

Analysis of the Effect of Development of Hospital Management Information System Based on Knowledge Management on Employee Performance of Dr Wahidin Sudirohusodo, Makassar

Dewi Rizki Nurmala¹, Wibowo², Noer Bahry Noor³, Indrianty Sudirman³

¹Administration Section of RSUP Dr. Wahidin Sudirohusodo

²Center for Research and Development of Health Services Resources
Health Research and Development Agency of the Indonesian Ministry of Health, Jakarta.

³Postgraduate Program in Public Health, Hasanuddin University, Makassar

Corresponding Author: Dewi Rizki Nurmala

ABSTRACT

This study aims to (1) find out the relationship between knowledge management hospital management information system development on employee performance, (2) analyze the influence of knowledge management hospital management information system development on employee performance, (3) analyze the partial influence of home management information system development knowledge management based pain towards employee performance. The study uses quantitative methods with explanatory correlational designs. Sampling is done by purposive sampling method with a sample size of 94 people. Data were analyzed using Yates Correction Test and Multiple Regression. The results of the study show that there is a relationship between the development of knowledge management SIMRS and employee performance. There is the influence of the development of knowledge management SIMRS on employee performance. Only 2 of the 4 knowledge management SIMRS development variables have a partial effect on employee performance, namely Knowledge Transfer and Knowledge Application.

Keywords: Knowledge Management Process, SIMRS, Employee Performance

INTRODUCTION

Today the development of organizations in all sectors is increasingly leading to intense competition, competition in the form of services, ease of systems and product excellence continues to force every organization to make improvements and

improvements. Knowledge is considered to be an important weapon in achieving and maintaining an organization's competitive advantage (Rastogi 2000; Senge 2000). Knowledge has a very important role in the progress of a company / organization. Many companies increasingly recognize the importance of knowledge as one of the capital to achieve competitive advantage. The more advanced knowledge the company has, the higher the company's competitiveness. Knowledge creation in an organization cannot be done instantly, but it requires processes and enabler factors (supporting factors to make it happen). The stages of creating knowledge in organizations in the context of the application of knowledge management begin with enablers factors that will trigger a knowledge management process, which then results in organizational creativity, which in turn will have an impact on organizational performance (Lee & Choi, 2003). Available electronic resources are the first target for information seekers, faced with new challenges to provide relevant and timely information and come from many sources. In other words it is challenged to provide the entire spectrum of information, not only limited to explicit knowledge, so it is necessary to explore the concept of applying Knowledge Management in the work environment, including hospitals which are a very important part of a health system.

If the Information System is implemented well in the context of the Hospital, it will change the health care system over the next few decades to be more cost effective, prevent errors, and measurable public resources. Carl Davidson and Philip Voss (2003) say that actually managing knowledge is the way organizations manage their employees, and how long they spend on information technology. The existence of the Hospital Information System (SIRS) implemented by Dr. Wahidin Sudirohusodo Hospital has made the importance of knowledge continuously explored, processed, managed and developed continuously using information technology so that data, information and knowledge are more easily displayed and communicated and become a place for sharing between parts / unit within the Hospital. Moreover, with the Regulation of the State Minister for Administrative Reform and Bureaucratic Reform Number 14 of 2011 concerning Guidelines for Implementing Knowledge Management Programs that expect Ministries / Agencies and Regional Governments to actively participate in the implementation of Knowledge Management that can be utilized in policy formulation and benchmarking for the implementation of bureaucratic reform.

MATERIALS AND METHODS

Location and Design of Research

The study was conducted for 1 (one) month, namely the first Sunday of July 2014 to the third week of July 2014 was held at RSUP Dr. Wahidin Sudirohusodo Makassar.

Population and Samples

The population is all employees of RSUP Dr. Wahidin Sudirohusodo Makassar totaling 1,580 employees. The research sample amounted to 94 employees.

Method of collecting data

Primary data: data obtained by researchers for specific purposes in answering research problems (Malhotra, 2000). Primary data collection in this study was carried out

through the distribution of questionnaires prepared to all respondents.

Secondary Data: data collected for specific purposes other than research problems (Malhotra, 2000). Secondary data in the form of Profiles and Annual Reports and Performance Reports of Dr Wahidin Sudirohusodo Hospital Makassar.

Data analysis method

The method of data analysis in this study is descriptive statistics, namely the frequency distribution of measurement results of research variables and analytical statistics, namely the method of analyzing collective and separate contributions of two or more independent variables on variations in the dependent variable [Kerlinger and Pedhazur, 1973].

