2016). The previous study has shown that no strategy

(including organizational vision), no matter how carefully formulated, is effective unless individuals implement it across the organization (Ateş, Tarakci, Porck, van Knippenberg, & Groenen, 2020).

In government departments, the importance of empowering individuals towards a shared vision and readiness for change cannot be denied. Findings from this study are in line with Lewin's theory of change and Bandura's Triadic Model, where department heads and subordinates need to be prepared to "freeze" and share a vision so that both parties can understand and appreciate the organization's vision collectively. However, sharing the department's vision does not always correlate positively with readiness to change. One of the reasons for this is that subordinates may have different views or opinions about the department's vision, which can cause confusion and, ultimately, cause subordinates to oppose and misunderstand the department's vision.

According to Lewin's theory of change, the change process begins with freezing, where awareness of the need for change is implanted in the organization. In this context, empowering individuals towards shared vision plays an important role in freezing. When the vision of the organization is shared openly and is understood together, it helps strengthen commitment and agreement to implement the necessary changes.

However, studies also show that there are challenges in this freezing process. There are differences of views and opinions among subordinates that can affect the collective understanding of the department's vision. This aligns with Bandura's Triadic Model, where people learn through their own experiences, the experiences of others, and self-centered

learning. When there are differences in views, it can lead to confusion and a lack of awareness of the organization's vision, which in turn hinders the readiness to change.

However, despite the challenges in communicating the vision and achieving collective consciousness, steps can be taken to overcome these obstacles. It is important to ensure open and clear communication between department heads and subordinates, as well as facilitate constructive dialogue to understand different perspectives. In addition, continuous alignment of goals and objectives can help reduce disequilibrium and increase readiness to change.

Thus, empowering people towards a shared vision plays an important role in increasing readiness for change in government departments. By understanding Lewin's stages of change and the principles of Bandura's Triadic Model, government departments can take appropriate steps to overcome challenges in communicating the vision and gain the necessary support to implement the necessary changes for the good of the organization.

4.26.2.6 There is a significant relationship between connect the organization to its environment and readiness to change

Based on the result presented in Table 4.32, connect the organization to its environment was significant at $p<0.05$ level ($\beta = 0.402$; $t = 5.541$; $p < 0.05$). The results showed that there is a significant relationship, a weak and positive significant relationship between connect the organization to its environment and readiness to change. Therefore, Hypothesis 6 is supported by the statistical results.

Table 4.32: The relationship between connect the organization to its environment and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H6	There is a significant relationship between connect the organization to its environment and readiness to change	Connect organization to its environment → readiness to change	0.402	5.541	0.000	Significant

The government departments today cannot isolate themselves from the surrounding community. The public is the user of their services and has sophisticated telecommunications tools such as smartphone devices equipped with internet and social media applications such as WhatsApp and Facebook. The public is informed consumers. Lyons (2019) defines connect organization to its environment as including and considering external stakeholders such as customers, suppliers, and people in the community. It recognizes the organization's impact on the population in which it is a member and society in general. As a result, connecting an organization to its environment can be defined as assisting people in seeing the impact of their work on the entire organization; scanning the environment and using the information to adjust work practices; and connecting the organization to its community members (Bhaskar & Mishra, 2017).

This study emphasizes the importance of government departments to communicate with external users. This two-way communication can improve the services provided. For example, users can give feedback to improve the services of government departments according to the current situation and local context. This is supported by Marsick and

Watkins (2003), who argue that new technology is one of the words that can stimulate learning in an organization. Since most users rely entirely on information obtained from social media, they are social media experts. This includes organizations and the communities around them, whether local or global, which should also be given special attention. Government departments need to take the important influence of social media on people's lives seriously, especially when it comes to getting current services and information.

The current situation that makes modern communication technology, including social media, a "digital intermediary" between government departments and the public requires every government department to "connect" with the surrounding environment. This situation aligns with Bandura's Triadic Model, which states that government departments need to keep pace with the current environment. Therefore, government departments need to be prepared to change, as suggested by Bandura's Triadic model, by using the capabilities of social media as an important communication channel between the public and government departments. This is in line with the "Unfreezing" stage in Lewin's 3-stages of change theory.

Through open and continuous communication with external users, government departments can better understand their needs and wants. This will help to reorganize services and policies that are more responsive and relevant to the needs of the community. In addition, a strong relationship with the external environment also allows government departments to take on current changes and challenges more quickly and effectively.

By leveraging Lewin's theory of change and Bandura's Triadic Model, government departments can ensure that they are always ready and able to adapt to current needs and a rapidly changing environment. Initiatives to connect with the external environment are important in strengthening readiness for change in government organizations.

4.26.2.7. There is a significant relationship between provide strategic leadership for learning and readiness to change

As shown in Table 4.33, the finding supports hypothesis 7, indicating that there is a significant relationship between provide strategic leadership for learning and readiness to change ($\beta = 0.333$; $t = 0.071$; $p < 0.01$). Therefore, hypothesis 7 is supported by the statistical results.

Table 4.33: The relationship between provide strategic leadership for learning and readiness to change

	Hypotheses	Model (Relationship)	β	t-value	p-value	Decision
H7	There is a significant relationship between provide strategic leadership for learning and readiness to change	Provide strategic leadership for learning →readiness to change	0.333	0.071	0.000	Significant

There was a weak and significant relationship between provide strategic leadership for learning and readiness to change. This study's findings show that leadership is essential in ensuring that civil servants are ready for change. Government department

leadership is the backbone of their organization. Without leadership's support, guidance, and encouragement, it is difficult to implement learning and change in a government department. This can be supported by Watkins and Marsick, (1993, 1996) contend that leadership roles are exploited as role models, champions, and supporter for learning in the organization. Brown et. al. (2016) contend that the ability to influence leader's decision and alignment with change is arguably the most critical contributor to change success. This dimension recognizes the importance of leaders supporting learning in organizations, as learning is viewed as a business strategy, which must be evident among senior organizational leaders (Lyons, 2019).

Leaders play a crucial role in shaping readiness for change in government organizations. This study shows that leaders who are willing to take steps towards learning and innovation will positively influence the willingness of staff to change. This finding is in line with Lewin's 3-stages of change theory, where leaders who are willing to change play an important role in opening the door to the necessary changes in the organization.

At the "Unfreezing" stage, the leader's willingness to acknowledge the need for change is an important first step. A visionary leader will recognize that change is the only way to improve the organization. In this context, leaders who introduce the use of social media as a learning tool provide a platform to "freeze" the old status quo and encourage continuous learning.

Further, at the "Changing" stage, leaders need to instruct and support staff in adapting new technology, such as social media, as a learning tool in the organization.

Leaders who lead by example and provide guidance to staff on how best to use this technology will help accelerate the change process.

Finally, at the "Refreezing" stage, leaders need to ensure that the changes introduced become part of the new organizational culture. This involves supporting and encouraging the use of social media as a learning tool within the organization, making it a norm accepted by all members of the organization.

In addition, the findings of the study are also in line with Bandura's Triadic Model, where the introduction of social media and modern communication technology as a learning tool allows staff to organize themselves to adapt to this new technology. Through the initiative of leaders in introducing social media as a learning tool, government employees master the skills and knowledge in using it for learning and information exchange.

Thus, the conclusion is that the role of leaders in supporting learning and promoting readiness for change in government organizations is critical. Through the initiative and courage of leaders, government organizations can become more responsive to current challenges and ensure readiness to change to achieve greater goals. This is not only consistent with Lewin's theory of change and Bandura's Triadic Model but is also a basic requirement for every organization that wants to continue to grow and succeed.

4.25.3 Knowledge Sharing Moderates Learning Organization and Readiness to Change Relationship

A moderator specifies the conditions under which a given effect occurs, as well as the conditions under which the direction (nature) or strength of an effect vary (Ramayah, 2013). It has been described as a qualitative or quantitative variable that affects the direction and/or strength of a relation between an independent or predictor variable and a Sdependent or criterion variable (Baron & Kenny 1986). Moderator effect is presented as an interaction between a focal independent variable and a factor (the moderator) that specifies the appropriate conditions for its operation (Ramayah, 2015). A moderator was introduced in the model of this study, knowledge sharing. The moderator goes through all the paths between the independents and the dependents variables. The interactions effects are presented in this section. This study based on two stage approach for moderator testing as formative measures involved in this study.

In this section, the researcher analysed the moderation effect of knowledge sharing between the relationship of learning organization and readiness to change. Moderation analysis was conducted by SmartPLS 4. A simple slop analysis was also conducted to get a more in-depth interpretation of the results. Table 4.35 shows moderation results of knowledge sharing influence on learning organization and readiness to change relationship (β = -0.095; t = 2.028; $p < 0.05$). From the table, it shows that learning organization and readiness to change relationship was significantly moderated by knowledge sharing. Hence, Hypothesis 8 is supported in this study.

Table 4.34: Knowledge sharing moderates learning organization and readiness to change relationship

	Hypothesis	Std. Beta	Std. Error	t-value	p-values	R^2	R^2 Change	Results
H8	Knowledge sharing significantly moderates learning organization and readiness to change relationship	0.095	0.047	2.028	0.043*	0.534	0.530	Significant (Supported)

* t-value > 2.028* (p< 0.05)

Table 4.34 highlights that, due to moderation effect 0.534% of learning organization accounted in the readiness to change. That means, with one interaction term, the R^2 has changed about 5.3% (reduction variance) for learning organization. All of the moderation effects are significant as the t-values >2.028 at $\alpha = 0.05$ level of significance as can be seen in Figure 4.3.

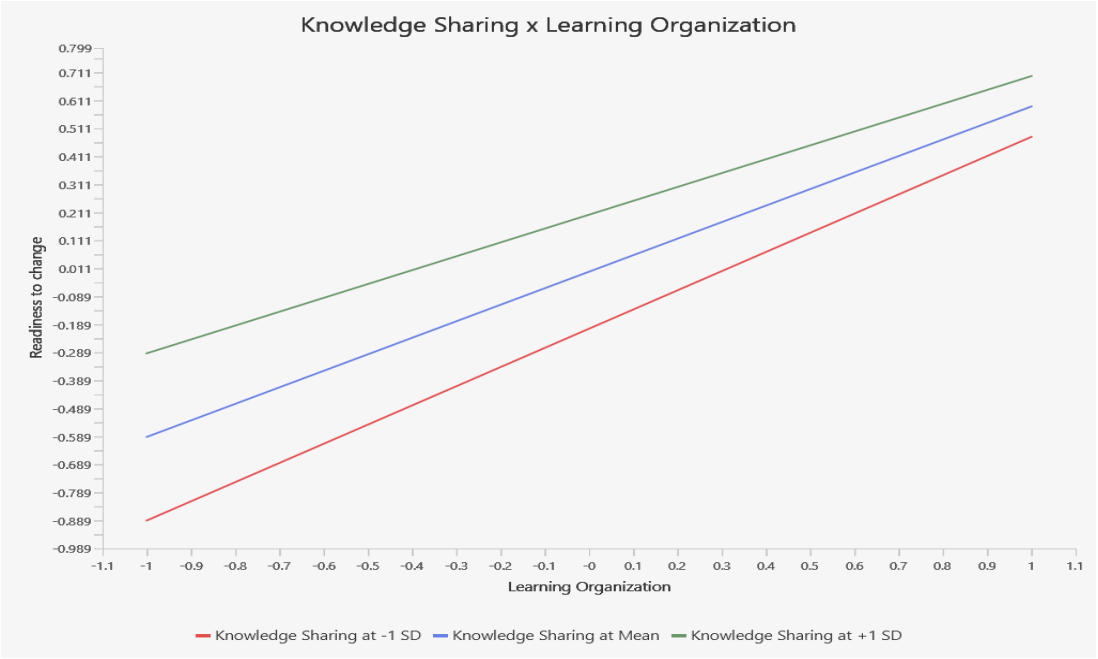


Figure 4.3: Knowledge sharing significantly moderates learning organization and readiness to change relationship

Learning organization are critical for government departments to increase efficiency, innovation, and readiness to change. However, several factors may hinder the role of knowledge sharing and reduce the effectiveness of learning organization practices, thus affecting the readiness to change among government departments.

One of the factors is the lack of open learning culture. When an organization does not support an open learning culture, employees may feel uncomfortable sharing their ideas, experiences, or suggestions. This can inhibit the tendency to share knowledge and negatively impact learning organization practices. The lack of freedom to interact and share may lead to a lack of input and ideas, which are essential to understanding the changes required and can hinder the readiness to change.

