Perception of Knowledge Management Among Selected Federal Government Departments in Kelantan

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Abstract: *Knowledge management is a growing field that has attracted the organizations all over the world. Organizations are now considering knowledge as the most important intangible asset that needs to be fully managed and utilized. In the new millennium, the concern of Government of Malaysia in developing the nation through knowledge economy has become apparent. Nevertheless, the implementation of knowledge management, especially in the public sector organizations is inevitably challenging nowadays. Strong demands and expectations from the public for efficient public services delivery coupled with global challenges in the knowledge economy era are driving organizations to consider knowledge management as the strategy to cope with these dynamic factors. However, knowledge management as a discipline is still in the earlier stage of implementation in Malaysia. To achieve an in-depth study, selected federal government departments in Kelantan are chosen as the targeted population. Data is collected through questionnaires survey with the middle and senior management government officers. Responses from the survey determined to what extent their perceptions about the knowledge management. Thus, this study also attempted to improve the level of understanding on the topic among officers from these departments to assist them in formulating a well-defined knowledge management strategy.*

Keywords: *Knowledge Management, Government of Malaysia, Knowledge Economy, Federal Government Departments, and Kelantan*

BACKGROUND OF THE STUDY

Most countries are now moving steadily from an information age to a knowledge age where knowledge has been recognized as the essential aspect in human life. In the business environment, knowledge is one of the most important intellectual assets in the organizations. Individuals and organizations started to understand and appreciate the value of knowledge in the emerging competitive environment.

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Without properly managing knowledge, the organizations could face difficulties to compete between each other and also to improve their products and services. Knowledge management field began in the mid-1990s and since then many organizations around the world have initiated knowledge management implementation.

The impact of knowledge management on the organizations could not be denied but they are mostly applicable in the private sector as compared to the public sector. However, key thinkers of knowledge management like David Skyrme and Karl Wiig mutually supported that knowledge management is applicable in the public sector. Skyrme (2003) highlighted the important role of knowledge management in improving efficiency in decision making and service delivery in public administration. Wiig (2002) suggested that knowledge management could be considered in several areas in public administration such as enhancing decision making within public services, aiding the public to participate effectively in public decision making, building competitive societal capabilities and developing a knowledge competitive work force.

According to Kalsom and Syed Noh (2006), knowledge management sought to align knowledge processes with organizational objectives because improved decision making is an end goal of knowledge management. Therefore, technology, process, people and the organization structure and culture are the key enablers of the knowledge management process.

As there is a need for further study on the field for the purpose of adding value to the existing knowledge, therefore, this research attempted to study about the perception of knowledge management with the selection of federal government departments in Kelantan as the sample of population due to time and resources constraints faced by the researchers. In specifically, the research aimed is to examine their perceptions about understanding of knowledge management, key personnel, technology and critical issues to manage knowledge.

STATEMENT OF THE PROBLEMS

Apart from having effective knowledge management strategies and adequate ICT infrastructure, the major difficulty faced by organizations operated both in the private and public sector, today, is finding a way to overcome those softer cultural and behavioral obstacles that lied in the way of successful implementation of knowledge management. It is concluded by Ruggles (1998) and Taylor and Wright (2004) that the main barriers to implement knowledge management are all people related issues such as poor understanding of what knowledge management involved, a lack of top management leadership and a culture that inhibited knowledge sharing.

Syed Omar Sharifuddin and Rowland (2004) mentioned that although knowledge management has been widely discussed by many academicians and practitioners, there is little literature and information on knowledge as found in the public sector. Most literature and practical application studies concentrated on private sector organizations, as the achievement of implementing a knowledge management programme could be easily identified and measured there. Conversely, in the public sector, studies on knowledge management are rarely found. This is due to the fact that knowledge management is implemented in public sector organizations more for providing services to the public rather than towards gaining financial profit.

RESEARCH OBJECTIVES

The objectives of this study are:
i.   to determine the perception of the government officers pertaining to their level of understanding about knowledge management.
ii.   to find out the government officers' perception on the key personnel who is responsible in managing the knowledge.
iii. to identify the perception of the government officers regarding the technology used to manage the knowledge created.
iv.   to highlight the government officers' perception on the issues that could create obstacles to the successful implementation of knowledge management in their departments.

