



LITERATURE REVIEW ENTERPRISE INFORMATION SYSTEM USER SATISFACTION: DATA QUALITY ANALYSIS, INFORMATION QUALITY, AND SERVICE QUALITY

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Abstract: Previous research is very important in scientific research or article. The relevant riset serves to strengthen the theory and the nagging of relationships or influences between variables. This article reviews factors that affect human resource enterprise information system user satisfaction, namely: Quality of Service, Quality of Information, and Quality of Systems, a literature study of Human Resource Management. The purpose of writing this article is to build a hypothesis of influence between variables for use in future research. The results of this literature review article are 1) Service Quality affects Human Resource Enterprise Information System User Satisfaction; 2) Information Quality affects Human Resource Enterprise Information System User Satisfaction, and 3) System Quality affects Human Resource Enterprise Information System User Satisfaction.

Keywords: Human Resource Enterprise Information System, Quality of Service, Quality of Information and Quality of Systems

INTRODUCTION

Background Problems

Every student, Strata 1, Strata 2, and Strata 3 must conduct research in the form of a thesis or dissertation. Likewise, lecturers, researchers, and other functional personnel are active in conducting research and making scientific articles for publication in scientific journals.

Scientific work is a condition for students to complete their studies at most universities in Indonesia. This provision applies to all levels of education, namely thesis strata one (S1), Thesis strata two (S2) Dissertation third (S3).

Based on empirical experience, many students and authors have difficulty in finding supporting articles for their scientific work as previous research or as relevant research. Relevant articles are needed to strengthen the theory that is researched, to look at relationships or influences between variables, and to build hypotheses. This article discusses the influence of Service Quality, Information Quality, and System Quality on Human Resource Enterprise

Information System User Satisfaction, a literature review study in the field of Human Resource Management (Hapzi, 2016).

Problem Formulation.

Based on the background, it can be formulated the problems that will be discussed to build hypotheses for further research, namely:

- 1) Does The Quality of The Service affect the User Satisfaction of Human Resource Enterprise Information System?
- 2) Does Information Quality affect Human Resource Enterprise Information System User Satisfaction?
- 3) Does System Quality affect Human Resource Enterprise Information System User Satisfaction?

LITERATURE REVIEW

Human Resource Enterprise Information System

Executive Information Systems (EIS) is one type of information system management to facilitates and support the information and decision-making needed by senior executives by providing easy access to information both from within and from outside that is relevant to the organization's objectives. It is usually considered a form of decision support system (SPK). EIS is a technology platform that can unite all information from various parts into one (single) information logically. So, enterprises (companies/organizations) can get the information needed easily (Giacheti, 2011).

EIS is a business intelligence system that covers all parts of the corporate organization and does not only limit it to executives. This system is generally applied in the form of web applications that facilitate the exchange of information (portals), which have several advantages, among others: integrating internal and external applications, customizable, distributing information effectively, encouraging collaboration, providing tools for data visualization, and equipped with search engines (Olson, 2009).

EIS emphasizes the appearance of images and interfaces that are easy to use by users. EIS offers powerful reports and browsing capabilities. In general, EIS is one of those *platforms* that helps executives analyze, compare, and highlight important variables so they can monitor performance and identify opportunities and problems. EIS and data warehouse technologies are converging on the market in recent times, the term EIS has lost popularity in favor of business intelligence (with sub-areas of reports, analytics, and digital dashboards). One example is the implementation of *the Enterprise Information System* in the form of a *Human Resource Information System* (HRIS), which is used in companies to help manage and process processes, data, and transactions related to human resources.

The state-of-the-art information system is expected to provide convenience and accurate information for companies so that they can compete with other larger companies. To meet these demands, companies need to implement an integrated information technology system that is related to the input process, and data processing that is connected to each other. So that it can speed up the process with optimal results and benefit all lines of the company (Buanawati, 2019).