The inability to receive feedback is another factor that can hinder learning organization practices. For these practices to be effective, organizations need to foster a culture where employees can provide feedback constructively and receive feedback willingly. Mutual trust and a willingness to receive feedback are essential for effective knowledge sharing. Without these, learning organization practices may not be able to develop fully.

Additionally, the more important personal interest factor can also contribute to the reduction of learning organization practices. When personal interests take priority over the interests of the organization as a whole, employees may be reluctant to share knowledge or experience. This can lead to a lack of collaboration and mutual learning, which can affect the willingness to change due to a lack of commitment to organizational success.

The lack of resources and support for knowledge sharing is another critical factor that can hinder learning organization practices. The success of these practices depends on the organization's support for learning initiatives and knowledge sharing. Without adequate resources or support to facilitate the knowledge sharing process, the practice of learning organization may be hindered. Lack of access to learning resources, appropriate communication platforms, or relevant training can restrict an organization's ability to share knowledge effectively.

Finally, the lack of leader commitment to learning is a crucial factor that can damage learning organization practices. Organizational leaders play a pivotal role in fostering a culture of learning and knowledge sharing. If leaders do not show a strong commitment to learning and do not set a good example by sharing their knowledge and

experience, it can impact the learning organization's practice negatively. Lack of leadership support can also impact the readiness to change due to a lack of influence and encouragement from the top.

All of these factors can impact the readiness to change among government departments. The inability to carry out learning organization practices effectively can hinder the readiness to face change. Without a continuous learning and a strong knowledge sharing, employees may not be prepared to face change effectively. They may lack the knowledge, understanding, and support needed to embrace change.

In addition, this study found that the non-uniform use of communication technology tools or platforms in knowledge sharing among civil servants is likely to contribute to why knowledge sharing significantly moderated the learning organization and readiness to change relationships. This study found that the most preferred communication technology tools types for knowledge sharing is the combinations with 46 %. It was followed by WhatsApp with 27.4%, Facebook (18.2%) and YouTube (4.0%). The social media least preferred for knowledge sharing purpose were Twitter and Telegram with 0.9%.

Table 4.35: Social Media Preferences

Social media types	Frequency	Percent
Facebook	63	18.2
Twitter	3	0.9
Instagram	8	2.3
YouTube	14	4.0
WhatsApp	95	27.4
Telegram	3	0.9
Others (Combinations of one or more modern communication tools preferred for knowledge sharing)	161	46.4

The findings indicate that civil servants utilize a variety of modern communication tools to exchange information. A possible reason for this could be that each tool has unique advantages and benefits, causing a lack of specific focus on any particular social media platform. Consequently, civil servants must learn how to use different social media platforms, which requires a lot of time, energy and effort. This can lead to frustration and may cause civil servants to give up, contributing to the study's findings.

Therefore, there are certain weaknesses that can arise when civil servants rely too much on these various platforms for the purpose of knowledge sharing. Firstly, the lack of uniformity in learning can be a major issue. The practice of a learning organization emphasizes uniformity and cohesion in the learning process. The use of various communication technology platforms without uniformity in the delivery of information can damage efforts to build an effective learning organization. This absence may reduce the organization's effectiveness in maintaining, disseminating, and using new knowledge.

Limitations in organizational culture change also need to be taken into account. Multiple communication technology platforms can hinder efforts to achieve the cultural change required to become a learning organization. The lack of uniformity and the use of too many platforms may make civil servants less inclined to formulate and accept the changes needed to improve organizational effectiveness.

Next, the lack of consistency in learning resources can also be a challenge. Organizational learning practices require consistent and organized learning resources. The use of various platforms without good control and coordination may cause a lack of

consistency in the delivery of information and learning resources. This can reduce the attractiveness and effectiveness of learning resources among civil servants.

In addition, the use of multiple platforms can also contribute to the lack of development of adaptation skills among employees. The practice of a learning organization emphasizes the development of adaptation skills among employees. The use of too many platforms without uniformity and guidance may reduce the ability of civil servants to adapt to technological changes and changes in the organization as a whole. This then may damage the efficiency in facing new challenges.

Finally, the absence of physical interaction for relationship development can be a major drawback. Learning organizations require building strong relationships and collaboration among staff. The use of too many platforms without physical interaction may lead to deficiencies in the building of professional relationships that are essential for organizational learning and change efforts.

The finding of this study was consistent with Lewin’s 3-stages of change and Bandura’s Triadic Model. Lewin's Stages of Change provide valuable insights into the different stages that organizations go through when implementing change. The first stage, known as 'Unfreezing', is a crucial step in recognizing the need for change. However, if social media is used uncontrollably to facilitate knowledge sharing, it may lead to passive learning and make the 'Unfreezing' phase difficult to implement.

The second stage, 'Changing', is where the actual change takes place. Social media can have both positive and negative impacts on this phase. If used smartly and with

specific targets in mind, social media can strengthen organizational learning. However, if not managed properly, social media can lead to negative behavior and inefficiency in learning.

The third stage, 'Refreezing', involves the consolidation of the change as a permanent part of the organizational culture. Social media can help in this phase by providing a continuous platform for learning and knowledge exchange. However, it's important to ensure that the information shared is accurate and legitimate to reinforce positive behavior.

Bandura's Triadic Model emphasizes that learning involves the interaction between environmental factors, behavior, and personal factors. In the context of social media, a digital environment mixed with illegitimate knowledge sources can have a negative influence on staff behavior and thinking. Thus, it's important to manage the quality and validity of information related to the organization.

Social and psychological factors also play a significant role. Uncontrolled use of social media can create an environment where negative norms develop, which can influence staff views and attitudes towards organizational learning and change. This can result in increased workload and pressure on civil servants, which can reduce their readiness to accept change and motivation to engage in organizational learning initiatives. Therefore, uncertainty and discomfort in facing technology and change can hinder efforts to become a dynamic learning organization.

4.26 Chapter Summary

This section has described the research findings and discussions of the study based on analysis of quantitative. Each of the analyses findings and discussions has been presented in this section. The next section will discuss study's implications, recommendations and conclusions.

CHAPTER 5

CONCLUSION, IMPLICATION AND RECOMMENDATIONS

5.1 Chapter Overview

This chapter presents a summary of the processes involved in the research from the formulation of research objectives to the conclusion of the findings. The conclusion of the study will be discussed to highlight important findings derived from quantitative analyses. Implications of the research findings are discussed. Limitations and recommendations for future researchers are offered. This chapter is important because it reports the significant findings of the study, research implications, limitations, and recommendations that could benefit researchers and practitioners alike who are interested in the learning organization and its relationships with readiness to change and knowledge sharing.

5.2 Conclusion of the Study

This study is concerned with the learning organization and its relationships with readiness to change moderated by knowledge sharing in the Malaysian context. This research report comprises five chapters. The first chapter offers a brief overview of the research and sets the stage for the research issue. This chapter serves as a road map for the thesis, setting the tone and guiding the study's course. It explores the study's background, problem statement, research objectives, research questions, conceptual framework, research hypotheses, the study's importance, the study's scope, and definitions of keywords.

The literature review relating to this study's research interest, namely, learning organization and its relationship with readiness to change and knowledge sharing, is discussed in Chapter 2. This chapter examines the relevant literature in relation to the conceptual framework and empirical research for this thesis. The literature review is studied in order to identify any gaps. Every construct's main concepts, hypotheses, methodologies are examined, as well as the current state of the relationships between key concepts in the hypothesized models and the variables (both independent and dependent variables). These ideas will serve as a foundation for analyzing the data gathered in the field.

The methodology used by this study for data collection, analysis, and interpretation in order to meet its goals is described in Chapter 3. This chapter covers research design, research site, population and sampling, instruments, instrument validity and reliability, research ethics, and data collection and analysis procedures.

The analysis of quantitative data, as outlined in Chapter 4 provides meaningful interpretation and draws inferences about the study's objectives. SmartPLS4 and SPSS Version 29 are used to analyse quantitative data. The findings of the data analysis are presented in this chapter.

From the formulation of research objectives to the conclusion of findings, Chapter 5 provides an overview of the processes involved in the research. The implications of the research findings, the study's limitations, and recommendations for future research are discussed. The study's conclusion is discussed to highlight significant findings derived from quantitative data analyses.

5.3 Implications of the Study

The findings of this study have implications for individual employees, teams or groups, and the departments in terms of knowledge, theories, and practices of learning organisations, readiness to change, and knowledge sharing.

5.3.1 Theoretical and Practical Implications

Lewin's 3-stages of change and Bandura's Triadic Model are two different theories often used in various fields. Accordingly, the mixed-use of these two theories provides an opportunity further to enrich the use of these theories in different contexts.

This study looked into the relationship between learning organization and change readiness moderated by knowledge sharing, which could be the first time it has been empirically tested in the Malaysian public sector. The research leads to a better understanding of how Lewin's 3-stages of change, and Bandura's Triadic Model influence learning organization, readiness to change, and knowledge sharing relationships in the local context.

This filled the gap in the body of theoretical knowledge in the relationship between learning organization and readiness to change moderated by knowledge sharing. The knowledge and theory used to describe the relationships between learning organizations and change readiness moderated by knowledge sharing are tested and validated using real data collected in Malaysia's public sector. Thus, the findings of this study contributed to filling the empirical gap in these areas of the learning organization, change management, social media, and knowledge sharing literature.

A quantitative methodology is chosen and surveys in the form of closed-ended questionnaires to collect data from civil servant officers to test hypotheses and address research questions. SmartPLS 4 and SPSS Version 29 are used to analyse the quantitative data. This study's methodological insight will add to Malaysia's body of research knowledge.

The study's findings can help department heads, and policymakers better understand the relationship between learning organizations, change readiness, and knowledge sharing. At the departmental level, this will aid in the creation of better or enhanced strategies and policies. This will also help them make better decisions in their respective departments when planning, developing, and implementing learning, change management, and knowledge sharing policies.

This research makes a significant practical contribution to Malaysian public service management regarding learning organizations, change readiness, and knowledge sharing. The results of this study may be of concern to the management of the departments where the research is being conducted and policymakers and practitioners. This research may be useful to departmental management in evaluating the impact of knowledge sharing on learning organizations and readiness to change through social media, resulting in a positive impact on organizational efficiency.

The results of this study can also help management achieve the desired outcomes at the organizational level more effectively and efficiently. It will also be beneficial to human resource practitioners in assisting them in designing their HR activities and formulating

human resource management strategies in a strategic context at the micro and macro organizational levels in order to increase organizational efficiency.

5.3.2 Implications for Individual Employee

Many factors could be relevant in terms of implications for the individual employee. To begin, the person ensures that he or she takes full advantage of the current benefits of social media for learning and knowledge sharing in the immediate and short term. The benefit of social media is that it enables a person to share a wide range of knowledge, facts, and data with an infinite number of people. Knowledge sharing through social networking has become possible due to the benefit of social media, which enables a person to share various knowledge, facts, or data with an infinite number of friends around the world. This can be considered the most significant social media phenomenon because it opened up endless opportunities for knowledge sharing. The capacity of social media to function as a "knowledge or information" superhighway at all times provides federal department officers with limitless opportunities to use social media for knowledge sharing. This situation contributes to the development of a learning organization among federal government officers, as well as an increase in their readiness to change.

Second, each individual employee should make the learning organization's culture a part of their everyday work culture. Officers of the federal government department can improve their competencies, skills, and capabilities in conducting their duties by continually learning new and helpful things. The practise of learning organization should increase civil servants' preparation for change, which is critical to ensuring that federal government departments remain relevant to the public.

Third, the individual worker, with the help and encouragement of the department, employers, and colleagues, will make the culture of organization learning and knowledge sharing as the culture of the federal government department itself in the short term. It can be accomplished by fostering knowledge sharing, which entails sharing with team members what he has learned during the training, both knowledge, and skills. This could be on the agenda of the management meetings. When learners communicate with one another in a team, they will share what they have learned and ask others to share their experiences and skills. This leads to the development of a knowledge-sharing culture in which each learner takes responsibility for his or her learning. In any federal government agency, this situation aids in the development of a learning organization.

It is important for the individual employee to be mindful that he is responsible for his readiness to change in the short and medium term. Every federal public servant must be ready to face, accept, adjust, and adapt to any change that affects the department. The government department must always be ready for any change that occurs. This situation is enough to help government departments remain relevant at all times.