RESULTS AND DISCUSSION

Univariate analysis in this study was conducted on categorizing variables on respondents' answers regarding Knowledge Creation, Knowledge Storage / Retrieval, Knowledge Transfer and Knowledge Application, Development of RS Management Information Systems and Employee Performance. From the results of the univariate analysis, it was found that 94.7% of respondents thought Knowledge Creation was good as part of the Knowledge Management Process in the development of information systems even though there were still 5.3% of respondents who argued that Knowledge Creation was not good, this was confirmed by Mohanta, 2006 which states that some things that can improve performance are with Information Technology and Knowledge Management where of course there is a process of knowledge creation that is expected to continue to take place.

From the results of the univariate analysis it was found that 93.6% of respondents thought that Knowledge Storage was good as part of the Knowledge Management Process in developing information systems even though there were still 6.4% of respondents who thought Knowledge Storage was still not good,

knowledge storage and retrieval was very important in the development and refinement of a hospital SIM. The majority of Knowledge Transfer held by Respondents is in the Good category as part of the Knowledge Management Process in the development of information systems as many as 89 employees or as much as 94.7% while the respondents who are in the Poor category are only 5 employees or 5.3% of the total respondents.

The majority of knowledge applications owned by respondents are in the Good category as many as 91 employees or equal to 96.8% while the respondents who are in the category of Poor are only 3 employees or 3.2% of the total respondents. The development of the Hospital Management Information System owned by the majority of respondents is in the Good category as many as 88 employees or as much as 93.6% while the respondents who are in the Poor category are only 6 employees or 6.4% of the total respondents.

The majority of Employee Performance held by Respondents is in the Good category, as many as 87 employees or 92.6% while the respondents who are in the Poor category are only 7 employees or 7.4% of the total respondents. Bivariate analysis was conducted to determine the relationship between independent variables Knowledge Management Development of RS-based SIM with the dependent variable Employee Performance at Dr. RSUP Wahidin Sudirohusodo Makassar by conducting cross tabulations and statistical analysis using Chi Square by using a degree of confidence $\alpha = 0.05$.

The results of the Chi Square Test statistical analysis by looking at the value of the Fisher Exact Test about the relationship of the Development of RS SIM based on Knowledge Management based on Knowledge Creation on Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar obtained the value of $p(0,000) < \alpha(0.05)$. This shows that there is a relationship between the Development of RS SIM based on Knowledge

Management based on Knowledge Creation on Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar in 2014.

The results of the Chi Square Test statistical analysis by looking at the value of the Fisher Exact Test about the relationship of the Development of a Knowledge Management-based RS SIM based on Knowledge Storage on Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar obtained the value of $p(0,000) < \alpha(0.05)$. This shows that there is a relationship between the Development of Knowledge Management RS SIM based on Knowledge Storage on Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar in 2014.

The results of the Chi Square Test statistical analysis by looking at the value of the Fisher Exact Test about the relationship of the Development of RS SIM based on Knowledge Management based on Knowledge Transfer to Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar obtained the value of $p(0,000) < \alpha(0.05)$. This shows that there is a relationship between the Development of a Knowledge Management-based RS SIM based on Knowledge Transfer to RSUP DR. Wahidin Sudirohusodo Makassar in 2014.

The results of the Chi Square Test statistical analysis by looking at the value of the Fisher Exact Test about the relationship of the Development of RS Management based on Knowledge Management based on Knowledge Application on Employee Performance at RSUP DR. Wahidin Sudirohusodo Makassar obtained the value of $p(0,000) < \alpha(0.05)$. This shows that there is a relationship between the Development of a Knowledge Management-based RS SIM based on Knowledge Application to the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar in 2014.

The results of the Chi Square Test statistical analysis by looking at the value of the Fisher Exact Test about the relationship between the Development of Knowledge Management-based RS SIM to RSUP DR.

Wahidin Sudirohusodo Makassar obtained the value of $\rho (0,000) < \alpha (0.05)$. This shows that there is a relationship between the Development of Knowledge Management-based RS SIM on the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar in 2014.

