A Review of the Common Factors Influencing E-Records Implementation in Business Organizations

Nurzeelawati Norolazmi, Irwan Kamaruddin Abd Kadir, and Mohd Ridwan Seman@Kamarulzaman

Universiti Teknologi MARA, Kampus Puncak Perdana 40450 Shah Alam, Selangor, Malaysia

Email: zeela28@gmail.com

Abstract. E-records have improved management and decision-making and easy to access information anywhere as well as to reduce the risk of information loss in business organizations. In a business organization, e-records are now very important for new developments and discoveries. E-records play an important role in ensuring effective service delivery and quality delivery in business organization. The purpose of this study is to review the common factors influencing e-records implementation among the business organizations based on literature review. This paper explores the factors on the adoption model for e-records implementation in business organizations by providing supportive evidence from existing research

Keywords: Electronic records implementation, electronic records management system, common factors, business organization, information management, library management.

1   Introduction

E-records is defined as Method for electronic equipment of any document or record produced, communicated and operated, not limited to Word and Excel documents, electronic mail, computer-based journals, appointments and calendars, electronic organizers and databases (The University of New South Wales, 2016). Business organization is defined as an entity that is intended to carry on a commercial business by providing goods or services. General characteristics of business organizations are like formal structures aimed at achieving goals, direction requirements, the use of resources and the rules governing the law. The different forms of business organizations are Sole Proprietorship, General Partnership, Limited Partnership, Corporation, "S" Corporation, and Limited Liability Company (US Legal, 2019). The adoption on e-records management practice in business organizations is still at the bottom of the stage as the organization still uses the traditional recordkeeping system, different with the government

A Review of the Common Factors Influencing E-Records Implementation in Business Organizations

(Muaadh Mukred, Zawiyah M. Yusof, Umi Asma' Mokhtar & Nazura Abdul Manap, 2016). The objectives of the study are to investigate whether organization level influenced the implementation of e-records, to study whether technology level influenced the implementation of e-records, to examine whether environment level influenced the implementation of e-records and to study whether adoption of e-records implementation influenced the organization, technology and environment.

According to Burkan et. al. (2020), as a records management tool, many organizations have chosen to implement E-Records. E-Records has changed the way organizations interact with their records. The purpose of implementing E-Records is to obtain an accurate and easy to access information anywhere as well as to reduce the risk of information loss. In addition, this E-Records can improve employment services and increase efficiency in records management. To identify relevant information, human intervention is still needed to handle these records because the nature of the information and records stored in the E-Records.

2 Summary of Common Factors Extraction

This table shows the various research model used in the influencing of E-Records implementation from year 2013 to 2019 taken from eleven (11) articles. There have three types of variables, which is independent variables, dependent variables and mediation or moderation. All models mostly were integrated and adopted from previous research model. These is the most common factors that influencing the implementation of E-Records in Business Organizations. From this table, there are forty-five (45) independent variables, eleven (11) dependent variables and four (4) mediation or moderation common factors extraction from previous research model. When implementing E-Records in Business Organizations, it is believed that the factors found are the most common ones that influencing the implementation E-Records.

Table 1: The various research model used in the influencing of E-Records implementation from year 2013 to 2019 taken from eleven (11) articles.

Independent Variables	Dependent Variables	Mediation / Moderation	Authors
Organization Environment Technology	E-Commerce Adoption	-	Integrating TAM and TOE Frameworks and Expanding their Characteristic Constructs for E-Commerce Adoption by SMEs, Awa, H. O., Ojiabo, U., & Emecheta, B. C.
External Environment Technology Perception	Adoption of Cloud Computing for Innovation	-	Adoption of Cloud Computing in Emerging Countries: The Role of the Absorptive Capacity,

Independent Variables	Dependent Variables	Mediation / Moderation	Authors
Absorptive Capacity			Youssef, A. B., Hadhri, W., & Maherzi, T.
Human dimension Technological dimension Environmental dimension Organisational dimension	Human Resource Information System Adoption	-	Critical Factors Influencing Decision to Adopt Human Resource Information System (HRIS) in Hospitals, Alam, M. G. R., Masum, A. K. M., Beh, L. S., & Hong, C. S.
Organisational Context Technological Context Environmental Context	SMEs Adoption of Enterprise Systems	-	ERP adoption cost factors identification and classification: a study in SMEs, Haddara, M., & Elragal, A.
Absorptive Capacity for Understanding Absorptive Capacity for Assimilating Absorptive Capacity for Applying Communication Trust System Trust Vendor	Intention	Perseived Ease of Use Perseived Usefulness	The role of absorptive capacity, communication and trust in ERP adoption, Mayeh, M., Ramayah, T., & Mishra, A.
Technological Context Organizational Context Environmental Context Innovation Characteristics	Cloud Enterprise Resource Planning (ERP) Adoption Intention	-	Factors affecting cloud ERP adoption in Saudi Arabia: An empirical study, AlBar, A. M., & Hoque, M. R.
Functionality Matching Implementation results Attitude of users	Performance evaluation after implementation of Enterprise Resource Planning (ERP) System	-	System Selection and Performance Evaluation for Manufacturing Company's ERP Adoption, Niu, B. Z., Chen, K. L., Huang, H. Z., Li, Y., & Chen, L.

