



**Challenges in Information Management: Implementation in Technical Department,
Royal Malaysia Police**

**Shamsul Kamal Wan Fakeh, Fifi Natasya Shaari, Kasmarini Baharuddin, Wan Abdul
Malik, Marlia Idrus**

Faculty of Information Management, Universiti Teknologi MARA, 40150 Shah Alam

Abstract Managing information process is common entity in either profit or non-profit organizations as this world required information in whole life aspects. However, how the information is managed make the differences between each other. The amount of information that reaches organizations from the outside and the amount of information that is produced within organizations are still increasing sharply. The processing of all these information sources causing a problems and therefore, organizations will have to find a solution to this situation as recorded information are essential for the successful operation of the facility. Information Management (IM) adapt organizational cycle activity including acquisition from one or more information, distribution to those need it and complete it by disposition phase through archiving or deleting. Information Management (IM) practices must be assimilated into their information culture within respective organization for developing a transformative and communications culture.

Keywords Information Management, Organizatios, Operation, Culture, Transformative, Communications culture

Introduction

This study assists with the investigation or assessment on actual or real life environment scenario on what are the challenges exist in implementing IM in the organization. Through detail and high priority attention to the Information Management (IM), this paper wants to underline that awareness practices and strategic approach to provide tremendous benefits which allows Royal Police Malaysia (RMP) to improve their value of information quality. Thus, this study will emphasize on the importance of knowing the importance of Information Management (IM) besides how impact this scenario can be towards Royal Police Malaysia (RMP) performance for now and the future, besides as a references to other department too. Most of the researcher emphasized on the importance of the Information Management (IM) but it is difficult to find research paper focusing on implementing Information Management (IM) and real challenges appear in the non-profit organization especially in Malaysia. This study will seek and provide answer pertaining to the concerns and finding will be explained in depth to have better understanding and also act as a reference source that may be relevant with the research context in the future. On top of that, the other department or organization may use the findings to improve and mitigate the challenges in supporting Information Management (IM) concept. In addition, it also can enhance reader awareness on the negative impacts if organization's own information been neglected. Management simply defines as administration of an organization that involves activities of forecast, plan, organize, command, coordinate and control to accomplish its objectives or goal through application of available resources such as financial, natural, technological and human resources. Scope of management includes transformation of resources into utility. Information Management (IM) is a wide conceptual term that has several meanings among authors. It is also an umbrella term that encompasses all the systems and processes within organization for the creation and use of corporate information. Ellis and Desouze (2009) state that



Information Management (IM) is when available information been put to the maximum usage thus contribute in valid decisions by providing accurate and latest information and performing analytic functions. IM generally exist in library professional field which they are dealing in classifying, indexing or abstracting the useful information related in books, journals, databases to ensure the accessibility to the target audience can be achieved. Information Management (IM) mainly engaged with explicit and documented knowledge that can be transferred or shared in forms of either printed or non-printed formats within or outside the organization. Information Management (IM) concerns the control over how information is identified, acquired, organized, stored, distributed, and used as a means of promoting.

Information Management (IM) Practices in Organization

An Information Management (IM) practice is about the capability on how organization adapts the process by following the Information Management (IM) cycle.

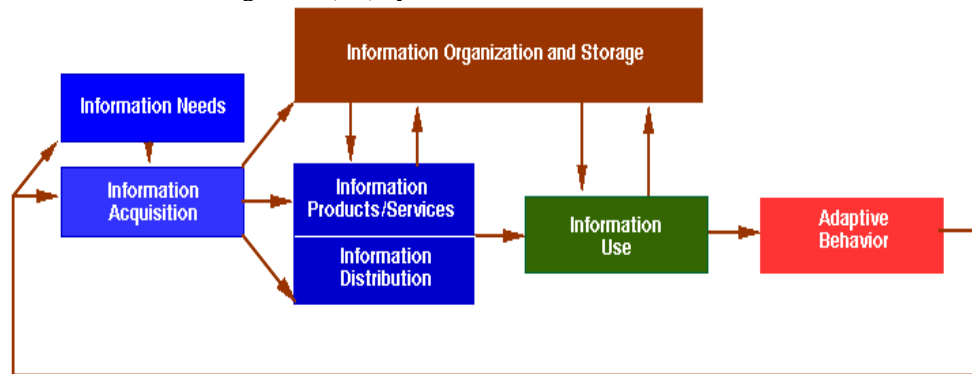


Figure 1: The Process Model of Information Management

Choo (2002) present a model of Information Management (IM) process as shown in Figure 1, with continuous cycle involving six linked activities which are information needs, information acquisition, information organization and storage, information distribution and lastly information use. The process then restarts with adaptive behavior as new information been created in the organization.