Multivariate analysis was carried out to determine the Knowledge Management Development RS-based variables that influence the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar In 2014 used Multiple Regression Analysis. The probability value obtained is less than $p (0,000) < \alpha (0.05)$, which means that the overall variable is the Development of Knowledge Management-based RS SIM consisting of Knowledge Creation, Knowledge Storage / Retrieval, Knowledge Transfer and Knowledge Application, together (simultaneously) affect the Employee Performance of RSUP DR. Wahidin Sudirohusodo.

The partial test results (t-test) show that the Knowledge Creation variable has a value of $\rho (0.063) > \alpha (0.05)$ which means that the Development of a Hospital SIM based on Knowledge Management based on Knowledge Creation does not affect the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar partially. The Knowledge Storage / Retrieval variable Partial test result (t-test) shows the value of $\rho (0,332) > \alpha (0,05)$ which means that the Development of RS MIS based on Knowledge Management based on Knowledge Storage / Retrieval does not affect RSUP DR. Wahidin Sudirohusodo Makassar partially.

The results of the partial test (t-test) Knowledge Transfer variable shows the value of $\rho (0.024) < \alpha (0.05)$ which means the Development of an RS SIM based on Knowledge Management based on Knowledge Transfer has an effect on the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar partially. Partial test results (t-test) Knowledge Application variables show the value of $\rho (0.013) < \alpha (0.05)$ which means the

Development of RS MIS based on Knowledge Management based on Knowledge Application has an effect on the Employee Performance of RSUP DR. Wahidin Sudirohusodo Makassar partially.

The next analysis is the determination coefficient test obtained $R^2 = 0.495$ which can be interpreted that 49.5% of RSUP DR. Wahidin Sudirohusodo Makassar is influenced by the Development of an RS SIM based on Knowledge Management which consists of Knowledge Creation, Knowledge Storage / Retrieval, Knowledge Transfer and Knowledge Application while 50.5% can be influenced by other factors.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research that has been done, it can be concluded that there is a relationship between the Development of Knowledge Management-based RS SIM on the Performance of RSUP DR. Wahidin Sudirohusodo Makassar in 2014, Development of Knowledge Management-based RS SIM has an effect on RS Employee Performance, From the 4 variables of Knowledge Management Based on SIM SIM, only 2 have partial influence, namely Knowledge Transfer and Knowledge Application. It is expected that the Director of RSUP DR Wahidin Sudirohusodo Makassar to make the results of this study as a continuous step of improvement to improve the RS information system, this research can be used as basic data for further research related to improving employee performance and Hospital Information Systems.

ACKNOWLEDGEMENT

Thank you, the authors convey to the Head of the hospital management information system Dr. Wahidin Sudirohusodo Makassar who has provided an opportunity to write in the Journal, thanks also to the Head of the Research and Development Center for Health Services and Resources of the Indonesian Ministry of Health Research and Development and to all

parties has helped so that the writing of scientific articles can be published.