A Review of the Common Factors Influencing E-Records Implementation in Business Organizations

Independent Variables	Dependent Variables	Mediation / Moderation	Authors
Individual Technological Environment	Intention to adopt of Electronic Records Management System (ERMS)	-	A Framework for Electronic Records Management System Adoption in the Higher Professional Education: Individual, Technological and Environmental Factors, Mukred, M., Yusof, Z. M., Asma'Mokhtar, U., & Fauzi, F.
Perceived vulnerability Perceived severity Response efficacy Response efficacy Self-efficacy Response cost Subjective norm	Perceived vulnerability	Perceived vulnerability	Compliance With Electronic Medical Records Privacy Policy: An Empirical Investigation of Hospital Information Technology Staff, Sher, M. L., Talley, P. C., Yang, C. W., & Kuo, K. M.
Performance expectancy Effort expectancy Social influence Facilitating conditions	Use behavior	Behavioral intention	Factors affecting the adoption of HRIS by the Bangladeshi banking and financial sector, Rahman, M. A., Qi, X., & Jinnah, M. S
Human Organization Technology Environment	Decision to adopt Hospital Information System (HIS)	-	Organizational decision to adopt hospital information system: An empirical investigation in the case of Malaysian public hospitals, Ahmadi, H., Nilashi, M., & Ibrahim, O.

3   Summary of Common Factors Influencing E-Records Impelementation

This table summarize of common factors influencing e-records implementation, shows the most variables used from the previous research model that taken from table summary of the common factors extraction. The most variables used from the previous

research are organization level, technology level and environment level. Factors such as top management support and organizational culture were considered as organization factors whilst lack of knowledge and IT Infrastructure were considered as technology factors. In addition, policies and vendor support were considered as environment factors.

Table 2: The summary of common factors influencing e-records implementation

Division	Factors	Authors
Organization	Top management support	Alam et. al., 2016; Haddara & Elragal, 2013; Albar & Hoque, 2019
	Organizational culture	Albar & Hoque, 2019
Technology	Lack of knowledge	Youssef et. al., 2015
	IT Infrastructure	Alam et. al. 2016
Environment	Policies	Mukred et. al, 2018
	Vendor Support	Ahmadi & Ibrahim, 2015

The explanation of each factor is described as follows:

3.1 Top Management Support

In implementing e-records, top management support was identified as a more important factor influencing e-records management decisions. Top management support plays an important role in overcoming potential internal barriers after using e-record and also ensuring successful implementation of e-records (Alam et. al, 2016).

3.2 Organizational Culture

According to Mohtaramzadeh et. al. (2018) stated that with the success or failure of the e-records implementation in organizations, the organizational culture has been recognized as a basic factor. Intranet use is encouraged by an organizational culture that emphasizes trust, flexibility, innovation, policies, management of information and procedures.

3.3 Lack of Knowledge

There is lack of skills or knowledge staff in electronic records management system in business organizations. The problem of managers in evaluating new technologies is very important. Managers play an important role in the process of identifying new technologies. They evaluate more based on the criteria of current and lesser implications of their future use. In the hiring process, successful IT knowledge and skills have a huge impact (Youssef et. al., 2015).

3.4 IT Infrastructure

According to Albar & Hoque (2019) stated that the e-records implementation is based on the organization's IT infrastructure. The technological level includes IT infrastructure that facilitates the progression of information inside an organization. To use e-record, organizations must guarantee that they have sufficient bandwidth for Internet connection.

3.5 Policies

Record management policy is the basis for successful record management. There are several issues raised regarding the implementation of electronic records management system in business organizations. There is lack of policy in records management system in business organizations and staffs also are lack of skills or knowledge in electronic records management system. It is because there is no support from top management in investment on records management (Umi Asma' & Zawiyah,2009).

3.6 Vendor Support

According to Kim et. al. (2017), vendor support positively affects the intention to use of e-records. Quality improvement and advanced process implementation should be actively promoted where vendors should be actively involved in marketing programs such as promotional activities with community sites and incentives for industry associations.

4   Conclusion

As a conclusion, this paper is discussing on the common factors influencing of e-records implementation in business organizations from the literature review, according to these three divisions. Top management support and organizational culture were considered as organization factors whilst lack of knowledge and IT Infrastructure were considered as technology factors. In addition, policies and vendor support were considered as environment factors. This paper has proposed a set of three (3) factors, which is believed to be more suitable for business organization implementing e-records.

It shows that the implementation on e-records management practice in business organizations is still at the bottom of the stage as the organization still uses the traditional recordkeeping system, different with the government (Muaadh Mukred, Zawiyah M. Yusof, Umi Asma' Mokhtar & Nazura Abdul Manap, 2016).

The biggest challenge of the digital system is the maintenance and creation of reliable records and more time of authenticity as well as reliable records for every organization (Duranti, 2010). With the use of any technology in the organization, support and involvement of top management in the organization are often identified as important factors and also help raise awareness of the benefits of technology across the organization through formal communication.