Information needs – when organization team members hunt for information on how to make decision and solve problems related to specific situations encountered in uncertain environments. It explains identification of information needs must emphasis on expanding the true needs of the users (what information is needed; why it is needed and how it will be used?). It is the fundamental basis for a well operating information process. Identifying information needs not only includes determining the topics of interest to the user, but also the attributes of the information to be provided that will enhance its value and usefulness. Nowadays, information is like water. They are endless created and changing, therefore it is important that information must be accurately documented to ensure it is accessible when needed.

Information acquisition – refer to the task capturing all sorts of relevant information on how things are currently done, information flow, data used in the process, and must be executed to satisfy correctly information requirement of the organizations. This process consider as complex due to organization's information needs and limitations of human intellectual capability. It also needs many people to be involves to evaluate the information been gathered along the phase. In creating information, it is vital to ensure that the document comprises or relevant content besides act as a valuable sources of information to the others. Information organization and storage – a proper information storage system provide easier path in finding information according to specific problem or purposes. Traditionally, it is used to modernize and restructure of paperwork techniques. Effective storage creates a vital part in the organizational memory and important for decision making. If the data or information being stored in unorganized way, thus it will difficult for them to be accessed, updated and managed in the future. It is a necessary to organize and store the acquired information in such a way permitting information sharing and retrieval. Brooks (2007) also claimed that a lot of information is saved and stored in numerous different places and each day more documents been received and created. Therefore, in order to ensure the growing amount of information is controlled and being drowned by the irrelevant information, retention schedule is suggested to be established.



Information Resources

Information resources consider as source or supply from which a benefit is produced. Jones (2008) categorized information resources into two different elements which are information as tactical resources including people, capital and equipment while and information technology system that support the whole process of Information Management (IM) in the organization. Besides that, it is also related to the other types of information services for instance computer centre, communication centre, library and information skills direct from the workers. Based on previous study, it can be said that those elements are related to each other where information depends on the technology deployed and technology systems require useful information to make it beneficial to the organization. Information is now become more important than capital (Drucker, 2010) and arrives from various sources and also be part of communication. Information as an organized data derives with weight and purpose. Gordon (2002) added to define information as data that has been processed into meaningful form to the receiver or else, it will remain nil. Data and information is a key asset of an organization, department or unit. Since information is classified as substances in messages conveying, they develop major concern regarding on their quality and trustworthy.

Perceptions and Challenges in Implementing Information Management

A number of additional problem may be appears after the organization obligates to start whole Information Management (IM) process, including complications in developing new management skills, less capability to recognize the utilization of information, training by third party are less available, and limited developments to basic **information technology** in current outside market place (Binshan, 1994). In addition, according to Wang et al., (1995), inaccurate or mistaken information can give negative impact and costly to the organization in terms of operational errors and weak decision making. However, according to Brown (2002), the bigger challenges for management arrangements are not totally due to lack of information, but more to deficiency of imagination, defective and insufficient analysis, cannot interpret information into clearer picture and failure to relate information to action that need to be taken. Besides technology competence of staffs, Guoqing et al., (2007) also highlight issue on support of middle-level managers. At the beginning of Information Technology (IT) applications, most of the resistance comes from low level employees who frequently affected by implementing Information Management (IM) in the organization. Since the application become more depend and complex, flexible organizational structures seems possible. At this point, the developments and implementation of new Information Technology (IT) system applications turn to be more difficult to success as mid-level managers may support or decline the practice (Guoqing et al., 2007). Besides Information Technology (IT) resources rapidly growing from day to day, the demand for the **expertise and competent staff** keep increasing as well. Unfortunately, this phenomenon is not predicted to cause any changes comprehensively in the coming years.