Knowledge sharing through modern communication tools such as social media has significantly impacted the relationship between learning organizations and readiness to change. Accordingly, federal civil servants should optimize the use and take full advantage of existing social media facilities. The advantages of this technology to provide various beneficial benefits to civil servants by facilitating and inculcating knowledge sharing practices, nurturing learning organization, and increasing readiness to change must be continuously enhanced. Of course, for all these efforts to be successful, support from the

leadership in federal government departments and agencies, such as support and encouragement from department heads and directors, is essential.

Leadership's support in encouraging civil servants to develop a learning organization culture, change readiness, and knowledge sharing using social media across the departments is essential. With the full support of leadership departments and agencies, the culture of learning organizations, knowledge sharing, and change readiness will grow fresh and embedded within departments with the necessary support. In addition, leadership support can trigger motivation and support for subordinate staff to also succeed in knowledge sharing, learning organization and further increase readiness to change among them.

In this sense, civil servants' peers should provide support in the short and long term, which is described as the degree to which co-workers and peers support the implementation of learning, knowledge sharing, and readiness to change in the workplace. The co-workers should provide assistance based on what the individual worker requires and when he requires it. In this context, providing emotional support, training, feedback, and recognition should be practiced to ensure that the individual worker is encouraged to learn, share knowledge, and be prepared for any potential changes.

Finally, the team leader, peers, or boss can provide the requisite assistance for the employee's learning, knowledge sharing, and change readiness. In this study, providing appropriate communication infrastructures such as accessible Wifi facilities, assistance in purchasing smartphones for less able staff, and the proper training to all staff is critical.

The support received from department heads and peers would help employees and the departments as a general.

5.3.3 Implications for Human Resource Practitioners

Accordingly, human resource practitioners must be prepared with an open heart for the influence of social media on their organization and daily tasks. In the context of this study, human resource practitioners need to make social media their new “class” to improve the latest knowledge, information, and info relevant to them, ready to help each other, able to accept diversity of opinions and views among colleagues. At the same time, the leader should be open and positive by not being negative such as hiding information and assuming that informed subordinates will be competitors in the organizational hierarchy. In addition, the head of the department should also provide a knowledge sharing system for staff that is appropriate for their respective departments.

This study also found that knowledge sharing significantly moderates the six dimensions of the learning organization, except to provide continuous learning opportunities. This indicates that knowledge sharing moderates learning organization and knowledge sharing relationship. Therefore, civil servants need to adopt an open-minded culture, not stingy to share knowledge or information, discuss and debate positively and constructively for the common good. Besides, heads of departments (leaders) have to become role models, provide a suiTable system for all for knowledge sharing and knowledge capture, and provide training and encouragement to less skilled staff in the latest communication technology such as social media.

5.3.4 Implications for the Organisation

There are some aspects that can have significant consequences for the organization. To begin with, this study successfully demonstrates that in the long run, supporting, encouraging, and cultivating a culture of learning organizations, knowledge sharing, and change readiness among government departments is crucial. It helps to keep federal government machinery relevant to the public, as people's constant need for fast services, instant access to information, and fast response. This study demonstrates that department heads must recognize the value of learning organizations, knowledge sharing, and change readiness in each federal government department. It is important for federal government agencies to stay relevant to the public in order to ensure that the services they provide are beneficial and satisfactory to the public. Secondly, this study demonstrates that department heads must recognize the value of learning organizations, knowledge sharing, and change readiness in each federal government department. It is important for federal government agencies to stay relevant to the public in order to ensure that the services they provide are beneficial and satisfactory to the public.

Then, this study successfully demonstrates that an organization must provide support for employees in order to foster organizational learning, knowledge sharing, and change readiness. This could be interpreted as a show of support for the workforce. This can be perceived as organisational support, which is linked to a person's overall perception of how supportive an institution or organization is to his or her wellbeing as an employee. The employees also perceive support as the organization’s commitment to him or her. Learning organization, knowledge sharing, and readiness to change in the short and long

term could improve federal department employees' competencies when there is support from the department.

Finally, in the immediate and short-term, it is vital for the organization to hold awareness or engagement sessions for employees, reminding them that they are responsible for their own learning, knowledge sharing, and change readiness. According to the principles of connectivism theory, Lewin's 3-stages of change and Bandura's Triadic Model, employees adapt to current changes such as changes in technology (social media), and individuals can use networks or friends to share knowledge or information. In this case, the head of department's role is to guide or facilitate their learning journey. Similarly, the organization should have the necessary facilities and motivate employees so that they can competently perform their respective roles in the long run. Learning, knowledge sharing, and employee readiness to change are also important factors in organizational success. In this context, it is critical for the organization to have a conducive and comfortable work atmosphere for employees to perform well. At the same time, department management must demonstrate a sense of recognition for their employees. Employees must believe that they are valued, that their roles assist them in achieving their goals, and that there are opportunities for advancement in their careers.

5.4 Limitation of the Study

Although the study provides fresh insights into the relationship between learning organization and readiness to change moderated by knowledge sharing, several limitations of this study should be recognized.

The study is confined to only the public service in Sarawak, Malaysia. It was further limited to federal departments and agencies in Sarawak, Malaysia, which has not involved any involvement from state agencies and departments, local authorities, private sectors, and their employees. Hence, the findings of this study are limited to generalizations of federal departments.

This study only dealt with the direct relationship between learning organization and readiness to change and the moderating role of knowledge sharing. As such, other factors mentioned above (such as cybersecurity and organization climate) are not dealt with in this study and should be considered for future research.

This research is a cross-sectional study. From a positive view of point, cross-sectional studies are less expensive, easier to conduct, and less time-consuming. However, this study only collects data from respondents or informants in a single snapshot or at a single point in time. If a different time frame is chosen, the situation might produce different results. A cross-sectional design cannot capture changes over time to create a changing pattern and the extent of causal interactions between the constructs under investigation. The cross-sectional study can only show that two constructs are related; it cannot show whether one construct causes a change in another. Therefore, other study approaches, such as longitudinal, should be considered.

This study was also limited to others factors such as respondent's job obligations, the requirement to contact them at the department via a contact person, and, gaining ready access to the participants has been complex. Hence, the researcher's ability to motivate participants to participate or increase the response rate from the questionnaire was

restricted. Therefore, future researchers interested in conducting similar research should consider these constraints or limitations.

Another limitation is that the sample was chosen from Malaysian federal departments; other sectors in other countries may produce different results due to cultural differences. As a result, the research's findings are limited to the setting context. Future research could be expanded to other industries or countries to examine how these variables interact in different cultural and organizational settings.

5.5 Recommendations for Future Studies

This study provides future research directions that may help expand further knowledge about learning organization and readiness to change relationships moderated by knowledge sharing. Several recommendations on these are described. Since this study only examined federal departments and only a few participants, further studies could be done on a broader scale to involve more participation from other federal departments in Malaysia. A more extensive population base and a more representative sample would be more beneficial. In order to get better research representation, potential studies may include participants from Peninsular Malaysia, Labuan, and Sabah, for example. Such research may allow for more generalizations, but it will take much longer and cost much more.

Furthermore, since there is a scarcity of research on the learning organization and the readiness to change relationship moderated by knowledge sharing in public service, several more studies should be undertaken to fill in the gaps in the literature. Instead of focusing solely on the direct relationship between learning organizations and readiness to change as moderated by knowledge sharing, future research should consider the

moderating or mediating role of other factors in the relationship, such as artificial intelligence (AI), and how they enhance results.

Future research may be conducted using a longitudinal study, a type of research in which data is collected over time to address a research question (Sekaran, 2006). Compared to cross-sectional studies, longitudinal studies can be more time-consuming and expensive because data is collected from respondents over several periods. Longitudinal studies could aid in capturing changes over time to create a changing pattern as well as the magnitude of causal relationships between the constructs under analysis.

5.6 Chapter Summary

This study is concerned with learning organization and readiness to change relationships moderated by knowledge sharing in Malaysia. This research study and its findings are considered important as they would contribute to closing the theoretical, empirical, and practical gaps existing in the relevant training literature. The objective of the study is to examine the relationship between learning organization and readiness to change moderated by knowledge sharing in federal departments in Sarawak. In order to achieve the objective, nine specific objectives have been set up: (1). To determine the perceived level of learning organization, knowledge sharing and readiness to change among civil servants, (2). To investigate the relationship between create continuous learning opportunities and readiness to change, (3). To investigate the relationship between promote inquiry and dialogue and readiness to change, (4). To investigate the relationship between encourage collaboration and team learning and readiness to change, (5). To investigate the relationship between create system to capture and share learning and

readiness to change, (6). To investigate the relationship between empower people toward a collective vision and readiness to change, (7). To investigate the relationship between connect the organization to its environment and readiness to change, (8). To investigate the relationship between provide strategic leadership for learning and readiness to change, and (9). To investigate the influence of knowledge sharing as a moderator on the relationship between learning organization and readiness to change. The objectives of this study have been achieved by employing a quantitative research methodology, which collected quantitative data from the participants of the study using close-ended. Quantitative data analyses used SmartPLS 4 and SPSS Version 29 to answer the research question and test the hypotheses. The results are statistically significant, showing that six out of eight hypotheses (H3, through to H8) have been accepted. H1 and H2 were rejected due to insignificant results. Most of the current results are consistent with the findings of earlier studies. These findings suggest that learning organization has a significant relationship with readiness to change, and knowledge sharing significantly moderates the relationship.

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APPENDICES

Appendix A:

Sample size for a given population size

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	175	2000	322
55	48	320	181	2200	327
60	52	340	191	2400	331
65	59	360	196	2600	335
70	59	380	205	2800	338
75	63	400	210	3000	341
80	66	420	217	3500	346
85	70	440	226	4000	351
90	73	460	242	4500	354
95	76	480	248	5000	357
100	80	500	260	6000	361
110	86	550	265	7000	364
120	92	600	274	8000	367
130	97	650	278	9000	368
140	103	700	169	10 000	370
150	108	750	186	15 000	375
160	113	800	201	20 000	377
170	118	850	214	30 000	379
180	123	900	234	40 000	380
190	127	950	254	50 000	381
200	132	1000	269	75 000	283
210	136	1100	285	1 000 000	384

Source: Sekaran and Bougie (2009), p.295 – 296.

Appendix B

Study questionnaire

Moderating effect of knowledge sharing via social media between learning organization and readiness to change among federal departments in Sarawak

Kesan perantaraan amalan perkongsian pengetahuan melalui media social di di antara organisasi pembelajaran dan kesediaan untuk berubah di kalangan jabatan persekutuan di Sarawak

Tuan/Puan,

Dengan hormatnya saya memohon kerjasama daripada pihak tuan/puan untuk meluangkan sedikit masa bagi menjawab soalan-soalan di dalam borang soal selidik ini dengan mengikut arahan yang diberi di setiap bahagian. Maklumat yang diperolehi hanya akan digunakan bagi tujuan menyiapkan laporan projek Ijazah Kedoktoran (Ph.D). Nama responden tidak perlu dinyatakan kerana kajian hanya untuk mengetahui persepsi dalam kalangan responden sahaja. Terima kasih kerana meluangkan masa untuk terlibat di dalam kajian ini.

Dear Sir/Madam,

You are invited to participate in this survey which would take a few minutes to complete the questionnaire. The data gathered will only be used for the purpose of completing Doctor of Philosophy (Ph.D) project report. The name of respondents need not be written on the questionnaire as this study only requires the measure of respondents' perception. Thank you for taking your time to complete the questionnaire.

From,
Nicholas Balawing Anak Ibas
(H/P: 013-5795326, e-mail: 15010261@siswa.unimas.my)

SECTION A: RESPONDENT PROFILE (PROFIL RESPONDEN).