LITERATURE REVIEW

Definitions of Knowledge Management

There are various definitions of knowledge management derived in the literature. Knowledge management is an interdisciplinary field drawn on a variety of business activities and academic specializations. As its name suggested, knowledge management is concerned with systematic, effective management and utilization of an organization's knowledge resources. It encompassed the creation, storage, arrangement, retrieval and distribution of an organization's knowledge (Saffady, 2000). Prytherch (2000) further stated that knowledge management as the process of collecting, organizing, storing and exploiting the information and data that is held within an organization particularly information known to individuals (tacit knowledge) as well as the general store of known information and data (explicit knowledge). Davenport and Prusak (2000) defined knowledge management is a process that effectively creates, captures, shares and uses organization-wide knowledge to improve the organization's performance and to gain competitive advantage. Then, Wiig (1997) also proposed that knowledge management is the systematic and explicit management of knowledge-related activities, practices,

programs and policies within the enterprise. Another definition by Sveiby (1997) posited that knowledge management is the art of creating value to the organizations by leveraging its intangible assets.

Personnel Involved in Managing Knowledge

According to Syed Omar Sharifuddin & Rowland (2004), when the respondents were asked who is responsible for managing knowledge in the Ministry of Entrepreneur Development of Malaysia, only 48.3% of them felt that the responsibility to manage knowledge in the Ministry should be everyone's job. This is quite surprising as many respondents still felt that the head of the Ministry (27.5%) or the heads of the division/unit (16.1%) are the personnel who responsible for managing knowledge in the Ministry. It was found that 32.2% of respondents who have work experience more that ten years argued that knowledge not their own responsibility. In contrast, only 24.8% of them who have work experience more than ten years believed that knowledge should be managed by everyone in the organization. It also revealed that 17.5% of the respondents who have more than 20 years' work experience argued that knowledge should be managed by someone else in the organization.

Syed Omar Sharifuddin and Rowland's taught agreed by Badruddin (2004) in the research findings which thaught was observed that individual department head (60 respondents) is the most common personnel in steering the knowledge management initiatives in organizations surveyed followed by named position from IT/ system (42 respondents), CIO (24), named position from human resource (23), CKO (16), Director of Business Improvement (16), named position from finance (14) and Board of Director (10). Raja Suzana Raja Kasim (2006) also had the same opinion with Syed Omar Sharifuddin, Rowland and Badruddin on her study to discover the core responsibility and authority of the individual or department that managed the knowledge management activities. A total 22% of the respondents stated that Chief Executive Officer and core management personnel are the main drivers for the knowledge management practices in their organizations.

Technology Utilization in Managing Knowledge

Syed Omar Sharifuddin and Rowland (2004) also found that when the respondents were asked whether technology is the most important element in developing and gaining knowledge, 83.6% of them agreed with the statement. E-mail is said to be the most important of technologies in developing and gaining knowledge and 73.4% of respondents cited it as either "very important" or "most important". Another important technology that used in developing and gaining knowledge is online information sources which 72.1% of respondents cited as either "very important" or "most important". The Internet is believed to be either "very

important" or "most important" in developing and gaining knowledge in the Ministry and a total of 72.1% of respondents agreed with this statement. The least important technologies that used in developing and gaining knowledge are video conferencing (27.2%) and CD-ROMs (41.6%).

Suraya and Jamaliah (2005) agreed with Syed Omar Sharifuddin and Rowland in which from their preliminary study of knowledge management in National Library of Malaysia especially when the respondents were asked whether IT is the best information storage utility for knowledge acquisition and sharing, 96.7% of them agreed with the statement. This is considered normal as most people thought that technology is the answer to manage knowledge in most organizations. Internet is said to be the most popular used channel for acquiring knowledge in which most of the respondents cited that they are frequently used Internet in their daily works followed by OPAC, E-mail, Reading Promotions, Intranet, Mylib Web Portal and Statistics.

Issues in Implementing Knowledge Management

Badruddin (2004) highlighted, based on his study that among the barriers faced by the organizations in implementing knowledge management initiatives are the most difficulty is motivating employees followed by difficulty in identifying knowledge management roles and responsibilities of employees, level of technology within company, ability of existing IT systems, data obsolete and information overload. On the other hand, Sirajuddin, Ahmad Zaki and Rose Alinda (2005) believe that lack of expertise is the main problem faced by Malaysian public institution of higher education in formulating knowledge management strategic planning followed by financial constraints. Wei, Choy and Yeow (2006) found that since many of Malaysian telecommunication organizations implemented knowledge management, they are not aware of the whole spectrum of knowledge management implementation. Due to lack of understanding of knowledge management, the telecommunication organizations faced many difficulties in the implementation process.