Human Resources Information System (HRIS) is a system that is arranged to get timely and relevant information in the process of making decisions on matters related to human resources (Handoko, 2019). It is expected that HRIS consisting of technology is able to automate work in terms of recording or data collection related to human resources in order to help employees work and reduce errors and speed up work completion time (Panjaitan, 2017). *The Human Resource Information System (HRIS)* can be defined as an integrated system used to collect, store and analyze information about human resources in an organization

consisting of databases, application computers, hardware, and software necessary to collect, record, store, manage, provide, present and manipulate data for functions. Man (Hendrickson, 2003).

To be able to assess the successful implementation of a system can be seen from how the system can meet the company's business needs and provide benefits for the company. The successful implementation of the system is inseparable from how the system can be operated and provide convenience for its users, to provide satisfaction for its users. User satisfaction reflects how much trust users have in an information system provided to meet their information needs (Buanawati, 2019).

The objectives to be achieved in this study are 1). to find out the quality of Human Resource Information System services on user satisfaction; 2). to find out the quality of the Human Resource Information System at user satisfaction; 3). to find out the quality of Human Resource Information System information on user satisfaction.

An information system is a set of interconnected components that collect, process, store, and distribute information to support the creation of satisfaction and supervision in organizations (Laudon and Laudon, 2000). DeLone and McLean 1992 proposed a framework for measuring the success of system information by distinguishing system quality, information quality, user satisfaction, usability, individual impact, and organizational impact. They also suggest a causal model measure its success. System quality and information quality, individually and together affect user satisfaction and usage. It also argues user satisfaction and use in interdependent mutual relationships are a direct antecedent of individual impact, which later also affects the impact of the organization. Of several models of successful testing of the application of an information system, the DeLone and McLean model (1992) received a lot of attention.

Since it was first published in 1992, this model has been widely validated and some of the validation results contributed to the improvement until finally the model was *updated* in 2003. Some researchers are trying to apply the model both the initial model and the updated model, including in the fields of education (e-learning), commerce (e-commerce), as well as other fields including the public sector conducted by Meruang et al (2018), Jaafreh (2017), Bahesa (2018), Yunis et al (2017), Pang et al (2019), Effendi (2020) and Hidayatullah et al (2020).

D&M IS Success Model (2003) has six dimensions, namely system quality, information quality, user satisfaction, the intensity of use, individual impact, and organizational impact. System quality and information quality are the first two dimensions in the D&M IS Success Model, where the quality of the system shows the quality of the product of its information system application and the quality of information shows the quality of the products produced by the information system application. Both qualities, determine the attitude of the wearer as the recipient of the information. The use of the system and its information will have an influence on the wearer and on the system. The influence on the wearer will determine the satisfaction of the wearer and the impact on the individual. The influence of his system will affect the impact of his organization. Then the theoretical framework shows that the quality of the system (*system quality*) and the quality of information (*information quality*) (*information quality*) which is represented by the usefulness (*usefulness*) of the system output obtained, can affect the level of use of the system concerned (*intended to use*) and user satisfaction (DeLone and Mclean, 1992).

Quality of Service

Service quality is defined in this study as an assessment that is perceived from the results of comparing user expectations to the services they receive. The research questionnaire was adapted from research conducted by Irfan (2019), referring to research conducted by

Delone and McLean (2003) with 3 items namely *Assurance*, *reliability*, and *Responsiveness*, and reused in another study by Hidayatullah (2020), Irfan (2019), and Saputro (2017).

Information Quality

Information quality measures the output quality of information systems, (Jogiyanto 2007a). Similar to the quality of the system, the quality of the information in question is the quality of information measured subjectively by the user which is hereinafter referred to as the quality of *perceived information quality* (Maulidi, 2016). The indicator used to replicate Hidayatullah's research (2020) consists of 4 measurement scales, namely completeness of the information (*completeness*), easy to understand (*ease of understanding*), the accuracy of information (*accuracy*), and relevant (*relevance*).

System Quality

System quality is used to measure the quality of the information system itself (Jogiyanto 2007a). That is, the quality of the system is the technical quality of that information system. System quality means the quality of a combination of hardware and software. DeLone and McLean (2003) explain that system quality is the performance of the system which refers to how well the hardware capabilities, software, policies, and procedures of the information system can provide information on the needs of users.