Please **circle** the answer number that best reflects your choice:

.	Gender (Jantina)	Male (Lelaki)	1
		Female (Perempuan)	2
.	Age (Umur)	18-30 years old (Tahun)	1
		31-40 years old (Tahun)	2
		41-50 years old (Tahun)	3
		51 – 60 years old (Tahun)	4
.	Marital status (Taraf perkahwinan)	Single (Bujang)	1
		Married (Berkahwin)	2
		Others (Please specify)/Lain-lain (Sila nyatakan):	3
.	The highest level of academic qualification (Tahap kelayakan tertinggi akademik)	Malaysian Education Certificate (Sijil Pelajaran Malaysia)	1
		High Malaysian Education Certificate (Sijil Tinggi Pelajaran Malaysia)	2
		Diploma	3
		Bachelor Degree (Ijazah Sarjana Muda)	4
		Master's Degree (Sarjana)	5
		Ph.D (Doktor Falsafah)	6
		Others (Please specify)/Lain-lain (Sila nyatakan):	7
.	Race (Bangsa)	Malay (Melayu)	1
		Bumiputera (Native) Sila nyatakan(Please specify):	2
		Chinese (Cina)	3
		Others (Please specify)/Lain-lain (Sila nyatakan):	4
.	Job category (Kategori jawatan)	Management and Professional Group (Kumpulan Pengurusan dan Profesional)	1
		Support Group (Kumpulan Sokongan)	2
.	Current organization (Organisasi sekarang)	Arkib Negara Malaysia Cawangan Sarawak	1
		Jabatan Audit Negara Negeri Sarawak	2
		Jabatan Bantuan Guaman	3
		Jabatan Belia Dan Sukan	4
		Jabatan Imigresen Malaysia, Negeri Sarawak	5
		Jabatan Kebudayaan dan Kesenian Negara	6
		Jabatan Kemajuan Masyarakat Persekutuan (KEMAS), Negeri Sarawak	7
		Jabatan Peguam Negara	8
		Jabatan Perikanan Laut Sarawak	9
		Jabatan Perpaduan Nasional dan Integrasi Negara	10
		Jabatan Pertahanan Awam	11
		Jabatan Ukur dan Pemetaan Malaysia Cawangan Sarawak	12
		Kementerian Pertahanan Cawangan Sarawak	13
		MAMPU Cawangan Sarawak, Jabatan Perdana Menteri	14
		Pejabat Kementerian Pelancongan Negeri Sarawak	15
		Pejabat Setiausaha Persekutuan Sarawak	16
		Pejabat Suruhanjaya Pilihan raya Negeri Sarawak	17
		Suruhanjaya Koperasi Malaysia Negeri Sarawak	18
		Suruhanjaya Pencegahan Rasuah Malaysia	19
		Suruhanjaya Perkhidmatan Awam Malaysia Cawangan Sarawak	20

		Others (Please specify)/Lain-lain (Sila nyatakan):	21
.	Current years of service (Tempoh perkhidmatan terkini)	Less than 5 years (Kurang daripada 5 tahun)	1
		Less than 10 years (Kurang daripada 10 tahun)	2
		Less than 15 years (Kurang daripada 15 tahun)	3
		Less than 20 years (Kurang daripada 20 tahun)	4
		More than 20 years (Lebih daripada 20 tahun)	5
.	Social media tools preference for knowledge sharing purpose (Jenis media sosial yang disukai untuk tujuan perkongsian ilmu)	Facebook	1
		Twitter	2
		Instagram	3
		Youtube	4
		Whatsapp	5
		Telegram	6
		Others/lain-lain (Kombinasi media social yang dinyatakan/Combination of listed social media):	7

SECTION B: LEARNING ORGANIZATIONAL PERCEPTION

Instruction : The following statements are for describing the types of learning organizational culture in your office. Please **circle** the answer number that best reflects your choice. Scale 1 being "Strongly disagree (SD)"; scale 2 being "disagree (D)"; scale 3 being "neutral (N)"; scale 4 being "agree (A)" and scale 5 being "Strongly agree (SA)". Use the following rating scale:

No.	Learning organization	SD	D	N	A	SA
1.	Dalam organisasi saya, setiap warga kerja membincangkan kesilapan masing-masing agar mereka dapat belajar daripadanya. *In my organization, people openly discuss mistakes in order to learn from them.*	1	2	3	4	5
2.	Dalam organisasi saya, setiap warga kerja mengenal pasti kemahiran yang diperlukan untuk menjalankan tugas yang akan datang. *In my organization, people identify skills they need for future work tasks.*	1	2	3	4	5
3.	Dalam organisasi saya, setiap warga kerja saling membantu untuk belajar. *In my organization, people help each other to learn.*	1	2	3	4	5
4.	Dalam organisasi saya, setiap warga kerja diberi ganjaran untuk belajar. *In my organization, people are rewarded for learning.*	1	2	3	4	5
5.	Dalam organisasi saya, setiap warga kerja diberi peluang untuk belajar. *In my organization, people are given opportunity to learn.*	1	2	3	4	5
6.	Dalam organisasi saya, setiap warga kerja menganggap masalah dalam tugas sebagai peluang untuk belajar. *In my organization, people perceive problems in*	1	2	3	4	5

	their work as an opportunity to learn.					
7.	Dalam organisasi saya, setiap warga kerja memberikan maklum balas secara jujur terhadap satu sama lain. *In my organization, people give honest feedback to each other.*	1	2	3	4	5
8.	Dalam organisasi saya, setiap warga kerja memberikan maklum balas secara terbuka terhadap satu sama lain. *In my organization, people give open feedback to each other.*	1	2	3	4	5
9.	Dalam organisasi saya, setiap warga kerja mendengar pendapat orang lain terlebih dahulu sebelum memberikan pendapat mereka. *In my organization, people listen before giving their honest views.*	1	2	3	4	5
10.	Dalam organisasi saya, setiap warga kerja digalakkan supaya bertanyakan soalan tanpa mengira pangkat atau jawatan. *In my organization, people are encouraged to ask questions regardless of their position.*	1	2	3	4	5
11.	Dalam organisasi saya, apabila mana-mana warga kerja memberikan pendapat mereka, mereka juga meminta pendapat daripada orang lain. *In my organization, whenever people state their view, they also ask for others opinions.*	1	2	3	4	5
12.	Dalam organisasi saya, setiap warga kerja saling hormat menghormati antara satu sama lain *In my organization, people treat each other with respect.*	1	2	3	4	5
13.	Dalam organisasi saya, setiap warga kerja meluangkan masa untuk memupuk kepercayaan antara satu sama lain. *In my organization, people spend time building trust with each other.*	1	2	3	4	5
14.	Dalam organisasi saya, pasukan/kumpulan kerja diberi kebebasan untuk menyesuaikan matlamat mereka seperti yang diperlukan. *In my organization, teams/groups have the freedom to adapt their goals as needed.*	1	2	3	4	5
15.	Dalam organisasi saya, pasukan/kumpulan kerja menganggap anggota pasukan/kumpulan mereka sebagai setaraf, tanpa mengira pangkat, budaya atau perbezaan lain. *In my organization, teams/groups treat members as equals, regardless of position, culture, or other differences.*	1	2	3	4	5
16.	Dalam organisasi saya, pasukan/kumpulan kerja memberikan tumpuan kepada tugasan kumpulan mereka laksanakan.	1	2	3	4	5

	In my organization, teams/groups focus both on the group's task.					
17.	Dalam organisasi saya, pasukan/kumpulan kerja meneliti semula pandangan mereka setelah mengadakan perbincangan atau mengumpul maklumat. *In my organization, teams/groups revise their opinion as a result of group discussions or information collected.*	1	2	3	4	5
18.	Dalam organisasi saya, pasukan/kumpulan kerja diberikan ganjaran atas pencapaian mereka sebagai sebuah pasukan/kumpulan. *In my organization, teams/groups are rewarded for their achievements as a team/group.*	1	2	3	4	5
19.	Dalam organisasi saya, pasukan/kumpulan kerja yakin bahawa organisasi akan bertindak berdasarkan persetujusn. *In my organization, teams/groups are confident that the organization will act based on their agreements..*	1	2	3	4	5
20.	Organisasi saya kerap menggunakan komunikasi dua hala seperti sistem peti cadangan, papan kenyataan atau perbincangan umum/terbuka. *My organization uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings*.	1	2	3	4	5
21.	Organisasi saya membolehkan warga kerjanya memperoleh maklumat yang diperlukan pada bila-bila masa dan dengan mudah sekali. *My organization enables people to get needed information at any time quickly and easily.*	1	2	3	4	5
22.	Organisasi saya sentiasa mengemaskini maklumat mengenai kemahiran warga kerjanya. *My organization maintains an up-to-date information of employee skills.*	1	2	3	4	5
23.	Organisasi saya mewujudkan sistem untuk mengukur jurang antara prestasi masa kini dengan yang dijangka. *My organization creates systems to measure gaps between current and expected performance.*	1	2	3	4	5
24.	Organisasi saya memastikan bahawa maklumat yang diperoleh sedia digunakan oleh semua warga kerja. *My organization ensure all the information received are usable by all employees.*	1	2	3	4	5
25.	Organisasi saya mengukur masa yang digunakan untuk latihan. *My organization measures the time spent on training.*	1	2	3	4	5
26.	Organisasi saya mengukur sumber yang	1	2	3	4	5

	digunakan untuk latihan. *My organization measures the resources spent on training.*					
27.	Organisasi saya mengiktiraf warga kerja yang mengambil inisiatif *My organization recognizes people for taking initiative.*	1	2	3	4	5
28.	Organisasi saya memberi peluang kepada warga kerja untuk membuat pilihan dalam melaksanakan kerja mereka. *My organization gives people choices in their work assignments*.	1	2	3	4	5
29.	Organisasi saya mempelawa warga kerjanya menyumbangkan tenaga dan buah fikiran ke arah wawasan organisasi. *My organization invites people to contribute their views to the organization's vision.*	1	2	3	4	5
30.	Organisasi saya memberikan kuasa kepada warga kerja menggunakan sumber yang diperlukan oleh mereka untuk melaksanakan kerja mereka. *My organization gives people control over the resources they need to accomplish their work.*	1	2	3	4	5
31.	Organisasi saya memberikan sokongan kepada pekerja yang sanggup mengambil risiko dengan berhati-hati. *My organization support employees who are willing to take calculated risks.*	1	2	3	4	5
32.	Organisasi saya menyelaraskan wawasan organisasi merentasi pelbagai peringkat dan kumpulan kerja. *My organization builds alignment of visions across different levels and work groups.*	1	2	3	4	5
33.	Organisasi saya membantu warga kerja menyeimbangkan urusan kerja dengan urusan keluarga. *My organization helps employees to have balance life between work and family.*	1	2	3	4	5
34.	Organisasi saya menggalakkan warga kerjanya berfikir dari perspektif global. *My organization encourages people to think from a global perspective.*	1	2	3	4	5
35.	Organisasi saya mendorong setiap warga kerja supaya mempertimbangkan pendapat pelanggan dalam membuat keputusan. *My organization encourages everyone to consider the customers' views in decision making process.*	1	2	3	4	5
36.	Organisasi saya mengambil kira kesan sesuatu keputusan terhadap semangat warga kerja *My organization considers the impact of*	1	2	3	4	5

	decisions on employee morale.					
37.	Organisasi saya bekerjasama dengan masyarakat luar untuk memenuhi keperluan bersama. *My organization works together with the outside community to meet mutual needs.*	1	2	3	4	5
38.	Organisasi saya menggalakkan warga kerjanya mendapatkan maklum balas dari seluruh organisasi untuk menyelesaikan masalah. *My organization encourages people to get feedback from across the organization when solving problems.*	1	2	3	4	5
39.	Dalam organisasi saya, ketua biasanya menyokong permohonan warga kerja untuk belajar. *In my organization, leaders generally support employees' application to further their studies.*	1	2	3	4	5
40.	Dalam organisasi saya, ketua biasanya menyokong permohonan warga kerja untuk mendapatkan latihan. *In my organization, leaders generally support employees' application for training.*	1	2	3	4	5
41.	Dalam organisasi saya, ketua berkongsi maklumat terkini dengan warga kerja mengenai pesaing, trend industri dan ekonomi dan hala tuju organisasi. *In my organization, leaders share up to date information with employees about competitors, industry trends, and organizational directions.*	1	2	3	4	5
42.	Dalam organisasi saya, ketua memberikan kuasa kepada warga kerja untuk membantu mencapai wawasan organisasi. *In my organization, leaders empower others to carry out the organization's vision.*	1	2	3	4	5
43.	Dalam organisasi saya, ketua membimbing kakitangan di bawah mereka. *In my organization, leaders facilitate their subordinates.*	1	2	3	4	5
44.	Dalam organisasi saya, ketua memberikan tunjuk ajar kepada kakitangan di bawah mereka. *In my organization, leaders coach those they lead.*	1	2	3	4	5
45.	Dalam organisasi saya, ketua sentiasa mencari peluang untuk belajar. *In my organization, leaders continually look for opportunities to learn.*	1	2	3	4	5
46.	Dalam organisasi saya, ketua memastikan supaya tindakan organisasi selaras dengan nilai organisasi. *In my organization, leaders ensure that the organization's actions are consistent with its values.*	1	2	3	4	5