Quin, Mohammad Yusoff and Abdul Razak (2006) described that since most public sector agencies are not structured for the application of knowledge management concept, its application is inevitably challenging. Past literature found that challenges pertaining to the application of knowledge management concept revolved around the following factors in which are practices, approaches, people and technology. It is hypothesized that the application of knowledge management concept in public sector agencies in Malaysia also faced the same challenges. There are lack of previous studies on the perception of knowledge management in Malaysian public sector organizations as many studies are more concerned with examining the level of knowledge management implementation in these organizations.

The examples of related studies are included Benchmarking knowledge management in a public organization in Malaysia and knowledge management in a public organization: A study on the relationship between organizational elements and the performance of knowledge transfer by Syed Omar Sharifuddin and Rowland (2004), Knowledge management initiatives: Exploratory study in Malaysia by Badruddin Rahman (2004), Preliminary study of knowledge management in a library: A case study of the National Library of Malaysia by Suraya Hamid and Jamaliah Mohammad Nayan (2005), Implication of knowledge management in higher learning institution by Maizatul Akmar Ismail and Yang (2005), Fostering K-Force through knowledge management innovation in the Malaysian Armed Forces by Ismail Manuri and Raja Abdullah Yaacob (2005), KM in the Local Authorities - A suitable platform for E-Government? by Kalsom Salleh and Syed Noh Syed Ahmad (2006), Knowledge management readiness in organization: A case of public sector in Malaysia by Tan Yit Quin, Mohammad Yusoff and Abdul Razak Hamdan (2006), Knowledge management implementation in Malaysian public institution of higher education by Sirajuddin Suhaimee, Ahmad Zaki Abu Bakar and Rose Alinda Alias and A survey on knowledge management at Mufti's Departments in Malaysia by Nurdiana Azizan and Najwa Hayaati Alwi.

Kalsom and Syed Noh (2006) stressed that research of knowledge management in Local Authorities should include all Local Authorities in Malaysia as this would add additional dimensions and perspectives in dealing with the issues of knowledge management and E-Government in public sector organizations. They also suggested that the perceived importance of knowledge management as a suitable platform for E-Government in Local Authorities should also be obtained from the other important groups of people who are working directly at the forefront of government service delivery such as Ministries, Federal and State government agencies.

CONCEPTUAL FRAMEWORK

In formulating the theoretical perspective for studying the research topic, the conceptual framework was developed as illustrated in Figure 1. This framework indicated the variables of the study. There are five independent variables influencing a single dependent variable. The dependent variable is perception on knowledge management in which the independent variables are government personnel demographic information in terms of their gender, position, educational level and work experience followed by understanding of knowledge management, key personnel, technology and issues to manage knowledge. These independent variables could affect and influence the dependent variable either in positive or negative way.

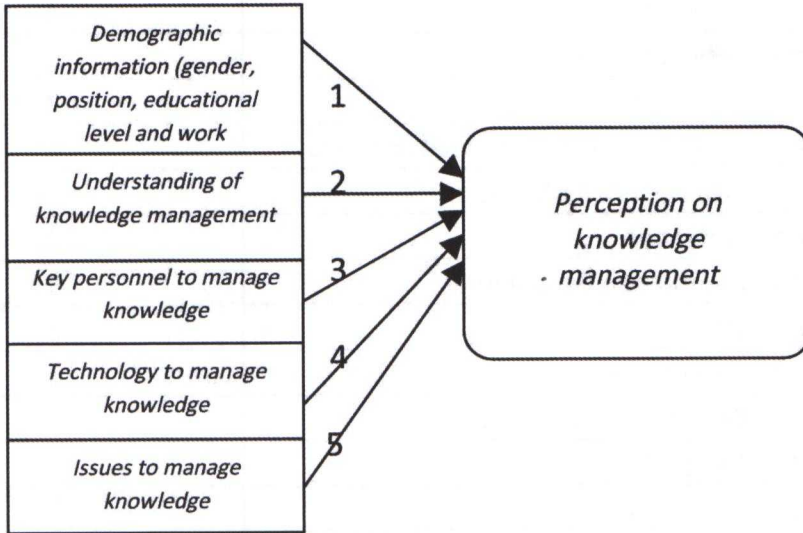**Independent Variables**   **Dependent Variable**

Figure 1: Conceptual Framework

METHODOLOGY

A total of 100 questionnaires were sent to the middle and senior management government officers, particularly those who worked in federal government departments in Wisma Persekutuan and few departments at Kota Bharu, Kelantan based on convenience sampling method.