The quality of the system is measured subjectively by the user, so the quality of the system used is the quality of the perception system or *perceived system quality*. The indicator used replicates from Livari's research (2005) and is also used in other studies by Hidayatullah (2020) and Irfan (2019) consists of 7 measurement scales, namely: easy to learn, easily accessible, connected quickly, reliable, fast information, convenient to use and rapid facility improvement.

Table 1: Relevant previous research

No	Author (year)	Previous research results	Similarities with this article	Difference with this article
1	Mariyana et al (2019)	Quality of Service, Quality of Information & Quality of The System is positive and significant towards the user satisfaction of the Inaportnet application system at the Kesyahbandaran Office and the Banjarmasin Class I Port Authority.	Service Quality (Xx1), Information Quality & System Quality affect human resource enterprise information system user satisfaction	Differences in the focus of system usage objects
2	Rear (2020)	Quality of Service, Quality of Information & Quality of The system is positive and significant towards the satisfaction of individuals and the impact on the organization (Y2) of the SIAP financial examination application system at the Financial Audit Board of the Republic of Indonesia.	Service Quality (Xx1), Information Quality & System Quality affect human resource enterprise information system user satisfaction	Use impact variables on the organization (Y2).

3	Irfan (2019)	Quality of Service, Quality of Information & Quality of The system is positive and significant to the satisfaction of individuals and the impact of Net Benefit for the use of BRIVA payment system with variable <i>intervening</i> user satisfaction (using Delone and Mclean model) Net Benefit (Y2)	Service Quality (Xx1), Information Quality & System Quality affect human resource enterprise information system user satisfaction	Using net benefit impact variables or net gain (Y2).
4	Yunis (2017)	Quality of Service, Quality of Information & Quality of The system is positive and significant towards the satisfaction of individuals analyzing the successful implementation of the basic data information system (Dapodik) in coal Regency Elementary School using the success model of delone and Mclean information systems.	Service Quality (Xx1), Information Quality & System Quality affect human resource enterprise information system user satisfaction	Differences with the focused object of the system being studied.
5	Buanawati (2019)	Service quality and quality of the system are positive and significant to the satisfaction of Enterprise Resource Planning users	Service Quality (Xx1) & System Quality affect human resource enterprise information system user satisfaction	Use of Quality of Information in research conducted
6	Ningsih (2019)	Quality of Service, Quality of Information & Quality of The System is positive and significant towards user satisfaction in individuals, use (Y2) and Net Benefit (Y3) for analysis of Work Plan and Budget Information System Success (SIREKA) Using DeLone & McLean Model (Study at Universitas Brawijaya)	Service Quality (Xx1) & System Quality affect the user satisfaction of the Work Plan and Budget Information System (Sireka). Quality of Service, Quality of Information & Quality of Systems Positively Affects the Use (Intention) in The Work Plan and Budget Information System (Sireka (Y2). Quality of Service, Quality of Information & Quality of Systems Positively Affects the Use of Net Benefit (Y3) in Work Plan and Budget Information Systems (SIREKA (Y2). Usage (Y2) And User Satisfaction Have a Positive Effect on Net Benefit (Y3).	Using usage variables and Net Benefit (Y3, using the information system success model from Delone and McLean for the 2003 model.

*Variable: Human Resource Enterprise Information System User Satisfaction; Quality of Service; Information Quality; and System Quality .

RESEARCH METHOD

This study uses quantitative research methods, where researchers make a list of previously formulated questions related to assessment, attitudes, tastes, and perceptions of workers working from home using teleworking using remote systems. In this study, researchers used associative type research. Associative research is research that has the goal of knowing the relationship between two or more variables.

The method used in this study is the survey method. According to Lawrence in Sugiyono (2017) The survey method is a quantitative study wherein survey researchers use several questions that will be answered by respondents regarding opinions,

beliefs, characteristics of an object, and behavior that has been felt before by respondents. In this study *the Time Horizon* used was *cross-sectional*. According to Hardani (2020) *cross-sectional* or cross-place data is data collected at one point in time. *Cross-sectional* is used to observe respondents in the same period.