SECTION C: READINESS TO CHANGE

Instruction: The following statements are for describing the types of learning organizational culture in your office. Please **circle** the answer number that best reflects your choice. Scale 1 being "Strongly disagree (SD)"; scale 2 being "disagree (D)"; scale 3 being "neutral (N)"; scale 4 being "agree (A)" and scale 5 being "Strongly agree (SA)". Use the following rating scale:

No.	Readiness to change	SD	D	N	A	SA
1.	Saya amat berharap ada perubahan kerja dengan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan. *I look forward for changes at work by optimizing the use of social media in department's service delivery system.*	1	2	3	4	5
2.	Perubahan dengan mengoptimumkan penggunaan sosial media dalam system penyampaian jabatan biasanya memberikan manfaat kepada organisasi. *Changes that optimizing the use of social media in department's service delivery usually benefits the organization.*	1	2	3	4	5
3.	Saya biasanya tidak menerima idea baru dengan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan.. *I usually resist new ideas that optimizing the use of social media in department's service delivery.*	1	2	3	4	5
4.	Saya tidak suka perubahan dengan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan. *I don't like changes* that *optimizing the use of social media in department's service delivery.*	1	2	3	4	5
5.	Kebanyakan rakan sekerja saya mendapat manfaat daripada perubahan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan. *Most of my co-workers benefit from changes by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
6.	Saya ingin mencuba idea baru mengoptimumkan penggunaanl media social dalam system penyampaian jabatan. *I am inclined to try new ideas by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
7.	Perubahan dengan mengoptimumkan penggunaan media sosial di dalam system penyampaian kerajaan mengecewakan saya. *Changes that optimizing the use of social media in department's service delivery.frustrates me .*	1	2	3	4	5
8.	Perubahan dengan mengoptimumkan penggunaan media sosial sering membantu saya melakukan kerja dengan lebih baik. *Changes that optimizing the use of social media in department's service delivery often help me to perform*	1	2	3	4	5

	better.					
9.	Saya sering menyokong idea baru dengan mengoptimumkan penggunaan media sosial dalam system penyampaian kerajaan. *I usually support new ideas by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
10.	Perubahan dengan mengoptimumkan penggunaan media sosial dalam sistem penyampaian jabatan nampaknya memberikan dorongan kepada saya. *Changes that optimizing the use of social media in department's service delivery tend to stimulate me.*	1	2	3	4	5
11.	Orang lain berpendapat bahawa saya menyokong perubahan dengan mengoptimumkan pengunaan media sosial dalam system penyampaian kerajaan. *Other people think that I support changes by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
12.	Saya sering mencadangkan pendekatan baru terhadap sesuatu perkara dengan mengoptimumkan penggunaan media sosial di dalam sistem penyampaian kerajaan.. *I often suggest new approaches to things by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
13.	Kebanyakan perubahan seperti mengotimumkan penggunaan media sosial dalam system penyampaian jabatan amat menyulitkan. *Most changes that optimizing the use of social media in department's service delivery are irritating.*	1	2	3	4	5
14.	Perubahan dengan mengoptimumkan penggunaan media sosial di dalam system penyampaian kerajaan biasanya membantu memperbaiki keadaan yang tidak memuaskan di tempat kerja. *Changes that optimizing the use of social media in department's service delivery usually helps improve unsatisfactory situations at work.*	1	2	3	4	5
15.	Saya berhasrat untuk melakukan apa sahaja bagi menyokong perubahan mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan. *I intend to do whatever possible to support changes that optimizing the use of social media in department's service delivery.*	1	2	3	4	5
16.	Saya dapati kebanyakan perubahan seperti mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan memberikan kebaikan. *I find most changes such as by optimizing the use of social media in department's service delivery to be pleasing.*	1	2	3	4	5
17.	Saya selalunya mendapat manfaat daripada perubahan seperti mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan. *I usually benefit from change such as by optimizing the use of social media in department's service delivery.*	1	2	3	4	5
18.	Saya biasanya berasa ragu-ragu untuk mencuba idea baru seperti mengoptimumkan penggunaan media sosial di dalam	1	2	3	4	5

	sistem penyampaian perkhidmatan kerajaan. *I usually hesitate to try new ideas such as optimizing the use of social media in department's service delivery.*					

SECTION D: KNOWLEDGE SHARING

Instruction: The following statements are for describing the types of learning organizational culture in your office. Please **circle** the answer number that best reflects your choice. Scale 1 being "**1**=never", "2=**seldom"**, "3=sometimes", "4=**often"**, "**5**=very **often".** Use the following rating scale:

No.	Knowledge sharing	N	SD	SM	O	VO
1.	Saya berkongsi pengetahuan berfakta (tahu-apa) dari kerja dengan rakan sekerja melalui media sosial. *I shared factual knowledge (know-what) from work with my co-workers via social media.*	1	2	3	4	5
2.	Saya berkongsi pengetahuan perkhidmatan jabatan dengan rakan sekerja melalui media sosial. *I shared department's service delivery knowledge with my co-workers via social media.*	1	2	3	4	5
3.	Saya berkongsi laporan dalaman dan pelbagai laporan rasmi dengan rakan sekerja melalui media sosial. *I shared internal reports and other official documents with my coworkers via social media.*	1	2	3	4	5
4.	Saya berkongsi pengalaman kerja dengan rakan sekerja melalui media sosial. *I shared work experiences with my co-workers via social media.*	1	2	3	4	5
5.	Saya berkongsi kepakaran sistem penyampaian jabatan daripada kerja bersama rakan sekerja melalui media sosial. *I shared know-how of department's service delivery from work with my co-workers via social media.*	1	2	3	4	5
6.	Saya berkongsi kepakaran dari pendidikan dengan rakan sekerja melalui media sosial. *I shared expertise from education with my co-workers via social media.*	1	2	3	4	5
7.	Saya berkongsi kepakaran dari latihan dengan rakan sekerja melalui media sosial. *I shared expertise from training with my co-workers via social media.*	1	2	3	4	5
8.	Saya berkongsi pengetahuan kepakaran (tahu-apa) daripada kerja dengan rakan sekerja melalui media sosial. *I shared (know-why) knowledge from work with my co-workers via social medial.*	1	2	3	4	5

Questionnaire ends / Borang kaji selidik tamat

Thank you / Terima kasih

Appendix C

The research population

No.	Departments	Staff number
1.	Arkib Negara Malaysia	14
2.	Jabatan Audit Negara	20
3.	Jabatan Bantuan Guaman	14
4.	Jabatan Belia dan Sukan	31
5.	Jabatan Imigresen Malaysia	108
6.	Jabatan Kebudayaan dan Kesenian Negara	20
7.	Jabatan Kebajikan Masyarakat Sarawak (KEMAS)	24
8.	Jabatan Peguam Negara	39
9.	Jabatan Perpaduan Negara dan Integrasi Nasional	33
10.	Angkatan Pertahanan Awam Malaysia	50
11.	Jabatan Ukur dan Pemetaan Malaysia (JUPEM)	80
12.	Kementerian Pertahanan Cawangan Sarawak	18
13.	MAMPU Sarawak	17
14.	Pejabat Kementerian Pelancongan Cawangan Sarawak	34
15.	Pejabat Setiausaha Persekutuan Sarawak	45
16.	Suruhanjaya Pilihan Raya Negeri Sarawak	12
17.	Suruhanjaya Koperasi Malaysia	25
18.	Suruhanjaya Pencegahan Rasuah Malaysia Cawangan Sarawak	27
19.	Suruhanjaya Perkhidmatan Awam Sarawak	29
20.	Institut Latihan Perindustrian Sarawak (Others)	69
21.	Lembaga Koko Malaysia (Others)	21
22.	Jabatan Pendaftaran Negara Sarawak (Others)	35
23.	RELA (Others)	46
	Total	811

Source: Related departments and agencies

The number of questionnaires distribute

	N
Total study population	811
Total extra questionnaires for each department	184
Total questionnaires	995
Total questionnaires distributed	1000

Demographic of respondents

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	156	45.0	45.0	45.0
	female	191	55.0	55.0	100.0
	Total	347	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30 years old	63	18.2	18.2	18.2
	31-40 years old	177	51.0	51.0	69.2
	41-50 years old	83	23.9	23.9	93.1
	51-60 years old	24	6.9	6.9	100.0
	Total	347	100.0	100.0	

Marital_Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	88	25.4	25.4	25.4
	Married	251	72.3	72.3	97.7
	Others	8	2.3	2.3	100.0
	Total	347	100.0	100.0	

Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Arkib Negara Malaysia	8	2.3	2.3	2.3
	Jabatan Audit Negara	7	2.0	2.0	4.3
	Jabatan Bantuan Guaman	9	2.6	2.6	6.9
	Jabatan Belia dan Sukan	21	6.1	6.1	13.0
	Jabatan Imigresen Malaysia	26	7.5	7.5	20.5
	Jabatan Kebudayaan dan Kesenian Negara	14	4.0	4.0	24.5
	Jabatan Kebajikan Masyarakat Sarawak (KEMAS)	22	6.3	6.3	30.8
	Jabatan Peguam Negara	14	4.0	4.0	34.9
	Jabatan Perpaduan Negara dan Integrasi Nasional	10	2.9	2.9	37.8
	Angkatan Pertahanan Awam Malaysia	45	13.0	13.0	50.7
	Jabatan Ukur dan Pemetaan Malaysia (JUPEM)	12	3.5	3.5	54.2
	Kementerian Petahanan Cawangan Sarawak	11	3.2	3.2	57.3
	MAMPU	11	3.2	3.2	60.5
	Pejabat Kementerian Pelancongan Sarawak	12	3.5	3.5	64.0
	Pejabat Setiausaha Persekutuan Sarawak	7	2.0	2.0	66.0
	Suruhanjaya Pilihan Raya Negeri Sarawak	9	2.6	2.6	68.6
	Suruhanjaya Koperasi Malaysia	14	4.0	4.0	72.6
	Suruhanjaya Pencegahan Rasuah Malaysia Cawangan Sarawak	14	4.0	4.0	76.7
	Suruhanjaya Perkhidmatan Awam Sarawak	9	2.6	2.6	79.3

	Institut Latihan Perindustrian Sarawak (Others)	22	6.3	6.3	85.6
	Lembaga Koko Malaysia (Others)	11	3.2	3.2	88.8
	Jabatan Pendaftaran Negara Sarawak (Others)	12	3.5	3.5	92.2
	RELA (Others)	27	7.8	7.8	100.0
	Total	347	100.0	100.0	

Academic_Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malaysian Education certificate (SPM)	106	30.5	30.5	30.5
	High Malaysian Education Certificate (STPM)	51	14.7	14.7	45.2
	Diploma	116	33.4	33.4	78.7
	Bachelor Degree	59	17.0	17.0	95.7
	Master's Degree	9	2.6	2.6	98.3
	Ph.D	2	.6	.6	98.8
	Others	4	1.2	1.2	100.0
	Total	347	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	230	66.3	66.3	66.3
	Bumiputera	91	26.2	26.2	92.5
	Chinese	20	5.8	5.8	98.3
	Others	6	1.7	1.7	100.0
	Total	347	100.0	100.0	

Job_Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional& Management Group	43	12.4	12.4	12.4
	Supportive Group	304	87.6	87.6	100.0
	Total	347	100.0	100.0	

Current_Years_of_Service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	68	19.6	19.6	19.6
	Less than 10 years	97	28.0	28.0	47.6
	Less than 15 years	77	22.2	22.2	69.7
	Less than 20 years	44	12.7	12.7	82.4
	More than 20 years	61	17.6	17.6	100.0
	Total	347	100.0	100.0	

Social_Media_Preference

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facebook	63	18.2	18.2	18.2
	Twitter	3	.9	.9	19.0
	Instagram	8	2.3	2.3	21.3
	YouTube	14	4.0	4.0	25.4
	WhatsApp	95	27.4	27.4	52.7
	Telegram	3	.9	.9	53.6
	Others	161	46.4	46.4	100.0
	Total	347	100.0	100.0	

Appendix D

Instruments reliability

Constructs	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
connect_org_to_its_environment	0.908	0.909	0.927	0.644
create_continuous_learn_opportunity	0.842	0.858	0.884	0.562
create_sys_to_capture&share_learning	0.909	0.91	0.929	0.687
empower_people_toward_collective_vision	0.879	0.882	0.909	0.626
encourage_collaboration&team_learn	0.861	0.872	0.896	0.591
kowledge_sharing	0.958	0.96	0.965	0.775
promote_inquiry&dialogue	0.899	0.913	0.92	0.621
provide_strategic_leadership_for_learning	0.932	0.933	0.945	0.711
readiness_for_change	0.948	0.95	0.955	0.62