The other issue arise is regarding consistency of organizational **policies** in managing information. Research by Guoqing et al., (2007), study noted that this scenario often happen in Chinese companies and mostly in China. Behaviors and preferences of top executives do affect the governance and management in organization by neglecting the regulations and standard mechanisms attach to it (Guo et al., 2007). Although they are aware on the importance of the Information Management (IM) systems application, the development could be harm as when the top executive's changes, left successor may not stick with the existing policy thus duplication or redundant of managing information may be occurred. Besides that, the one who responsible in managing the information is not from information professional field, therefore it always been a query on handling the information effectively (David, 2010; Abell and Oxbrow, 2011). When the information is brake down to data elements and save in the computer as a normal file, difficulties in retrieving can be easily overcome. Meanwhile, in the case of document records, this issue is regularly become more severe because the document or form is designated for one or limited purpose in view. Any correlated theoretical framework to simplify the management system must ensure and should allow multiple purposes taken into consideration. Technologies alone will not lead a company or college to become a leader. It is only a satisfied. To remain competitive, organization must keep up with technological advancements. But with technology, even the best one provided, will take the organization only half as far as it needs to go. The people in organizations itself must have imitative to take them all the way to success as information can provide competitive benefits and improve the overall performance of the organization.

Conceptual Framework

This section describes about the method in collecting necessary data for the study. It should be in lined with the objectives has been discussed in previous chapter and problem statement. It encompasses a chain of rational



decisions concerning the purpose for the study, type of investigation, analysis, location, research interference, time horizon and the level of which data will be analyzed. These are important because it is a set of plan for the research we plan to undertake.

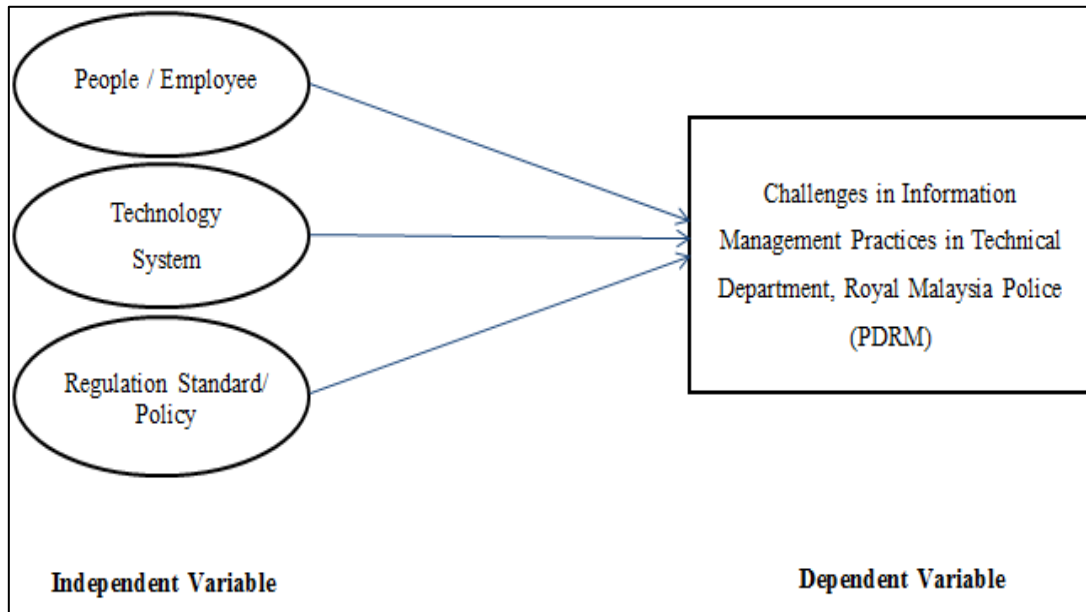


Figure 2: A Conceptual Framework on Challenges in Implementing Information Management

This conceptual framework is created to have better understanding in determining the independent variable related to the Information Management (IM) implementation and challenges arises in Royal Malaysian Police (RMP). As shown in the Figure 2: the independent variables will be obtained through the interview that will be conducted later. The variables can be achieved from the interview to the respondents whereas the measurement of the variable will be delivered in terms of list of questionnaires. Information runs between people through networks and organization just similar like water flows through a metropolis. Information can be captured, which make it easier to control both access to and the quality of the information. Information is needed to be always fresh or else, it needs to be flush out to maintain them as assets. People require information to take action on situation by making right decision. Managing information process can be gained from awareness on how information been appreciated and the usefulness towards organizations.