FINDINGS AND DISCUSSION

Based on the study of relevant previous theories and research, the discussion of *this literature review* article in the concentration of Human Resource Management is:

The Effect of Service Quality on the satisfaction of *Human Resource Enterprise Information System* users.

The results of research on human resource enterprise information system (HRIS) user satisfaction or the use of relevant systems found the simultaneous or joint influence of service and system quality on human resource enterprise information system user satisfaction (HRIS). The results are in accordance with research conducted by Mariyana et al (2019), Ningsih (2019), Wara (2020), as well as Irfan (2019) which shows that simultaneously the quality of service has a significant effect on user satisfaction. Respondents in this study empirically showed that the quality of service together had a significant effect on system user satisfaction.

Influence of Information Quality satisfaction of *human resource enterprise information system* users

The results of research on human *resource enterprise information system* (HRIS) user satisfaction or the use of relevant systems found the influence simultaneously or jointly of services and information quality on the satisfaction of human *resource enterprise information system* (HRIS) users. The results are in accordance with research conducted by Mariyana (2019), Hidayatullah (2021), Ningsih (2019), Yunis (2017), as well as Wara (2020) which shows that simultaneously the quality of information has a significant effect on user satisfaction. Respondents in this study empirically showed that the quality of information together had a significant effect on system user satisfaction.

The Effect of Quality System satisfaction system users of Human Resource Enterprise Information System.

The results of research on human resource enterprise information system (HRIS) user satisfaction or the use of relevant systems found simultaneous or joint influence for system quality on human resource enterprise user satisfaction. Information System (HRIS). The results are in accordance with research conducted by Banuwati (2019), Irfan (2019), Yunis (2017), Ningsih (2019), as well as Wara (2020) which shows that simultaneously the quality of the system has a significant effect on user satisfaction. Respondents in this study empirically showed that the quality of the system together had a significant effect on system user satisfaction.

Conceptual Framework

Based on the formulation of problems, theoretical studies, relevant previous research, and discussion of influences between variables, then in the research framework this article as below.

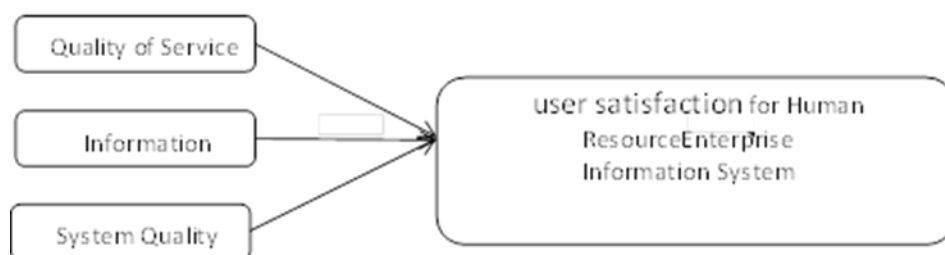


Figure 1: Conceptual Framework

Based on the conceptual framework image above, then: Service Quality, Information Quality, and System Quality affect human resource enterprise information system user satisfaction.

Aside from these three exogen variables that are against the satisfaction of Human Resource Enterprise Information System users, there are still other variables that can be affected, including:

- a) Use or *intention of use*: (Ningsih, 2019) (Hidayatullah (2020) conduct research on the impact of exogen variables on intervening variables and affected variables.
- b) *Net Benefit*: (Irfan, 2019) (Ningsih, 2019), using existing theories using the Delone and Mclean Updated Model, where one variable (Y2) is added to be able to see the influence and impact of the impact individuals on the impact of the company or net profit (Net Benefit).
- c) Conceptually and theories used by Delone and Mclean (2003), that variables of Service Quality, System Quality, and Information Quality, will exert a simultaneous influence on the individual impact represented by user satisfaction variables and usage frequency (Y2). Both user satisfaction and usage variables (Y2) will have an impact on the net benefit (Y3) variable.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on theory, relevant articles and discussions can then be summarized as follows: Service Quality affects the satisfaction of Human Resource Enterprise Information System; Users Information Quality affects the satisfaction of Human Resource Enterprise Information System users. System Quality affects the satisfaction of Human Resource Enterprise Information System users.

