# Analysis Of Information System Implementation Electronic Medical Record With Technology Acceptance Model

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*Abstract. At the Health Center an electronic medical record information system (RME) is used in the department registration, poly general, poly elderly, poly tooth, poly MCH, room integrated, room mtbs, psychology, physiotherapy, laboratory and nutrition. Perceived use describes the extent to which they can accept A technology specifically system record medical electronic (RME). Objective study This For analyze how much the perception and use of the electronic medical record information system (RME), how simple and easy it is to implement an electronic medical record information system (RME). And how much big enhancement performance can achieved blessing exists system information That, so analysis with the Technology Acceptance Model method was used . The type of research that used is descriptive analytic. Collection And study with use, observation And questionnaire. The subject population in this study were 30 officers who use information systems RME. The object of this study is the implementation of the Electronic Medical Record Information System. Results between independent variables and dependent variables on system users RME information did not have a significant effect, namely 0.813 No according to decision. Simple linear regression test where Ho is greater than 0.05 then the hypothesis beginning rejected that No There is influence between variable free to variable bound in user RME information system.*

*Keywords: Evaluation system, RME, TAM.*

**Abstrak**. Di Puskesmas digunakan sistem informasi rekam medis elektronik (RME) di bagian pendaftaran, poli umum, poli lansia, poli gigi, poli KIA, ruangan terpadu, ruangan mtbs, psikologi, fisioterapi, laboratorium dan gizi. Penggunaan yang dirasakan menggambarkan sejauh mana mereka dapat menerima teknologi khususnya sistem rekam medis elektronik (RME). Tujuan penelitian ini Untuk menganalisis seberapa besar persepsi dan penggunaan sistem informasi rekam medis elektronik (RME), seberapa sederhana dan mudahnya penerapan sistem informasi rekam medis elektronik (RME). Dan seberapa besar peningkatan kinerja yang dapat dicapai berkat adanya sistem informasi tersebut, maka digunakan analisis dengan metode Technology Acceptance Model. Jenis penelitian yang digunakan adalah deskriptif analitik. Pengumpulan dan studi dengan menggunakan, observasi dan angket. Populasi subjek dalam penelitian ini adalah 30 petugas yang menggunakan sistem informasi RME. Objek penelitian ini adalah implementasi Sistem Informasi Rekam Medis Elektronik. Hasil antara variabel bebas dan variabel terikat terhadap pengguna sistem informasi RME tidak berpengaruh signifikan yaitu 0,813 Tidak sesuai keputusan. Uji regresi linier sederhana dimana Ho lebih besar dari 0,05 maka hipotesis awal ditolak yaitu Tidak Ada pengaruh antara variabel bebas terhadap variabel terikat pada pengguna sistem informasi RME.

**Kata kunci**: Sistem evaluasi, RME, TAM.

## INTRODUCTION

Development technology And system information electronic in Indonesia the more rapidly And cover almost all fields, including the health sector. Puskesmas is the implementation unit service technician health regency/city Which responsible for organizing development health in a work area. Puskesmas as part of the health elements that play a role in the field of health effort facilities that organize health service activities for interest public (PEMENKES, 2004). Every means service health must organizes medical records", while according to medical records are files that contain records and documents regarding patient identity, examination, treatment, actions and other services given to patients (PEMENKES, 2008). Electronic medical records can be accessed by computer or system electronic from something network, with objective main provide or improve care and health services that are efficient and integrated (Mulyono et al., 2020). Electronic Medical Records can be accessed by computer from a network with the main purpose provide or increase maintenance as well as service health Which efficient And integrated (Hudiyani et al., 2018). record medical electronic (record medical computer-based) is warehouse electronic storage of information regarding health status and health services provided obtained patient throughout his life, stored such until can serve various user valid record (Ingber et al., 2013).

Source Power Which owned by company like capital, method And machine No Can provide optimum results if not supported by human resources who have optimum performance

(Tahir et al., 2019). For this reason, employee HR capabilities must be empowered through training, education And development. Management HR according to (Setiawansyah et al., 2020).

Trust enhanced Technology Acceptance Model , which examines the relationship between variables TAM And trust. Modification TAM other that is Trusts and risk in Technology acceptance Model (TRITAM) Which use variable trust And risk together variable TAM (Ashari, 2015). Model TAM introduced process influence social consists from norm subjective, imaging, volunteerism And experience. Process cognitive instrumental Also discussed, like relevance work, quality results and demonstrable results, TAM2 experienced the addition of theory builder variable that is process influence social And process instrument cognitive.