RESULTS AND FINDINGS

- *Response Rate*

From the total of 100 questionnaires distributed, only 65 questionnaires were retuned, which represented approximately 65% as indicated in Table 1. Apparently, many of the government officers were working outside their departments for few days during the distribution of the questionnaires. However, this survey research has more than 50% response rate and therefore the level of response and confidence are satisfactory to increase validity and reliability of the findings.

Table 1: Total Number of Returned Questionnaires

No	Department	Returned Questionnaire
1	Jabatan Pelajaran	9
2	Jabatan Kesihatan	4
3	Jabatan Penerangan	5
4	Jabatan Perhilitan	2
5	Jabatan Penilaian dan Perkhidmatan Harta	4
6	Suruhanjaya Koperasi Malaysia	2
7	Jabatan Perikanan	2
8	Jabatan Bomba dan Penyelamat	9
9	Jabatan Imigresen	8
10	Pejabat Pilihan Raya	3
11	Jabatan Kemajuan Masyarakat	2
12	Jabatan Tenaga Kerja	3
13	Badan Pencegah Rasuah	2
14	Jabatan Perangkaan	3
15	Jabatan Ukur dan Pemetaan	4
16	Jabatan Keselamatan dan Kesihatan Pekerjaan	3
	Total	**65**

- *Perception on the Level of Understanding About KM: KM as Systematic Management of Tacit and Explicit Knowledge*

The respondents were asked whether knowledge management is the systematic management of tacit and explicit knowledge of the organization to provide services to the public and to improve the effectiveness. As illustrated in Table 2, the results for further analysis in cross tabulation showed that 60.3% of respondents, mostly from officers level and also 36.5% of them from both directors and assistant director committed their statements on "true" and "very true." Knowledge management as stated by Nonaka and Takeuchi (1995) is the management of tacit and explicit knowledge of the organization. The examples of tacit knowledge included idea, skill, experience, best practice, judgment, intuition which are valuable and difficult to be identified and measured. The related example of explicit knowledge is recorded information that physically available either in printed, non-printed or electronic format which easy to be identified and measured. Therefore, based on the findings, it could be evaluated that both middle and senior management government officers are lacking of knowledge and skills on knowledge management.

Table 2: Perceived Level of Understanding About KM:
KM as Systematic Management of Tacit and Explicit Knowledge

		Perceived level of understanding about KM: KM as systematic management of tacit and explicit knowledge			
		Neither true nor not true	True	Very True	Total
Demographic Information: Current Position	Director	0	1	2	3
	Assistant Director	1	11	9	21
	Officer	1	22	16	39
Total		2	34	27	63

- *Perception on the Level of Understanding About KM: KM As Process of Managing Knowledge Through Technology Utilization*

Question was posed on whether knowledge management is the process of managing the knowledge created by the organization through technology utilization. The results for further analysis in cross tabulation as shown in Table 3 revealed that 30.6% of respondents from director, deputy director and assistant director as well as 48.4% of them (officer) said "true" and "very true". Only 6.5% (deputy director) and 1.6% (officer) said "not true" for this statement. In fact, technology infrastructure is merely an enabling tool to support knowledge management (Quin, Mohammad Yusoff & Abdul Razak, 2006). Hence, this is proven that both middle and senior management government officers did not know about knowledge management especially in term of its definition, element, process, tool and technology.