Appendix E

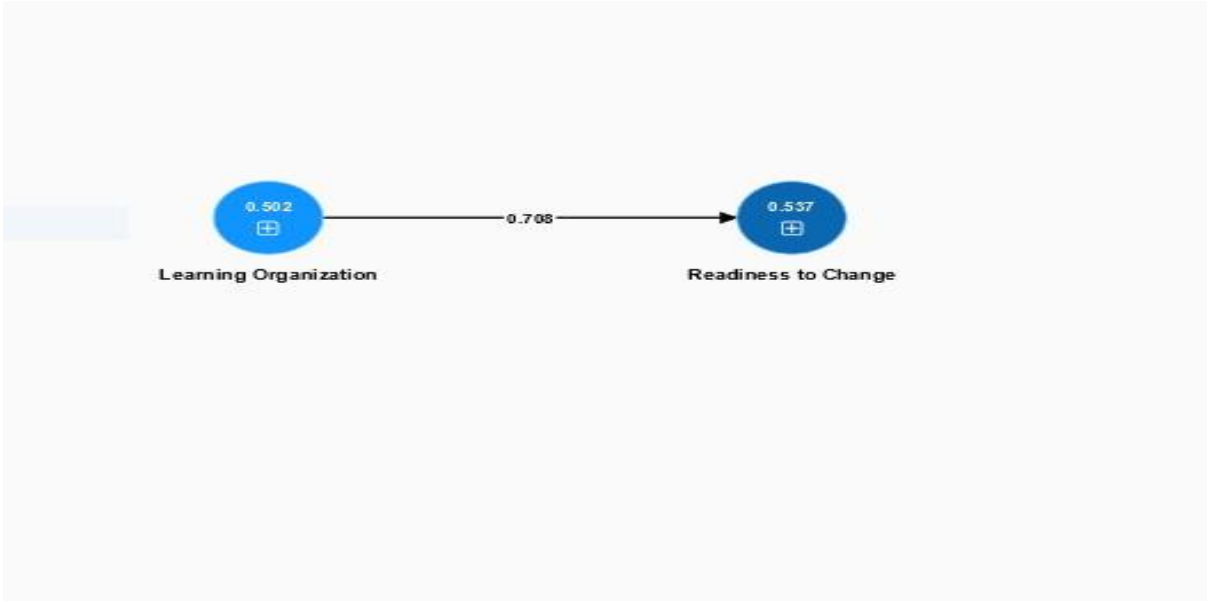
Mean & Standadrd deviation for Learning organization, readiness to change and knowledge sharing

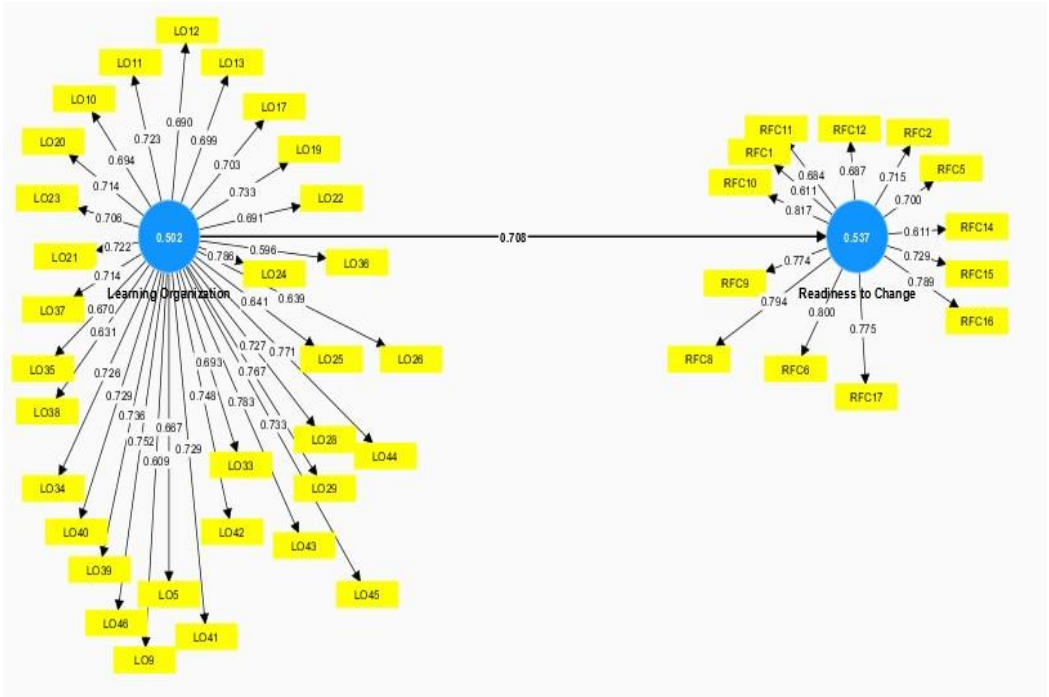
Statistics

	Knowledge sharing	Readiness to change	Learning organization
Mean	3.8216	4.1575	3.9795
Median	4.0000	4.3056	4.0217
Mode	5.00	5.00	3.96
Std. Deviation	.99906	.62489	.47497
Variance	.998	.390	.226
Range	5.00	2.39	3.57
Sum	1360.50	1480.06	1380.89

Appendix F

Path coefficients of learning organization and readiness to change





Appendix G

Heterotrait-Monotrait Ratio (HTMT) and Fornell-Larcker Criterion for learning organization and readiness to change

Heterotrait-Monotrait Ratio (HTMT)

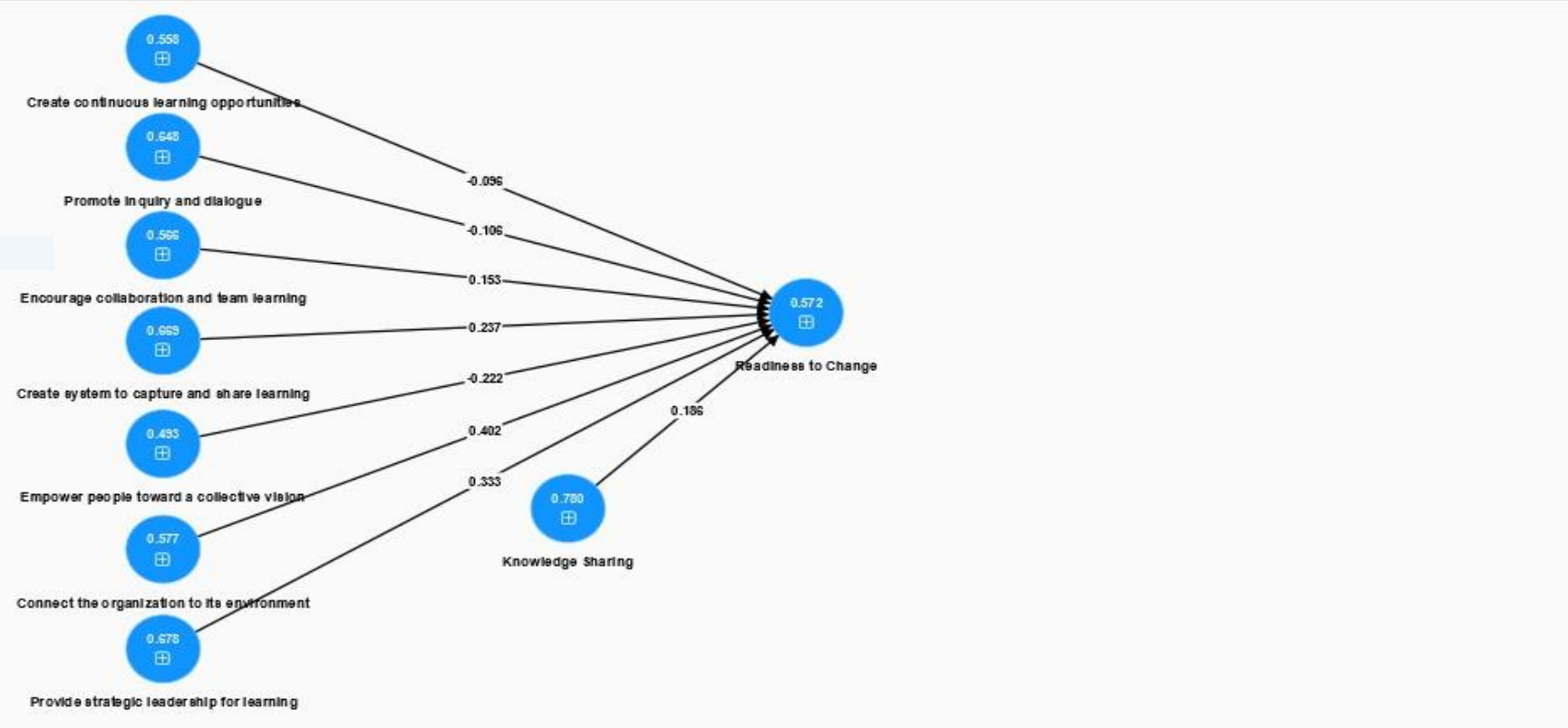
	Learning Organization	**Readiness to Change**
Learning Organization		
Readiness to Change	0.732	

Fornell-Larcker Criterion

	Learning Organization	**Readiness to Change**
Learning Organization	0.709	
Readiness to Change	0.708	0.733

Appendix H

Constructs correlation

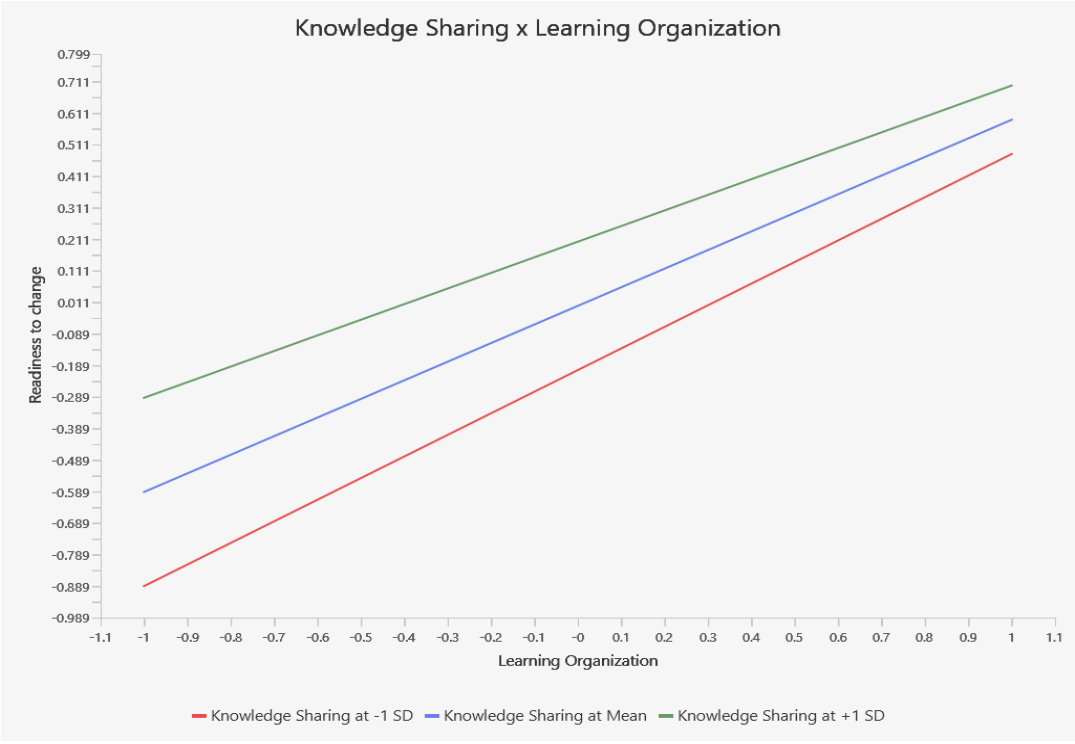


Appendix I

Moderation analysis

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Knowledge Sharing -> Readiness to Change	0.205	0.200	0.049	4.206	0.000
Learning Organization -> Readiness to Change	0.590	0.603	0.052	11.385	0.000
Knowledge Sharing x Learning Organization -> Readiness to Change	-0.096	-0.082	0.047	2.048	0.041