The information system has a menu display that simplifies the patient registration process access user as well as produce output report recapitulation visit patient take care road (Arizqi, 2019). Officer registration (users) only can inputs data patient, register, And manage recapitulation patient visits, while the head of the medical record section (admin) is given full access rights, including adding a user , changing username and password , adding a list of doctors, and owning authority report data from system information to clinic leader an electronic medical record information system (RME) is used in the department registration, poly general, poly elderly, poly tooth, poly MCH, room integrated, room mtbs, psychology, physiotherapy, laboratory and nutrition. There are 24 computers connected to the medical record information system electronic (RME) And officer Which use system information record medical electronic (RME) There is 30 officer. Objective study This For know And measure how much big perception And the usefulness of the electronic medical record information system (RME), how simple and easy it is to implement electronic medical record information system (RME) implemented and how much the performance increase can achieved blessing exists system information.
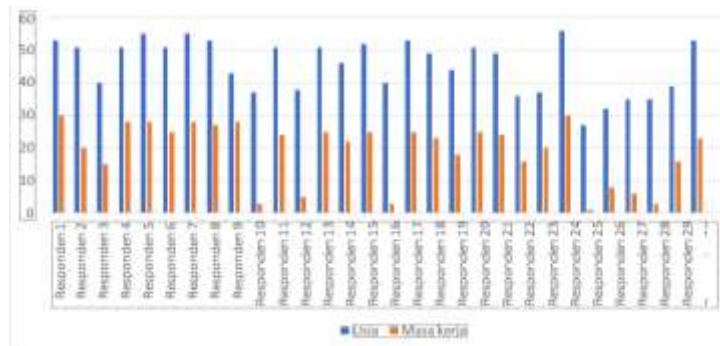
**METHOD**

Method study Which used is method descriptive analytic Study This use design cross sectional on moment collection data between variable free And variable bound taken at the same time using a questionnaire. The research was conducted over the months January 2020 took place . Data collection techniques used observation And questionnaire. Population subject

on study This is 30 officer Which use system information record medical electronic (RME) object in study This is application system information record electronic medical in Center

## RESULTS AND DISCUSSION

The electronic medical record information system (RME) is used in the registration section, general poly, elderly poly, dental poly, MCH poly, integrated room, mtbs room, psychology, physiotherapy, laboratory and nutrition. There is 24 computer, Which connected with system information record medical electronic (RME) And officer Which use system information record medical electronic (RME) There is 30 officer. Device computer Which spread parts service the connected with use Local Area Network (LAN) network . All computer equipment in each service section functioning health with Good.

With sample as much 30 respondent done deployment questionnaire to 30 respondent And questionnaire return with total 30, then rate respondent 100% worthy For analyzed. From 30 respondent among them There is as much 24 respondent manifold sex Woman And 6 respondent manifold sex man. The percentage of the characteristics of the number of respondents based on male sex is 20% And Woman by 80%.



Picture 1. Chart percentage age And period Work

Analysis variable bound to use system information record medical electronic needed criterion or score ideal as divider in calculation level agreement respondent. For count criterion data Which needed is mark maximum each items questions, the number of questions and the number of respondents. The maximum value on each item in the question in the questionnaire used in this study was 5, the number of questions in the questionnaire was in in study This is 11 question And amount respondent on study This amount 30 person. The ideal criterion or score for the dependent variable is Criterion = 5x11x30 = 1.650. Criteria or the ideal score for the dependent variable is 1.650. The criterion value of 1,650 will be used as divider on

calculation level agreement respondent. Before count level respondent's agreement, the researcher made the results of the recapitulation of the answer scores of each item question Which Already collected with use questionnaire. In the table the there is the total score of the answers to each question and below it is also the percentage of each each of these questions. The recapitulation of the results of the respondent's answer score can be seen in table 1 Total Score Answer and Percentage variable bound.

Table 1. Results recapitulation score respondent total score answer

| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Total Score |
|----------|----|----|----|----|----|----|----|----|----|----|----|-------------|
| Total | 134 | 133 | 134 | 132 | 130 | 131 | 133 | 132 | 120 | 130 | 122 | **1431** |

Level agreement respondent to user system information record medical electronic Which have score highest is items question number 1 And 3. For level agreement responden to users of the Electronic Medical Record Information System which has the lowest score is Question item number 9 is one respondent in the nutrition section with a bachelor's degree aged 53 years with 27 years of service. The total score for the dependent variable is 1,431. The figure is located in lower number criterion Which should, that is 1,650. Based on total score Which obtained, researcher calculating the level of approval for the use of the electronic medical record information system at the Health Center Limestone I with share total score that is 1,431 with criterion or score ideal that is 1,650. Following method calculation level agreement respondent. Level agreement respondent = 1,431 x 100% = 1,650 =0.87 x 100% = 87%. After calculating the level of consent of the variable respondents bound to system information record medical electronic as big 87%.