REFERENCES

- Acharyulu, G. V. R. K. 2011. Information Management in a Health Care System : Knowledge Management Perspective, International Journal of Innovation, Management and Technology, Vol. 2, No. 6, December 2011
- Alavi & Leidner, 1999. Knowledge Management Systems : Issues, Challenges and Benefits, Communication of the Association for Information Systems Vol 1, Article 7
- Alavi & Leidner, 2001. Review: Knowledge Management and Knowledge Management System: Conceptual Foundations and Research Issues, MIS Quarterly Vo. 25 No. 1, pp. 107-136/March 2001
- Amaliah Hastyanti Putri, Evaluasi Implementasi Knowledge Management System PT. Telekomunikasi Indonesia,
- Balan, Adina. Information and Knowledge Management – A Strategy for Perfroming Medical Services in The Informational Era, Univesity of Craiova.
- Bartel et al, 2005. *How Does Information Technology Really Affect Productivity? Plant – Level Comparison of Product Innovation, Process Improvement and Worker Skill*, National Bureau of Economic Research
- Bergendahl, Adam & Jensen, Martin, 2011. The Challenges of Collaborative Knowledge Management : Why Grassroots Technology Needs Help From The Top, KTH Industrial Engineering and Management, Stockholm, Sweden
- Bhatti et al, 2011. The Effect of Knowledge Management Practices on Organizational Performance : A Conceptual Study, African Journal of Business Management Vol. 5(7), pp 2847-2853, 4 April 2011
- Dessne, Karin, 2012. Supporting Knowledge Management with Information Technology The Significance of Formal and Informal Structures, School of Science and Technology, Orebro University
- Done, Adrian, 2011. Supply Chain Knowledge Management: A Conceptual Framework, IESE Business School, University of Navarra
- Farzandipour et al, 2011. Hospital Information Systems User Needs Analysis : A Vendor Survey, Journal of Health Informatics in Developing Countries
- Hoveida et al, 2012. Study of Relationship Between Knowledge Management Enablers and Process with Organizational Performance, Interdisciplinary Journal of Contemporary Research in Business. Vo. 4 No. 4 August, 2012
- Jati, Wahy Pramana, 2010. Peranan Sistem Informasi Manajemen dalam Meningkatkan Produktivitas Kerja pada PT. Jamsostek, Belawan, Medan. Fakultas Ekonomi Universitas Sumatera Utara
- Lee, Heeseok & Choi, Byounggu, 2003. Knowledge Management Enablers, Processes, and Organizational Performance, Division of Management Engineering Korea Advanced Institute of Science and Technology
- Lestari, Baiq. AH, 2007. Pengaruh Information Technology Relatedness Terhadap Kinerja Perusahaan dengan Knowledge Management Capability sebagai Variabel Intervening (Kajian Empiris pada Perusahaan Perbankan di Jawa Tengah), Program Pascasarjana Universitas Diponegoro, Semarang
- Mahdi et al, 2011. The Role of Knowledge Managemen and Knowledge Management in Sustaining Competitive Advantage within Organizations : A Review, African Journal of Business Management Vol. 5(23), pp 9912-9931, 7 October, 2011
- Mudjiati, Johanna, 2008. Studi Pengaruh Penggunaan Sistem Informasi terhadap Kinerja Karyawan Fakultas Ekonomi Universitas Diponegoro Semarang, Program Pascasarjana Universitas Diponegoro Semarang
- Ou, Carol X.J & Davidson, Robert M. Knowledge Management Problems, Causes, and Solutions : Junior Knowledge Workers Perspectives, Dept of Information Systems, Citi University of Hongkong, 11th Pacific – Asia Conference on Information Systems
- Kock, Jr & McQueen, Robert J. Gorupware Support for Organisational Learning: Fostering Knowledge Dissemination Through Process Improvement Groups, Dept. Of Management System, University of Waikato

- King, 2009. Knowledge Management and Organizational Learning, Annals of Information System 4, 2009
- Lee et al, 2010. An Analysis of Knowledge Management Mechanisms in Healthcare Portal, Journal of Librarianship and Information Science. 42(1), 20-44.
- Rahayu, Sri, 2013. Implementasi Pengaruh *Knowledge Management* Terhadap Kinerja Karyawan dan Kepuasan Pelanggan PT. Anugrah Tata Senthika, Media Mahardika Vol. 11 No. 3, Mei 2013
- Rollet, Herwig, Knowledge Management Processes and Technologies, Kluwer Academic Publisher, Boston/Dordrecht/London
- Rusuli et al, 2012. Knowledge Management Process at Malaysian University Libraries : A Review, The International Journal of Social Sciences, 15th October, 2012
- Pradana, Bayu Ilham, 2011. Hubungan antara Knowledge Management dan Organizational Learning serta Dampaknya pada Organizational Effectiveness, Program Pascasarjana Fakultas Ekonomi Universitas Brawijaya, 2011
- Razzaque, Anjum & Karolak, Magdalena, 2011. Knowlegde Management and Electronic Health Record Facilitate Clinical Support to Improve Management and Economics, IPEDR Vol. 3, IACSIT Press, Hong Kong
- Virny Lizy, Dessy (2009). Pengaruh Penerapan Sistem Informasi Dalam Meningkatkan Kinerja Karyawan (Studi Kasus Garuda Plaza Hotel), Master Thesis, BINUS
- Yahfizham,_____. Penerapan Teknologi Berupaya Meningkatkan Produktivitas Sumber Daya Manusia, <http://www.foxitsoftware.com>
- Zwain et al, 2012. Knowledge Management Process and Academic Performance in Iraqi HEIs: An Empirical Investigation, International Journal of Academic Research in Business and Social Sciences, June 2012, Vo. 2 No. 6, ISSN : 2222-6990

How to cite this article: Dewi Rizki Nurmala DR, Wibowo, Noor NB et.al. Analysis of the effect of development of hospital management information system based on knowledge management on employee performance of Dr Wahidin Sudirohusodo, Makassar. International Journal of Science & Healthcare Research. 2019; 4(1): 268-273.