P<0.05

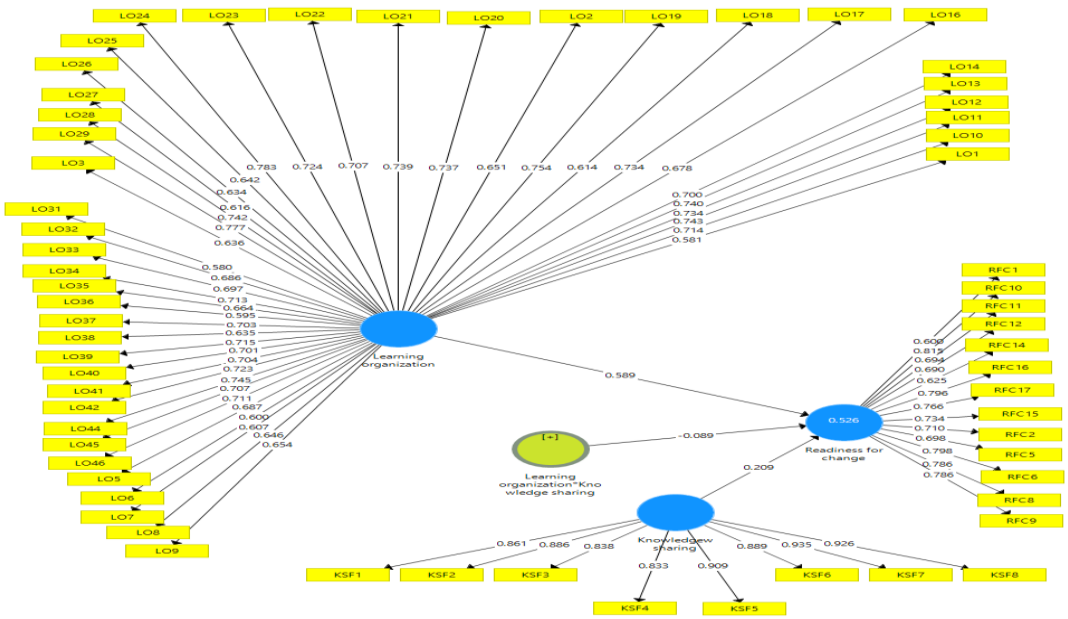


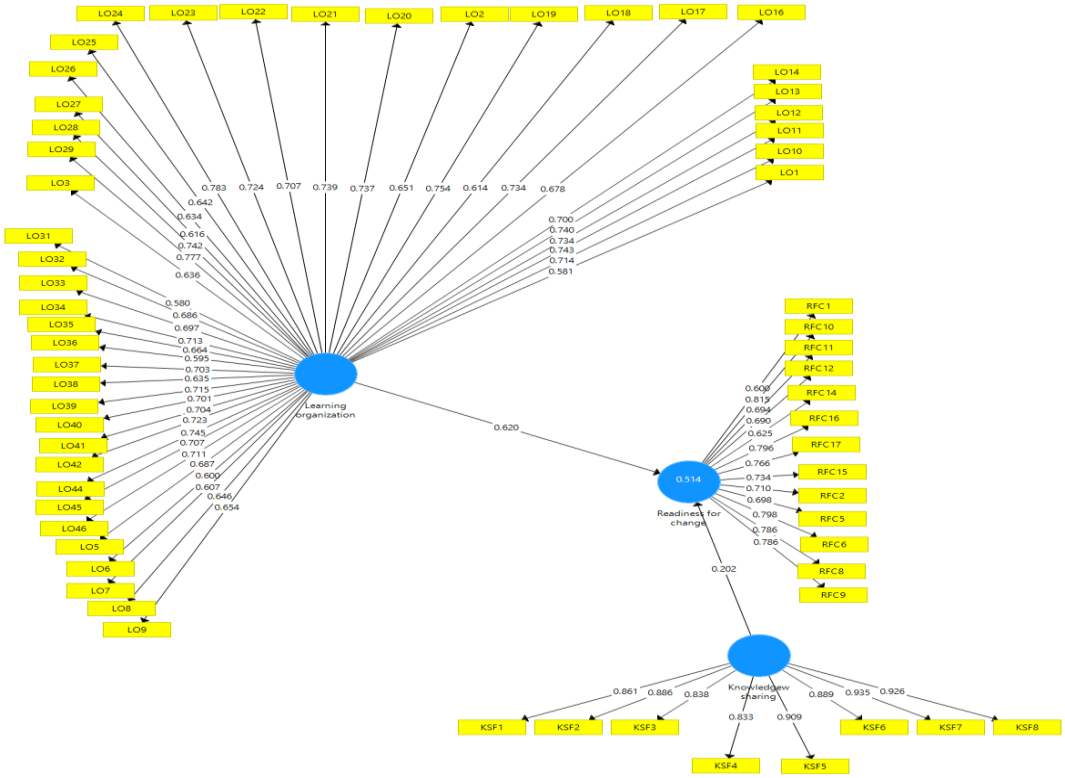
R Square (Before moderator added)

	R Square	R Square Adjusted
Readiness to change	0.514	0.511

R Square (After moderator added)

	R Square	R Square Adjusted
Readiness to change	0.526	0.523





F Square

	readiness_for_change
connect_org_to_its_environment	0.102
create_continuous_learn_opportunity	0.000
encourage_collaboration&team_learn	0.011
empower_people_toward_collective_vision	0.039
create_sys_to_capture&share_learning	0.036
kowledge_sharing	0.091
promote_inquiry&dialogue	0.008
provide_strategic_leadership_for_learning	0.072
readiness_for_change	

Model fit

	Saturated Model	Estimated Model
SRMR	0.053	0.053
d_ULS	6.302	6.302
d_G	3.476	3.476
Chi-Square	6278.552	6278.552
NFI	0.735	0.735

Q2

	Q2 value
create continuous learning opportunities	0.00
promote inquiry and dialogue	0.287
encourage collaboration and team learning	0.287
create system to capture and share learning	0.27
Empower people toward a collective vision	0.27
connect organization to its environment	0.25
proide strategic leadership for learning	0.26

Appendix J

Pilot study

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	8	26.7	26.7	26.7
	Female	22	73.3	73.3	100.0
	Total	30	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30 years old	3	10.0	10.0	10.0
	31-40 years old	18	60.0	60.0	70.0
	41-50 years old	7	23.3	23.3	93.3
	51-60 years old	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	8	26.7	26.7	26.7
	Married	20	66.7	66.7	93.3
	Others	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Academic Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malaysian Education certificate (SPM)	10	33.3	33.3	33.3
	High Malaysian Education Certificate (STPM)	4	13.3	13.3	46.7
	Diploma	11	36.7	36.7	83.3
	Bachelor Degree	4	13.3	13.3	96.7
	Master's Degree	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	21	70.0	70.0	70.0
	Bumiputera	6	20.0	20.0	90.0
	Chinese	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Job Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional& Management Group	6	20.0	20.0	20.0
	Supportive Group	24	80.0	80.0	100.0
	Total	30	100.0	100.0	

Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Jabatan Pendidikan Malaysia	12	40.0	40.0	40.0
	Jabatan Kesihatan Malaysia	8	26.7	26.7	66.7
	Jabatan Penerangan Malaysia	6	20.0	20.0	86.7
	Kastam DiRaja Malaysia	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

Current Years of Service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	3	10.0	10.0	10.0
	Less than 10 years	15	50.0	50.0	60.0
	Less than 15 years	5	16.7	16.7	76.7
	Less than 20 years	4	13.3	13.3	90.0
	More than 20 years	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Social Media Preference

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facebook	10	33.3	33.3	33.3
	Twitter	1	3.3	3.3	36.7
	Instagram	1	3.3	3.3	40.0
	WhatsApp	12	40.0	40.0	80.0
	Others	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Appendix K

Reliability for pilot study

Learning organization

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.799	.808	46

Knowledge sharing

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.898	8

Readiness to change

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.761	.792	18

Appendix L

Learning organization original and adapted items

No.	Original Item	No.	Adapted Item
1.	In my organization, people openly discuss mistakes in order to learn from them.	1.	Dalam organisasi saya, setiap warga kerja membincangkan kesilapan masing-masing agar mereka dapat belajar daripadanya. *In my organization, people openly discuss mistakes in order to learn from them.*
2.	In my organization, people identify skills they need for future work tasks.	2.	Dalam organisasi saya, setiap warga kerja mengenal pasti kemahiran yang diperlukan untuk menjalankan tugas yang akan datang. *In my organization, people identify skills they need for future work tasks.*
3.	In my organization, people help each other learn.	3.	Dalam organisasi saya, setiap warga kerja saling membantu untuk belajar.

			In my organization, people help each other to learn.
4.	In my organization, people are rewarded for learning.	4.	Dalam organisasi saya, setiap warga kerja diberi ganjaran untuk belajar. *In my organization, people are rewarded for learning.*
5.	In my organization, people are given time to support learning.	5.	Dalam organisasi saya, setiap warga kerja diberi peluang untuk belajar. *In my organization, people are given opportunity to learn.*
6.	In my organization, people view problems in their work as an opportunity to learn.	6.	Dalam organisasi saya, setiap warga kerja menganggap masalah dalam tugas sebagai peluang untuk belajar. *In my organization, people perceive problems in their work as an opportunity to learn.*
7.	In my organization, people give open and honest feedback	7.	Dalam organisasi saya, setiap warga kerja memberikan maklum balas secara

	to each other.		jujur terhadap satu sama lain. *In my organization, people give honest feedback to each other.*
8.	In my organization, people give open and honest feedback to each other.	8.	Dalam organisasi saya, setiap warga kerja memberikan maklum balas secara terbuka terhadap satu sama lain. *In my organization, people give open feedback to each other.*
9.	In my organization, people are encouraged to ask "why" regardless of rank.	9.	Dalam organisasi saya, setiap warga kerja mendengar pendapat orang lain terlebih dahulu sebelum memberikan pendapat mereka. *In my organization, people listen before giving their honest views.*
10.	In my organization, whenever people state their view, they also ask what others think.	10.	Dalam organisasi saya, setiap warga kerja digalakkan supaya bertanyakan soalan tanpa mengira pangkat atau jawatan. *In my organization, people are*

			encouraged to ask questions regardless of their position.
11.	In my organization, people treat each other with respect.	11.	Dalam organisasi saya, apabila mana-mana warga kerja memberikan pendapat mereka, mereka juga meminta pendapat daripada orang lain. *In my organization, whenever people state their view, they also ask for others opinions.*
12.	In my organization, people spend time building trust with each other.	12.	Dalam organisasi saya, setiap warga kerja saling hormat menghormati antara satu sama lain *In my organization, people treat each other with respect.*
13.	In my organization, teams/groups have the freedom to adapt their goals as needed.	13.	Dalam organisasi saya, setiap warga kerja meluangkan masa untuk memupuk kepercayaan antara satu sama lain. *In my organization, people spend time building trust with each other.*

14.	In my organization, teams/groups treat members as equals, regardless of rank, culture, or other differences.	14.	Dalam organisasi saya, pasukan/kumpulan kerja diberi kebebasan untuk menyesuaikan matlamat mereka seperti yang diperlukan. *In my organization, teams/groups have the freedom to adapt their goals as needed.*
15.	In my organization, teams/groups focus both on the group's task and on how well the group is working.	15.	Dalam organisasi saya, pasukan/kumpulan kerja menganggap anggota pasukan/kumpulan mereka sebagai setaraf, tanpa mengira pangkat, budaya atau perbezaan lain. *In my organization, teams/groups treat members as equals, regardless of position, culture, or other differences.*
16.	In my organization, teams/groups revise their thinking as a result of group discussions or information	16.	Dalam organisasi saya, pasukan/kumpulan kerja memberikan tumpuan kepada tugasan kumpulan

	collected.		mereka laksanakan. *In my organization, teams/groups focus both on the group's task.*
17.	In my organization, teams/groups are rewarded for their achievements as a team/group.	17.	Dalam organisasi saya, pasukan/kumpulan kerja meneliti semula pandangan mereka setelah mengadakan perbincangan atau mengumpul maklumat. *In my organization, teams/groups revise their opinion as a result of group discussions or information collected.*
18.	In my organization, teams/groups are confident that the organization will act on their recommendations.	18.	Dalam organisasi saya, pasukan/kumpulan kerja diberikan ganjaran atas pencapaian mereka sebagai sebuah pasukan/kumpulan. *In my organization, teams/groups are rewarded for their achievements as a team/group.*
19.	My organization uses two-way	19.	Dalam organisasi saya,

	communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings.		pasukan/kumpulan kerja yakin bahawa organisasi akan bertindak berdasarkan persetujusn. *In my organization, teams/groups are confident that the organization will act based on their agreements..*
20.	My organization enables people to get needed information at any time quickly and easily.	20.	Organisasi saya kerap menggunakan komunikasi dua hala seperti sistem peti cadangan, papan kenyataan atau perbincangan umum/terbuka. *My organization uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings*.
21.	My organization maintains an up-to-date data base of employee skills.	21.	Organisasi saya membolehkan warga kerjanya memperoleh maklumat yang diperlukan pada bila-bila masa dan dengan mudah sekali. *My organization enables people to get*

			needed information at any time quickly and easily.
22.	My organization creates systems to measure gaps between current and expected performance.	22.	Organisasi saya sentiasa mengemaskini maklumat mengenai kemahiran warga kerjanya. *My organization maintains an up-to-date information of employee skills.*
23.	My organization makes its lessons learned available to all employees.	23.	Organisasi saya mewujudkan sistem untuk mengukur jurang antara prestasi masa kini dengan yang dijangka. *My organization creates systems to measure gaps between current and expected performance.*
24.	My organization measures the results of the time and resources spent on training.	24.	Organisasi saya memastikan bahawa maklumat yang diperoleh sedia digunakan oleh semua warga kerja. *My organization ensure all the information received are usable by all employees.*