Lastly, in order to reduce the resistance in organizational change, by providing the necessary technology infrastructure and sponsoring training in technology use. As new technology initiatives continue, top management support leads to stronger and less resistance commitment from lower-level workers (Kurnia, et. al., 2015).

References

Alam, M. G. R., Masum, A. K. M., Beh, L. S., & Hong, C. S. (2016). Critical factors influencing decision to adopt human resource information system (HRIS) in hospitals. PloS one, 11(8).

AlBar, A. M., & Hoque, M. R. (2019). Factors affecting cloud ERP adoption in Saudi Arabia: An empirical study. Information Development, 35(1), 150-164.

Awa, H. O., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. Journal of Science & Technology Policy Management.

Burkan Hawash, U. A., Yusof, Z. M., Mukred, M., & Ali, W. (2020). Intention to Adopt Electronic Records Management System in the Oil and Gas Sector in Yemen. International Journal, 9(5).

Business Organization Law and Legal Definition. (2019). US Legal. Retrieved June 23, 2019 from https://definitions.uslegal.com/b/business-organization/

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 319-340.

Duranti, L. (2010). Concepts and principles for the management of electronic records, or records management theory is archival diplomatics. Records Management Journal. 20(1), 78-95.

Glowalla P & Sunyaev A (2012) A process management perspective on future ERP system development in the financial service sector. AIS Transactions on Enterprise Systems 3(1): 18–27.

Kim, S. H., Jang, S. Y., & Yang, K. H. (2017). Analysis of the determinants of software-as-a-service adoption in small businesses: Risks, benefits, and organizational and environmental factors. Journal of Small Business Management, 55(2), 303-325.

Kurnia, S., Karnali, R. J., & Rahim, M. M. (2015). A qualitative study of business-to-business electronic commerce adoption within the Indonesian grocery industry: A multi-theory perspective. Information & Management, 52(4), 518-536.

Kwon, T., & Zmud, R. (1987). Unifying the fragmented models of information systems implementation. In R. Boland & R. Hirschheim (Eds.), Critical issues in information systems research. New York: John Wiley.

Masum, A. K. M., Beh, L. S., Azad, M. A. K., & Hoque, K. (2018). Intelligent human resource information system (i-HRIS): a holistic decision support framework for HR excellence. Int. Arab J. Inf. Technol., 15(1), 121-130.

Merigó Lindahl, J.M., López-Jurado, M.P., Gracia Ramos, M.C (2009). A decision-making method for educational management based on distance measures. Revista de Métodos Cuantitativos para la Economía y la Empresa 8

Mohtaramzadeh, M., Ramayah, T., & Jun-Hwa, C. (2018). B2B e-commerce adoption in Iranian manufacturing companies: Analyzing the moderating role of organizational culture. International Journal of Human–Computer Interaction, 34(7), 621-639.

Muaadh Mukred, Zawiyah M. Yusof, Umi Asma' Mokhtar & Nazura Abdul Manap.(2016). Electronic records management system adoption readiness framework for higher professional

education institutions in Yemen. International Journal on Advanced Science, Engineering and Information Technology, 6(6), 804-811.

Mukred, M., Yusof, Z. M., Asma'Mokhtar, U., & Fauzi, F. (2018). A framework for electronic records management system adoption in the higher professional education: individual, technological and environmental factors. In International Conference of Reliable Information and Communication Technology (pp. 840-849). Springer, Cham.

Rogers, E. M. (2010). Diffusion of innovations. Simon and Schuster.

Ruivo P, Oliveira T and Neto M (2012) ERP post-adoption: Use and value–an empirical study on Portuguese SMEs. Knowledge and Technologies in Innovative Information Systems 67–81. Springer Berlin Heidelberg.

The University of New South Wales Australia. (2016). Electronic recordkeeping. Retrieved April 12, 2019 from https://www.recordkeeping.unsw.edu.au/recordkeeping/electronicrecordkeeping.html

Tornatzky, L., & Fleischer, M. (1990).The process of technology innovation. Lexington, M.A: Lexington Books.

Umi Asma' Mokhtar & Zawiyah Mohammad Yusof. (2009). Polisi pengurusan rekod elektronik dalam sektor awam di Malaysia. Jurnal Teknologi Maklumat & Multimedia, 7, 51-67.

Vankatesh, V., Davis, F., & Morris, M. (2007). Dead or alive? The development trajectory and future adoption research. Journal of Association for Information Systems, 8(4), 267-286.

Youssef, A. B., Hadhri, W., & Maherzi, T. (2015). Adoption of cloud computing in emerging countries: the role of the absorptive capacity. Systemes d'information management, 20(4), 117-142.

Yusof, M. M., Kuljis, J., Papazafeiropoulou, A., & Stergioulas, L. K. (2008). An evaluation framework for Health Information Systems: human, organization and technology-fit factors (HOT-fit). International journal of medical informatics, 77(6), 386-398.

Zhu, K., Kraemer, K., & Xu, S. (2003). Electronic business adoption by European firms: A cross-country assessment of the facilitators and inhibitors. European Journal of Information Systems, 12, 251-268.