Managing the Information

Information Management (IM) is now becoming necessary and it is no longer limited only to libraries that classically deal with it. It is an independent body of knowledge and sophisticated structures that are at the heart of the information industry. It is of central importance to most aspects of life in information society. At first, importance of the information may be varied depends on the level of the people position in the organization. Besides that, proper managing information also can be identified by evaluating the Information Management (IM) practices in the organization. From this dimension, the impacts that can be derived of having Information Management (IM) either positive or negative also can be recognized as well. In handling the information, the efficiency and skills attached may influence on the process been regulated in it. There is a difference when expertise takes part compare to the one who do not have adequate understanding in doing Information Management (IM). System is a set of working together as a part of a mechanism or principles or an interconnecting network as a scheme or method. System can be implemented in various disciplines. A good system will make organizing information easy for retrieval when needed besides reducing the time and effort require to reconstruct vital information in the event of any losses. Methods on how information is acquired will determine the effectiveness if any system been implemented in the organization. It will directly affected by the techniques used to be enrich well management and tools to carry out the process involving IT or non-IT development. Information comes in various types and forms therefore the organization needs to know how to store the information effectively without losing it. In addition, the information needs to be conveyed to another people but it must be done systematically. A good communication just not only relies on the quality of the information received, it also takes into account the speed of information delivers from one to another. Besides



that, some information is considered as classified therefore a standards or policy need to be crafted in order to protect the information itself.

Challenges in Practicing Information Management

Obviously there will be a challenges or issue arise together to accomplish any task to reach the goal or objectives that be intended at the early stage of the process. This may come either from the internal factors means from the people or staff in the organization itself (human resources) or even by the external factors such as due to system costing, supporting from the top level management or else. Organizational issues exist which people may feel frustrated with a new implemented system that are challenging and time consuming. Finding or searching for certain required information frequently listed in a common challenging to the structure of the system housing information and expended nature of the organization. Moreover, failure in doing decision will be even worse when national security aspect is taken into consideration. The other acknowledges issue introduced is to make decisions that are scientifically reliable and valid. The organization and challenges arise along with the process, the relationship in achieving the objective will be analyse. Therefore, qualitative research method been chosen as the best method for further exploration. It is deployed to gain insight of different opinions, underlying reasons and motivations. It provides comprehensive study into problems and helps to cultivate ideas or thoughts for potential quantitative research if any. The correlation will examine any possible variables that appear before any hypothesis is made.

Data Analysis Technique

A qualitative research design is adopted in this research as it will develop well understanding that is difficult to obtain through others design that having survey data to a large number of respondents. The act of discovering and exploring the research in details is rely on the understanding and words through the conducted interview. The interview conversation is recorded to avoid any data missing and will be transcribe in a different script before the collected information is analyse. In spite of it, the respondents gesture and body language also taken into account to have a better understanding.

The interview for a core data collection is prepared to fulfill the objectives of the study. The confidentiality and privacy matter of the interview will be explained to the respondents without fail too. This is necessary to ensure the involvement is secure as the respondents agree to participate in this research. Data is gathered by semi-structured interviews where additional questions may be added as the interview is take place. Besides that, document analysis of secondary data for such related research is planned to be done to have deeper knowledge rather than having real data after all. An observation technique that involves the group behavior in the departments also will be deployed covertly. In response to a leadership questions, all respondents agreed upon the absence of effective leadership that IM cannot be successful in Technical Department, RMP unless strong leadership lead the ICT initiatives. Respondents also agreed upon administrative issues will certainly play a central role in designing and implementing IM. All respondents strongly believed that a strong and knowledgeable leadership is always required for a successful implementation of an IM. Concerning resistance to change, most of the respondents did not believe that inertia is a main challenge, although they agreed this factor cannot be ignored. Most of the respondents believed that once proper ICT and IM mechanisms are in place, then resistance will not be a major challenge to implementing IM in organization.