25.	My organization recognizes people for taking initiative	25.	Organisasi saya mengukur masa yang digunakan untuk latihan. *My organization measures the time spent on training.*
26.	My organization gives people choices in their work assignments.	26.	Organisasi saya mengukur sumber yang digunakan untuk latihan. *My organization measures the resources spent on training.*
27.	My organization invites people to contribute to the organization's vision.	27.	Organisasi saya mengiktiraf warga kerja yang mengambil inisiatif *My organization recognizes people for taking initiative.*
28.	My organization gives people control over the resources they need to accomplish their work.	28.	Organisasi saya memberi peluang kepada warga kerja untuk membuat pilihan dalam melaksanakan kerja mereka. *My organization gives people choices in their work assignments*.

29.	My organization supports employees who take calculated risks.	29.	Organisasi saya mempelawa warga kerjanya menyumbangkan tenaga dan buah fikiran ke arah wawasan organisasi. *My organization invites people to contribute their views to the organization's vision.*
30.	My organization builds alignment of visions across different levels and work groups.	30.	Organisasi saya memberikan kuasa kepada warga kerja menggunakan sumber yang diperlukan oleh mereka untuk melaksanakan kerja mereka. *My organization gives people control over the resources they need to accomplish their work.*
31.	My organization helps employees balance work and family	31.	Organisasi saya memberikan sokongan kepada pekerja yang sanggup mengambil risiko dengan berhati-hati. *My organization support employees who are willing to take calculated risks.*

32.	My organization encourages people to think from a global perspective.	32.	Organisasi saya menyelaraskan wawasan organisasi merentasi pelbagai peringkat dan kumpulan kerja. *My organization builds alignment of visions across different levels and work groups.*
33.	My organization encourages everyone to bring the customers' views into the decision making process.	33.	Organisasi saya membantu warga kerja menyeimbangkan urusan kerja dengan urusan keluarga. *My organization helps employees to have balance life between work and family.*
34.	My organization considers the impact of decisions on employee morale	34.	Organisasi saya menggalakkan warga kerjanya berfikir dari perspektif global. *My organization encourages people to think from a global perspective.*
35.	My organization works together with the outside community to meet mutual	35.	Organisasi saya mendorong setiap warga kerja supaya mempertimbangkan pendapat pelanggan dalam membuat

	needs.		keputusan. *My organization encourages everyone to consider the customers' views in decision making process.*
36.	My organization encourages people to get answers from across the organization when solving problems.	36.	Organisasi saya mengambil kira kesan sesuatu keputusan terhadap semangat warga kerja *My organization considers the impact of decisions on employee morale.*
37.	In my organization, leaders generally support requests for learning opportunities and training.	37.	Organisasi saya bekerjasama dengan masyarakat luar untuk memenuhi keperluan bersama. *My organization works together with the outside community to meet mutual needs.*
38.	In my organization, leaders share up to date information with employees about competitors, industry trends,	38.	Organisasi saya menggalakkan warga kerjanya mendapatkan maklum balas dari seluruh organisasi untuk menyelesaikan masalah.

	and organizational directions.		*My organization encourages people to get feedback from across the organization when solving problems.*
39.	In my organization, leaders empower others to help carry out the organization's vision.	39.	Dalam organisasi saya, ketua biasanya menyokong permohonan warga kerja untuk belajar. *In my organization, leaders generally support employees' application to further their studies.*
40.	In my organization, leaders mentor and coach those they lead.	40.	Dalam organisasi saya, ketua biasanya menyokong permohonan warga kerja untuk mendapatkan latihan. *In my organization, leaders generally support employees' application for training.*
41.	In my organization, leaders continually look for opportunities to learn.	41.	Dalam organisasi saya, ketua berkongsi maklumat terkini dengan warga kerja mengenai pesaing, trend industri dan ekonomi dan hala tuju organisasi.

			In my organization, leaders share up to date information with employees about competitors, industry trends, and organizational directions.
42.	In my organization, leaders ensure that the organization's actions are consistent with its values.	42.	Dalam organisasi saya, ketua memberikan kuasa kepada warga kerja untuk membantu mencapai wawasan organisasi. *In my organization, leaders empower others to carry out the organization's vision.*
43.		43.	Dalam organisasi saya, ketua membimbing kakitangan di bawah mereka. *In my organization, leaders facilitate their subordinates.*
44.		44.	Dalam organisasi saya, ketua memberikan tunjuk ajar kepada kakitangan di bawah mereka.

			In my organization, leaders coach those they lead.
45.		45.	Dalam organisasi saya, ketua sentiasa mencari peluang untuk belajar. *In my organization, leaders continually look for opportunities to learn.*
46.		46.	Dalam organisasi saya, ketua memastikan supaya tindakan organisasi selaras dengan nilai organisasi. *In my organization, leaders ensure that the organization's actions are consistent with its values.*

Readiness to change original and adapted items

No.	Original Item	No.	Adapted Item
1.	I look forward to change at work	1.	Saya amat berharap ada perubahan kerja dengan mengoptimumkan penggunaan media sosial dalam system penyampaian

			jabatan. *I look forward for changes at work by optimizing the use of social media in department's service delivery system.*
2.	Change usually benefits the organization	2.	Perubahan dengan mengoptimumkan penggunaan sosial media dalam system penyampaian jabatan biasanya memberikan manfaat kepada organisasi. *Changes that optimizing the use of social media in department's service delivery usually benefits the organization.*
3.	I usually resist new ideas	3.	Saya biasanya tidak menerima idea baru dengan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan.. *I usually resist new ideas that optimizing the use of social media in department's service delivery.*
4.	I don't like change	4.	Saya tidak suka perubahan dengan

			mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan. *I don't like changes* that *optimizing the use of social media in department's service delivery.*
5.	Most of my co-workers benefit from change	5.	Kebanyakan rakan sekerja saya mendapat manfaat daripada perubahan mengoptimumkan penggunaan media sosial dalam system penyampaian jabatan. *Most of my co-workers benefit from changes by optimizing the use of social media in department's service delivery.*
6.	I am inclined to try new ideas	6.	Saya ingin mencuba idea baru mengoptimumkan penggunaanl media social dalam system penyampaian jabatan. *I am inclined to try new ideas by optimizing the use of social media in department's service delivery.*
7.	Change frustrates me	7.	Perubahan dengan mengoptimumkan

			penggunaan media sosial di dalam system penyampaian kerajaan mengecewakan saya. *Changes that optimizing the use of social media in department's service delivery.frustrates me .*
8.	Change often helps me perform better	8.	Perubahan dengan mengoptimumkan penggunaan media sosial sering membantu saya melakukan kerja dengan lebih baik. *Changes that optimizing the use of social media in department's service delivery often help me to perform better.*
9.	I usually support new ideas	9.	Saya sering menyokong idea baru dengan mengoptimumkan penggunaan media sosial dalam system penyampaian kerajaan. *I usually support new ideas by optimizing the use of social media in department's service delivery.*
10.	Changes tend to stimulate me	10.	Perubahan dengan mengoptimumkan penggunaan media sosial dalam sistem

			penyampaian jabatan nampaknya memberikan dorongan kepada saya. *Changes that optimizing the use of social media in department's service delivery tend to stimulate me.*
11.	Other people think that I support change	11.	Orang lain berpendapat bahawa saya menyokong perubahan dengan mengoptimumkan pengunaan media sosial dalam system penyampaian kerajaan. *Other people think that I support changes by optimizing the use of social media in department's service delivery.*
12.	I often suggest new approaches to things	12.	Saya sering mencadangkan pendekatan baru terhadap sesuatu perkara dengan mengoptimumkan penggunaan media sosial di dalam sistem penyampaian kerajaan.. *I often suggest new approaches to things by optimizing the use of social media in department's service delivery.*

13.	Most changes are irritating	13.	Kebanyakan perubahan seperti mengotimumkan penggunaan media sosial dalam system penyampaian jabatan amat menyulitkan. *Most changes that optimizing the use of social media in department's service delivery are irritating.*
14.	Change usually helps improve unsatisfactory situations at work	14.	Perubahan dengan mengoptimumkan penggunaan media sosial di dalam system penyampaian kerajaan biasanya membantu memperbaiki keadaan yang tidak memuaskan di tempat kerja. *Changes that optimizing the use of social media in department's service delivery usually helps improve unsatisfactory situations at work.*
15.	I intend to do whatever possible to support change	15.	Saya berhasrat untuk melakukan apa sahaja bagi menyokong perubahan mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan.

			I intend to do whatever possible to support changes that optimizing the use of social media in department's service delivery.
16.	I find most change to be pleasing	16.	Saya dapati kebanyakan perubahan seperti mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan memberikan kebaikan. *I find most changes such as by optimizing the use of social media in department's service delivery to be pleasing.*
17.	I usually benefit from change	17.	Saya selalunya mendapat manfaat daripada perubahan seperti mengoptimumkan penggunaan media sosial di dalam system penyampaian jabatan. *I usually benefit from change such as by optimizing the use of social media in department's service delivery.*
18.	I usually hesitate to try new ideas	18.	Saya biasanya berasa ragu-ragu untuk mencuba idea baru seperti mengoptimumkan penggunaan media sosial

			di dalam sistem penyampaian perkhidmatan kerajaan. *I usually hesitate to try new ideas such as optimizing the use of social media in department's service delivery.*

Knowledge sharing original and adapted items

No.	Original Item	No.	Adapted Item
1.	I shared factual knowledge (know-what) from work with my coworkers.	1.	Saya berkongsi pengetahuan berfakta (tahu-apa) dari kerja dengan rakan sekerja melalui media sosial. *I shared factual knowledge (know-what) from work with my co-workers via social media.*
2.	I shared business knowledge about the customers, products, suppliers and competitors with	2.	Saya berkongsi pengetahuan perkhidmatan jabatan dengan rakan sekerja melalui media sosial.

	my co-workers.		*I shared department's service delivery knowledge with my co-workers via social media.*
3.	I shared internal reports and other official documents with my coworkers.	3.	Saya berkongsi laporan dalaman dan pelbagai laporan rasmi dengan rakan sekerja melalui media sosial. *I shared internal reports and other official documents with my coworkers via social media.*
4.	I shared work experiences with my co-workers	4.	Saya berkongsi pengalaman kerja dengan rakan sekerja melalui media sosial. *I shared work experiences with my co-workers via social media.*
5.	I shared know-how or tricks of the trade from work with my coworkers	5.	Saya berkongsi kepakaran sistem penyampaian jabatan daripada kerja bersama rakan sekerja melalui media sosial. *I shared know-how of department's service delivery from work with my co-workers via social media.*

6.	I shared expertise from education or training with my co-workers	6.	Saya berkongsi kepakaran dari pendidikan dengan rakan sekerja melalui media sosial. *I shared expertise from education with my co-workers via social media.*
7.	I shared expertise from education or training with my co-workers	7.	Saya berkongsi kepakaran dari latihan dengan rakan sekerja melalui media sosial. *I shared expertise from training with my co-workers via social media.*
8.	I shared know-why knowledge from work with my co-workers	8.	Saya berkongsi pengetahuan kepakaran (tahu-apa) daripada kerja dengan rakan sekerja melalui media sosial. *I shared (know-why) knowledge from work with my co-workers via social medial.*