Table 3: Perceived Level of Understanding About KM:
KM as Process of Managing Knowledge Through Technology Utilization

		Perceived level of understanding about KM: KM as process of managing knowledge through technology utilization				
		Not true	Neither true nor not true	True	Very true	Total
Demographic Information: Current Position	Director	0	0	3	0	3
	Deputy Director	0	0	0	1	1
	Assistant Director	4	2	13	2	21
	Officer	1	6	24	6	37
Total		5	8	40	9	62

- *Perception on the Key Personnel to Manage Knowledge*

When asked about who is responsible for managing knowledge in the department, the highest responses indicated that 52.5% of the respondents strongly agreed that it should be director's job followed by 36.7% of them strongly agreed that it should be everyone's job. When these data are further analyzed using cross-tabulation, it was found that 24.6% of respondents who have work experience less than 6 years strongly agreed that the director is responsible for managing knowledge in the department as shown in Table 4. Then, 23.3% of the respondent who have work experience less than 6 years also strongly agreed that the responsibility to manage the knowledge should be everyone's job (see Table 5). In contrast, it was found that 1.6% of the respondents who have more than 10 years work experience strongly disagreed as well as 3.3% of them who have work experience more than 20 years disagreed that knowledge should be managed by everybody in the department. This is not a good sign for a federal government department since the personnel who have more than 10 and 20 years work experience still depended on others to manage the knowledge available in their departments. In order to implement effective knowledge management strategy, all tacit and explicit knowledge should be managed by every personnel in the department.

Table 4: Perceived Key Personnel to Manage Knowledge: Director

		Perceived key personnel to manage knowledge: Director				
		Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Demographic information: Work experience (Number of years)	Less than 6 years	0	1	13	15	29
	6-10 years	1	0	2	8	11
	11-15 years	0	0	5	1	6
	16-20 years	0	0	1	1	2
	More than 20 years	0	0	6	7	13
Total		1	1	27	32	61

Table 5: Perceived Key Personnel to Manage Knowledge: It is Everybody's Job

		Perceived key personnel to manage knowledge: It is everybody's job					
		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Demographic information: Work experience (Number of years)	Less than 6 years	0	1	13	15	29	29
	6-10 years	1	0	2	8	11	11
	11-15 years	0	0	5	1	6	6
	16-20 years	0	0	1	1	2	2
	More than 20 years	0	0	6	7	13	13
Total		1	1	27	32	61	61

- *Perception On The Importance of Technology to Manage Knowledge Created*

Respondents were asked how important current technologies are to manage knowledge created in their departments. As illustrated in Table 6, computer hardware was said to be the most important of technologies for managing knowledge in which 56.9% of the respondents cited it as "very important."

Another important technology that used in managing knowledge is information systems in which 54.7% of the respondents cited it as "very important" (see Table 7). File/document/records management systems are also believed to be "very important" in managing knowledge in the department and a total of 52.5% of the respondents agreed with this statement as shown in Table 8. Further analysis was shown that there is not much difference in the responses between groups of different years of work experience. The two higher scores are from respondents with work experience less than 6 years where 31.3% of them cited information systems as "very important" followed by respondents who also have work experience less than 6 years where 30.8% of them cited computer hardware as "very important." The least important technologies that were used in managing knowledge were video conferencing (12.5%) and intranet (4.8%). Cross-reference between the number of years of work experience and these technologies indicated that the respondents of most groups believed that video conferencing and intranet were "not important" compared to other technologies.

Table 6: Perceived Importance of Technology to Manage Knowledge Created: Computer Hardware

		Perceived importance of technology to manage knowledge created: Computer hardware				
		Not important	Neither important nor not important	Important	Very important	Total
Demographic information: Work experience (Number of years)	Less than 6 years	1	0	9	20	30
	6-10 years	0	0	5	6	11
	11-15 years	1	1	3	3	8
	16-20 years	0	0	1	1	2
	More than 20 years	0	1	6	7	14
Total		2	2	24	37	65

Table 7: Perceived Importance of Technology to Manage Knowledge Created: Information Systems

		Perceived importance of technology to manage knowledge created: Information systems		
		Important	Very important	Total
Demographic information: Work experience (Number of years)	Less than 6 years	10	20	30
	6-10 years	7	4	11
	11-15 years	5	3	8
	16-20 years	0	2	2
	More than 20 years	7	6	13
Total		29	35	64

Table 8: Perceived Importance of Technology to Manage Knowledge Created: File/Document/Records Management Systems

		Perceived importance of technology to manage knowledge created: File/document/records management systems			
		Neither important nor not important	Important	Very important	Very important
Demographic information: Work experience (Number of years)	Less than 6 years	0	10	19	29
	6-10 years	1	6	3	10
	11-15 years	0	3	4	7
	16-20 years	0	1	1	2
	More than 20 years	0	8	5	13
Total		1	28	32	61