Theoretical Implication

The studies conducted previously on IM implementation and referenced here highlighted implementation challenges in developing countries as a group. Applying this study to Technical Department, RMP may contribute to our understanding of key challenges being faced in implementing the IM process, specifically in our country. The current study contributes some significant findings to the academic field of studying the IM implementation challenges. Literacy is also considered to be important factor as it drives the people toward the know-how of technology. Most of the respondents believe that literacy is a must so one can benefits from IM implementation. This is particularly the case with ICT literacy, according to the respondents. In response to the awareness factor, most IM among staff is very low, and this may result in a failed launch of IM. Since IM includes information gathering from between sub-sections, strong IM awareness is required for efficient deployment; otherwise, efforts will be wasted and duplicated. All respondents believed that without having widespread ICT knowledge, staff participation will not improve under the IM implementation and that such knowledge is currently helping only by the affluent. To overcome such a challenge, special training is needed in everyone and each



of the staff in the department. Synchronization also plays a central role in IM implementation. Proper and strong synchronization among different sub-section business like IS (Information System), is always needed for efficient implementation and smart coordination mechanisms would help in the success of IM. ICT Infrastructure, on the other hand, is not viewed as a major stumbling block to IM successes. Most of the respondents believe that there are already enough infrastructures in place, so it will not be a major problem for implementing IM. Privacy plays an important role in IM implementation. Technical department dealing with no other than confidential and top secret information therefore, high security appliance is essential. The security of the ICT application is also considered as an important factor. The IM applications which are based on different layers, such as presentation, business and data must be secured so that everyone gets assured that their data is securely modified, as most respondents.

Conclusion

Governments around the world are under pressure from rapid globalization, economic, social and technological changes to provide services that are efficient, transparent, and effective, and one-stop, any time and nonstop. The adoption of technology is the most efficient way to integrate the technical information and to provide services with accountability, transparency and efficiency, but this is not an easy task, especially for enforcement body. This research looked at IM implementation challenges in Technical Department, Royal Malaysian Police (RMP). A literature review shows many challenges common among those government sectors, a lack of ICT literacy, incomplete infrastructure, a digital divide existing between the rural poor and the urban middle class, the uncertainty about data privacy and data security, the absence of comprehensive ICT policies and legislation, lack of an ICT culture in government and the traditional components of the economy and resistance to change. The survey questionnaires are developed based on the challenges found in the literature review. The survey was circulated to 94 respondents who were experts in dealing with technical information. The limitations of this study were time constraints and difficulty to generate enough participation in the survey. In additional constraints, survey could only include very few staff of the top management. Second, the study is limited due to the lack of research materials for this study. Many difficulties encountered with respect to finding materials of previous research studies on the topic and in particular in the context of local Malaysian. Based on the limitations and findings from the study, several suggestions may be proposed for future research as following: limited numbers of experts (CIO, IT, and Management experts) from the government and need to get real interviews with the actual respondents.

References

- [1]. Abell, A. & Oxbrow, N. (2001). *Competing with Knowledge: The Information Professional in the Knowledge Management Age*, Library Association Publishing, London. 48(4), 54-8.
- [2]. Andreas, D., Peter S., (2008). *Information Management (IM) and service integration at German universities*, Library Hi Tech, 26(4), 654-662.
- [3]. Bilgihan, A., Okumus, F., Nusair, K.K., Kwun, D.,J.,(2011). *Information technology applications and competitive advantage in hotel companies*. Journal of Hospitality and Tourism Technology, 2(2), 139-153.
- [4]. Binshan L., (1994). *Managing in an Information Highway Age: Critical Issues*. Industrial Management & Data Systems. Journal of Information Management (IM), 94(8), 3-7
- [5]. Brooks, C. (2007) *Records Management 101*, AIIM E-Doc Magazine, 21(3), 16-18.
- [6]. Brown, A. (2002). *Avoiding unwelcome surprises*, The Futurist, 36(5), 21-3.
- [7]. Cengiz K., İhsan K., Emre C., (2011). *Intelligence decision systems in enterprise Information Management (IM)*.Journal of Enterprise Information Management (IM), 24(4), 360-379.
- [8]. Choo, C.W. (2002). *Information Management (IM) for the Intelligent Organization: The Art of Scanning the Environment* (3rd ed.). Medford, NJ: Information Today.inc
- [9]. Davenport, T. (2007). *Competing on Analytic: The New Science of Winning*, Harvard Business School Press, Boston, Harvard Business School Publishing Corporation, 57-64.
- [10]. Drucker, P. (2001). *Management Challenges for the 21st Century*, Harper Business Press, New York, NY.
- [11]. Gordon, B., Davis, M. and Olson, H. (1984). *Management Information Systems: Conceptual Foundations, Structure and Development*, 2nd ed., McGowan-Hill, New York, NY.