Suggestion

Based on the conclusion above, the advice in this article is that there are many other factors that can be influenced by the satisfaction of human *resource enterprise information system* users, apart from the individual aspects of users, user satisfaction can affect the impact. Organization, net benefit impact, or net profit that can be obtained by the company in the implementation of a system, therefore further study is still needed to find out what other factors can be affected by variables are researched in this article. Other factors such as organizational impact or net profit of the company, use (*intention*) other than the impact on individuals such as user satisfaction (*useful perceptiveness*) (Delone, 2003). In some studies, the variable use (*intention*) will have a different impact when the system used is a *mandatory* system (Seputro, 2017).

BIBLIOGRAPHY

Buanawati, Beti & Sopa, Haila & Harun, Nandang & Amalia, Rosaria. (2019). The Role Of

- Service Quality And Quality Of Enterprise Resource Planning (Erp) Systems In Improving User Satisfaction In The Padjadjaran University Environment. Dharmakarya. 8. 20. 10.24198/dharmakarya.v8i1.19564.
- David L Olson (University of Nebraska, USA) and Subodh Kesharwani (Indira Gandhi National Open University, India) Default Book Series. October 2009.
- Delone, William & McLean, Ephraim. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *J. of Management Information Systems*. 19. 9-30. 10.1080/07421222.2003.11045748.
- Ferra Maryana, 2019, The Effect Of System Quality And Information Quality On User Satisfaction (Survey On Users of Inaportnet Application System User Services Registered At The Kesyahbandaran Office And Port Authority Class I Banjarmasin).
- F Elmi, A Setyadi, L Regiana, H Ali - International Journal of Economic Research, 2016 Effect of leadership style, organizational culture and emotional intelligence to learning organization: On the Human Resources Development Agency of Law and Human Rights, Ministry of Law and Human Rights
- H. Jogyanto, Information Technology System Success Model. Andi Publisher, 2007.
- Handoko, R., & Irwan. (2019). "Web-Based Human Resource Management Application".
Journal of Computer and Information Technology Applications Students.
- Hendrickson, A. R. 2003. Human Resource Information Systems: Backbone Technology of Contemporary Human Resources. *Journal of Labor Research*, 24(3): 381-394
- Hidayatullah, Syarif & Khourouh, Umu & Windhyastiti, Irany & Patalo, Ryan & Waris, Abdul. (2020). Implementation of DeLone And McLean Information System Success Model against Zoom Application-Based Learning System During the Covid-19 Pandemic. *Journal of Technology*. 6. 45-53. 10.26905/jtmi.v6i1.4165.
- Ningsih, Vivi & Hakim, Abdul & Wanto, Alfi. (2019). Success of Work Plan and Budget Information System (SIREKA) Using DeLone & McLean Model (Study at Universitas Brawijaya). *Scientific Journal of Public Administration*. 5. 135-145. 10.21776/ub.jiap.2019.005.02.1.
- Panjaitan, F. (2017). "Implementation of Human Resources Information System Has An Effect on Career Development and Work Discipline and Its Impact on Service Quality (Survey on State Civil Apparatus in Medan City Government Agency)". Dissertation of Doctoral Program in Management Science Universitas Padjadjaran
- Ronald E. Giachetti, Design of Enterprise System, Theory, Architecture and Methods, CRC Press 2010
- Roni Yunis, Analysis of the Successful Implementation of The Basic Education Data Information System (DAPODIK) at The Coal Regency Elementary School, 2017.
- Saputro, Pujo Hari., A. Djoko Budiyo., & Alb. Joko Santoso. (2015). DeLone and McLean Model to Measure the Success of Pekalongan City E-government. *Scientific Journal of Informatics*, Vol. 2(1), pp. 1-8.
- Sugiyono. (2017). Research Methods of Education Quantitative, Qualitative, and R&D Approaches. Bandung: Alfabeta.