- **Perception on the Issues That Could Create Obstacles to the Successful Implementation of Knowledge Management**

When asked about the issues that could create obstacles to the successful implementation of knowledge management in their departments, 31.7% of the respondents commented that difficulties of changing employees' behaviour were the main obstacles in the departments followed by lack of well trained staff and expertise on KM (25.4%) and lack of knowledge sharing culture and trust among officers (22.2%). The results of further analysis using cross-tabulation revealed that many of the respondents with work experience less than 6 years felt that difficulties of changing employees' behaviour could create obstacles to successful KM implementation in their departments. As illustrated in Table 9, the highest scores are from those who have work experience less than 6 years (20.6%) followed by the respondents with work experience 6-10 years (7.9%). In contrast, respondents with work experience less than 6 years (6.3%) and more than 20 years (3.2%) responded to "disagree" for this statement. For the second issue on the lack of well trained staff and expertise on KM, Table 10 showed that 14.3% of the respondents with work experience less than 6 years said that they "strongly agreed" with the statement followed by 6-10 years (4.8%) and 11-15 years (3.2%) claimed that these issues could create obstacles to the successful implementation of knowledge management in the departments. On the other hand, 1.6% of them with work experience less than 6 years "strongly disagreed" with the statement. With regards to the lack of knowledge sharing culture and trust among officers issues, Table 11 indicated that the highest responses are still from the group who have work experience less than 6 years where 12.7% of the respondents said that they "strongly agree" with this statement followed by 11-15 years (4.8%) and 6-10 years (3.2%). However, only 1.6% of them with less than 6 years work experience "strongly disagreed" with the statement.

Table 9: Perceived Obstacles to Successful KM Implementation: Difficulties of Changing Employees' Behaviour

| | | Perceived obstacles to successful KM implementation: Difficulties of changing employees' behaviour | | | | |
		Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Demographic information: Work experience (Number of years)	Less than 6 years	4	0	13	13	30
	6-10 years	1	0	5	5	11
	11-15 years	1	1	5	1	8
	16-20 years	0	0	2	0	2
	More than 20 years	2	2	7	1	12
Total		8	3	32	20	63

Table 10: Perceived Obstacles to Successful KM Implementation: Lack of Well Trained Staff and Expertise on KM

| | | Perceived obstacles to successful KM implementation: Lack of well trained staff and expertise on KM | | | | | |
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Demographic information: Work experience (Number of years)	Less than 6 years	1	2	2	16	9	30
	6-10 years	0	1	1	5	3	10
	11-15 years	0	0	0	6	2	8
	16-20 years	0	0	0	1	1	2
	More than 20 years	0	2	2	8	1	13
Total		1	5	5	36	16	63

Table 11: Perceived Obstacles to Successful KM Implementation: Lack of Knowledge Sharing Culture and Trust Among Officers

		Perceived obstacles to successful KM implementation: Lack of knowledge sharing culture and trust among officers					
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Demographic information: Work experience (Number of years)	Less than 6 years	1	3	2	16	8	30
	6-10 years	0	0	1	7	2	10
	11-15 years	0	1	1	3	3	8
	16-20 years	0	0	0	2	0	2
	More than 20 years	0	3	1	8	1	13
Total		1	7	5	36	14	63

CONCLUSION

The study could verify that most of middle and senior management government officers who worked in the federal government departments in Kelantan did not know or understand clearly the concepts and principles of knowledge management due to the lack of knowledge and skills in that field. They should be aware that competency and efficiency of the management of a federal government department could be determined by systematic management of knowledge. In fact, knowledge management implementation that followed the specific strategies and supported by well-developed technology infrastructure is vital in ensuring the success of any knowledge management program. Therefore, they need to realize that knowledge management must be taken as a shared responsibility. Top management and personnel should give the cooperation and support in order to achieve the successful implementation of knowledge management in their departments and also to address the related issues more carefully and systematically through effective knowledge management strategy for improving the public services delivery particularly with the government's commitment in moving towards knowledge economy in Malaysia. The extent of top management and leadership support would make the difference between success and failure in implementing knowledge management. It is recommended that future research on the topic should include a wide range of sample size/respondents in various federal government departments in other states.

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