- [12]. Ellis, P., & Desouza, K. C. (2009). On Information Management (IM), environmental sustainability, and cradle to cradle mentalities: A relationship framework. *Business Information Review*, 26(4), 257-264.
- [13]. Eva, S., (2017), Knowledge Management Skills Applicable to Information Management (IM) – Information Management (IM) Skills Applicable to Knowledge Management in an Organization, in James M. Matarazzo , Toby Pearlstein (ed.) *The Emerald Handbook of Modern Information Management (IM)*, 571 – 604.
- [14]. Gorman, G.E., Corbit, B.J. (2002). Core competencies in Information Management (IM) education. *Journal of Enterprise Information Management (IM)*, 103(11), 436-445.
- [15]. Gordon, T.J. (2002). And who asked your opinion?. *Information World Review*, 178, 14.
- [16]. Jacqueline, E.T, (2017). Asset management the track towards quality documentation. *Records Management Journal*, 27(3), 302-317.
- [17]. Jones, W. (2008). *Keeping Found Things Found: The Study and Practice of Personal Information Management (IM)*, Morgan Kaufman Publishers, Boston, MA.
- [18]. Ken G., (1995). Information resource management, *Work Study*, 44(1), 20-21.
- [19]. Keller, C. (2009). User acceptance of virtual learning environments: A case study from three Northern European universities. *Communications of the Association for Information Systems*. 25, 465-486.
- [20]. Laura Skouvig, (2017), *Information Cultures: Shapes and Shaping of Information*. *The Organization of Knowledge*, 12, 17 – 31.
- [21]. Leigh, M., Barbara, G. , (2017), Information Veracity and the Threat of Fake News, in James M. Matarazzo , Toby Pearlstein (ed.) *The Emerald Handbook of Modern Information Management (IM)*, 409 – 435.
- [22]. Lynne Bowker, César Villamizar, (2017). Embedding a records manager as a strategy for helping to positively influence an organization’s records management culture. *Records Management Journal*, 27(1), 57-68.
- [23]. Meagher, R. (2003). Putting 'Strategic' into Information Management (IM): if information is not strategically managed as an asset, Information Management (IM) will be under-resourced, under-valued, under-appreciated, and under-respected. *Information Management (IM) Journal*, 3.
- [24]. Nordheim, Stig & Päivärinta, Tero. (2006). Implementing enterprise content management: From evolution through strategy to contradictions out-of-the-box. *EJIS*, 15, 648-662.
- [25]. Oliver, G. (2008). Information culture: exploration of differing values and attitudes to information in organizations. *Journal of Documentation*, 64(3), 363–385.
- [26]. Paul, R.J. (2007). Change strikes back. *European Journal of Information Systems*, 16, 1-2.
- [27]. Rae, A. and Samuels, P. (2011). Web-based personalize system of instruction: an effective approach for diverse cohorts with virtual learning environments. *Computers & Education*, 57(4). 2423-2431.
- [28]. Ralph Strömfelt, (1991). More than just IT: Strategic Information Management (IM). *As-lib Proceedings*, 43(2), 93-98.
- [29]. Ravichandra, R. IK, (1999). INFORMATION MANAGEMENT (IM): Scope, Definition, Challenges & Issues. *DRTC Workshop on Information Management (IM)*, Indian Statistical Institute.
- [30]. Regina Gyampoh-Vidogah, Robert Moreton, David Proverbs, (2003). Implementing Information Management (IM) in construction: establishing problems, concepts and practice. *Construction Innovation*, 3(3), 157-173.