Analysis variable free to use system information record medical electronic needed criterion or score idealas divider in calculation level agreement respondent. For count criterion data Which needed is mark maximum each items question, amount questions and the number of respondents. The maximum value for each item on the questions in the questionnaire Which used in study This is amount question in questionnaire in in study This is 11 question And amount respondent on study This amount 30 person. Criterion or score ideal For variables convenience is criterion = 5x11x30 = 1,650. After counted, is known that criterion or score ideal For variables free is 1,650. Mark criterion as big 1,650 the will used as a divider in the calculation of the respondent's level of agreement. Before counting respondent's level of agreement, the researcher made a recapitulation of the score answers from each collected question items with using a questionnaire.

Table 2 Results of Respondent's Score Recapitulation Total Score Answer And Presentation Free Variables

| Question | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | Total Score |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| Total | 104 | 106 | 115 | 107 | 126 | 129 | 131 | 123 | 115 | 123 | 118 | **1297** |

Level agreement respondent to user system information record medical electronic Which having the highest score is question item number 18. For the level of respondent's agreement to users of electronic medical record information systems that have the lowest score is question item number 12, namely there were 7 respondents in the nutrition, kia, registration, and general polyclinic sections. The total score for the independent variables is 1297. This figure is below the criterion number should, that is 1,650. Based on total score Which obtained, researcher count level agreement use of the electronic medical record information system by dividing the total score that is 1297 with criterion or score ideal that is 1650. Level agreement respondent $= \frac{1297}{1650} x$ 100% = 0.79 x 100% = 79%. After done calculation level agreement respondent variable free against the system record information medical electronic as big 79%.

The influence between the independent variable and the dependent variable is given to 30 respondents employees of the Health Center 1. To determine whether there is influence between the independent variables to variable bound use technique analysis regression linear simple.

Method taking decision test regression linear simple that is If Sig more big from 0.05 so Ho is rejected. If Sig is less than 0.05 then Ho is accepted. The hypothesis in this study is Ho = there is no perceptual influence between the independent variables on the dependent variable with system users electronic medical record information. Ha = there is influence between the independent variables on the dependent variable with users of electronic medical record information systems. Simple linear regression test using SPSS can seen on Table 3.

Table 3 Regression Test linear Simple

**ANOVAᵃ**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1.460 | 1 | 1.460 | .059 | .813ᵇ |
| | Residual | 221.449 | 9 | 24.605 | | |
| | Total | 222.909 | 10 | | | |

a. Dependent Variable: Agresivitas
b. Predictors: (Constant), Religiusitas

Output value (F) count = 0.059 with a significance level of 0.813 > 0.05, then the regression model can be used to predict the independent variable or in words otherwise there is no effect (rejected) of the independent variable (X) on the dependent variable (Y). The magnitude of the value correlation can seen on Table 4

Table 4 Regression Test Simple Linear

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .081ᵃ | .007 | -.104 | 4.960 |

a. Predictors: (Constant), Religiusitas

The value of the correlation or relationship (R) is 0.081. From the output is obtained coefficient determination (R Square) as big 0.007, Which contain understanding that influence variable independent of the dependent variable is equal to 0.7%. According to Spradley (Sugiyono, 2015) said that analysis is an activity to look for a pattern other than that analysis is a way think Which related with testing in a manner systematic to something For determine part, the relationship between the parts and the relationship to the whole. Analysis is an attempt to parse something problem or focus study become parts (decomposition) so that the arrangement/order of the form of something being described is clearly visible and therefore can be more detailed the meaning is clearly understood or the situation is more clearly understood.

The results of data collection are in the form of a total score of each answer item on the questionnaire variables convenience from 30 respondent compared to with criterion or score ideal. Level agreement respondent in Public health center Limestone I as big 87%. And results study show that the results of the calculation of perception have no effect (rejected) on the independent variable dependent variable. Mark significant at 0.813 which means Ho is rejected because the value of 0.813 is greater than 0.05. User electronic medical record information system makes it easy for users to complete their jobs. Based on the results of the calculation of the level of approval of users of the medical record information system electronic reach 87%.

The results of data collection are in the form of a total score of each answer item on the questionnaire independent variables from 30 respondents compared with the criteria or ideal score. Consent level respondent in Public health center Limestone I as big 79%. Results study show that results calculation perception does not exist influence (rejected) variable free to the dependent variable. Mark significant as big 0.813 Which means Ho rejected Because mark 0.813 more big from 0.05. User electronic medical record information system makes it easy for users to complete their jobs. Based on the results of the calculation of the level of approval of users of the medical record information system electronic reach 79%.

Test the effect of the independent variables on the dependent variable which was carried out in this study The significant obtained is 0.813. The value of 0.813 is greater than 0.05, meaning there is no effect a significant difference between the independent variables and the dependent variable in the use of information systems record medical electronic in Public health center Limestone I. hypothesis in study This Which state No there is an influence between the independent variables on the dependent variable on the use of the record information system electronic medicine  was rejected because it was supported by the results of the same research Already done.

**CONCLUSION**

Analysis of independent variables in the form of subjective norms, description, job relevance, quality results, the appearance of the results and for the dependent variable in the form of perceived usefulness, perceived convenience use, user interest, usage behavior towards users of the medical record information system electronics at  Center is the dependent variable in the form of perceived usefulness, perception ease of use, user interest, usage behavior towards information system users record medical electronic in Public health center Limestone I as big 87%. In accordance with hypothesis in research that is more than 80%, then the initial hypothesis is accepted because the level of the dependent variable on users of electronic medical record information systems by 87%. The independent variable in the form of the norm subjective, description, job relevance, quality of results, appearance of results to system users information record medical electronic in Public health center Limestone I as big 79%. No in accordance with hypothesis in research that is more than 80%, then the initial hypothesis was rejected because of the level of independent elent variables to users of electronic medical record information systems by 79%. Between independent variables and dependent variable on the

user of the electronic medical record information system does not have a significant effect, namely 0.813 Not in accordance with the decision. Linear regression test simple Where Ho more big from 0.05 so hypothesis beginning rejected that No There is influence between independent variable on the dependent variable in the user of the electronic medical record information system in Public health center Limestone I.

**REFERENCE**

Arizqi. (2019). Implementasi Model Modifikasi Technology Acceptance Model (TAM) Pada Sistem Informasi Akademik (SIA) Di Universitas Swasta Kota Semarang Jawa Tengah. *Jurnal Manajemen Teknologi*, *18*(2), 138–155. Https://Doi.Org/10.12695/Jmt.2019.18.2.5

Ashari. (2015). *PENERAPAN METODE TIMES SERIES DALAM SIMULASI FORECASTING PERKEMBANGAN AKADEMIK MAHASISWA Ashari Program Studi Teknik Informatika , STMIK AKBA Abstrak.*

Hudiyani, A., Aspan, & Yana, N. F. (2018). Peran Tour Agency Orangutan Journey Dalam Peningkatan Kunjungan Wisatawan Di Taman Nasional Tanjung Puting Kabupaten Kotawaringin Barat. *Magenta*, *7*(1), 35–42.

Ingber, D. E., Kielty, C. M., Sherratt, M. J., Shuttleworth, C. A., Amadi, O. C., Steinhauser, M. L., Nishi, Y., Chung, S., Kamm, R. D., Mcmahon, A. P., Lee, R. T., Farahat, W. A, Wood, L. B., Zervantonakis, I. K., Schor, A., Ong, S., Neal, D., Kamm, R. D., Asada, H. H., … Cell, S. L. (2013). Contributions Des Recherches En Mécanobiologie À La Compréhension Des Mécanismes De La L . T . R . En Ostéopathie. *Journal Of Biomechanics*, *25*(5), 128. Http://Dx.Doi.Org/10.1016/J.Ceb.2013.06.002%5Cnhttp://Dx.Doi.Org/10.1016/J.Diff.2 013.02.003%5Cnhttp://Dx.Doi.Org/10.1016/J.Biomaterials.2012.10.036%5Cnhttp://Dx. Doi.Org/10.1016/J.Jbiomech.2010.05.002%5Cnhttp://Dx.Doi.Org/10.1016/J.Crhy.2009. 10.003%5Cnhttp

Mulyono, S., Syafei, W. A., & Kusumaningrum, R. (2020). Analisa Tingkat Penerimaan Pengguna Terhadap Aplikasi SIMPUS Dengan Metode Technology Acceptance Model (TAM). *JOINS (Journal Of Information System)*, *5*(1), 147–155. Https://Doi.Org/10.33633/Joins.V5i1.3277

Setiawansyah, S., Sulistiani, H., & Saputra, V. H. (2020). Penerapan Codeigniter Dalam Pengembangan Sistem Pembelajaran Dalam Jaringan Di SMK 7 Bandar Lampung. *Jurnal Coreit: Jurnal Hasil Penelitian Ilmu Komputer Dan Teknologi Informasi*, *6*(2), 89. Https://Doi.Org/10.24014/Coreit.V6i2.10679

Tahir, T. Bin, Rais, M., Hs, M. A., Studi, P., Elektro, T., Teknik, F., & Khairun, U. (2019). *Aplikasi Point OF Sales Menggunakan Framework Laravel Point OF Sales Appilaction Using Laravel Framework.* *2*(2), 55–60.