



EVALUATION OF THE IMPLEMENTATION OF ELECTRONIC MEDICAL RECORDS (EMR) USING THE HOT-FIT METHOD

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ABSTRACT

Implementing Electronic Medical Records (EMR) is a strategic step in improving the efficiency and quality of health services in hospitals. So it is necessary to evaluate the implementation of EMR using the HOT Fit method as a complete solution that best suits the difficulties or limitations currently existing at the Aminah Blitar Islamic Hospital. This research aims to analyze the influence of each variable on the implementation of EMR at the Aminah Blitar Islamic Hospital. The design of this research is a quantitative observational analytic type with a cross-sectional approach. The population of this study is 151 professional pemberi asuhan (PPA) using EMR. This research uses a proportional random sampling technique. The sample size was determined using the Krejcie and Morgan table and a sample of 108 professional pemberi asuhan (PPA) using EMR was obtained. The research results show that Service Quality has an effect on User Satisfaction with a significance value of <0.05 , namely 0.000. Service Quality influences the Environment with a significance value of <0.05 , namely 0.000. User satisfaction does not affect net benefit, with a significance value of > 0.05 , 0.357. Environment influences Net-Benefit with a significance value of <0.05 , namely 0.000. Service Quality mediated by User Satisfaction has no effect on Net-Benefit with a significance value of > 0.05 , namely 0.325. Service Quality with environmental mediation has an effect on Net-Benefit with a significance value of > 0.05 , namely 0.000000. So it can be concluded that the presence of professional and reliable IT personnel supported by government and hospital policies influences the optimal implementation of EMR at the Aminah Blitar Islamic Hospital.

Keywords: evaluation; electronic medical record; HOT fit

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INTRODUCTION

The implementation of Electronic Medical Records (EMR) is a strategic step in improving the efficiency and quality of health services in hospitals. The implementation of EMR in 2021 has also not met the target. The percentage of hospitals implementing EMR in 2021 was targeted at 40%, only 21.39% or 123 hospitals were achieved (Rifki et. al., 2023). Recorded in September - November 2024 In 2024, the EMR achievement of Aminah Blitar Islamic Hospital increased in September - October and in November remained at 80% of the 100% EMR target. The data refers to the achievements of the hospital in SatuSehat, that the data integration stage of RSI Aminah Blitar has reached 13 stages out of a total of 15 stages listed in SatuSehat. Where the two stages that have not been carried out are the allergy intolerance point and the treatment statement point, this point has not been integrated because the existing data does not match the data needed in SatuSehat and continues to be improved.

Therefore, it is necessary to evaluate the implementation of RME with the HOT Fit method as a complete solution that best suits the difficulties or limitations that currently exist at the Aminah Blitar Islamic Hospital. HOT-Fit not only focuses on the system components that are evaluated themselves, but also on additional supporting components that make this model suitable for use in research to produce comprehensive

recommendations for application improvement and development (Tawar et al, 2022). The purpose of this research is to analyze the influence of each variable on the implementation of RME at Aminah Blitar Islamic Hospital.

METHOD

The design of this study is a quantitative observational analytical type with a cross-sectional approach. The population of this study was 151 Profesional Pemberi Asuhan (PPA). The sample size was determined using the Krejcie and Morgan table so that a sample of 108 PPA was obtained. Then using the proportional random sampling technique. The independent variables of this study are human, organization, and technology. The dependent variable is a net benefit. The questionnaire in this study used a Likert scale with a five-point assessment then continued with the results of the validity and reability. The results of the validity test obtained a significance value of questions no.1-22 of 0.000 which means valid. The results of the reliability test obtained a Cronbach alpha value of 0.967, where the value > 0.6 so it can be concluded that the questionnaire is said to be feasible. This study uses path analysis where the calculation process is assisted by Statistical Product and Service Solutions (SPSS).

RESULT

Table 1.
Respondent characteristics based on age (n=108)

Age	f	%
17 - 25	86	79,6
26 - 35	18	16,7
36 - 45	2	1,9

Based on the table 1, it is known that the majority of respondents are aged 17 – 25 years, namely 86 respondents (79.6%).

Table 2.
Respondent characteristics based on gender (n=108)

Gender	f	%
Male	29	26,9
Female	79	73,1

Based on the table above, it is known that the majority of respondents are female, namely 79 respondents (73.1%).

Table 3.
Respondent characteristics based on education (n=108)

Education	f	%
D3	44	40.7
D4	4	3.7
S1	55	50.9
S2	5	4.6

Based on the table above, it is known that the majority of respondents have S1 education, namely 55 respondents (50.9%)

Table 4.
Respondent characteristics based on profession (n=108)

Profession	F	%
Nurse	69	63,9
Doctors	20	18,5
Midwives	10	9,3
Others	9	8,3

Based on the table 4, it is known that the majority of respondents have S1 education, namely 69 respondents (63,9%)

Table 5.
Respondent characteristics based on length of service (n=108)

Length of service	f	%
New length of service (< 6 years)	73	67,6
Medium length of service (6-10 years)	20	18,5
Long length of service (> 10 years)	15	13,9

Based on the table 5, it is known that the majority of respondents have a length of service new work (< 6 years), namely 73 respondents (67.6%)

Table 6.
Analyze the influence of service quality on user satisfaction

R Square	Coefficient	T Calculate	P-Value	Conclusion
0,533	0,730	11,004	0,000	Hypothesis Accepted

Based on the table 6, it is known that Service Quality has an effect on User Satisfaction with a significance value of <0.05, which is 0.000. The value of R square is 0.533, this shows that the contribution of service quality to user satisfaction is 53.3%.

Table 7.
Analyze the influence of Service Quality on the Environment

R Square	Coefficient	T Calculate	P-Value	Conclusion
0,642	0,801	13,781	0,000	Hypothesis Accepted

Based on the table 7, it is known that Service Quality has an effect on the Environment with a significance value of <0.05, which is 0.000. The value of R square is 0.642, this shows that the contribution of the influence of Service Quality on the Environment is 64.2%.

Table 8.
Analyzing the influence of User Satisfaction and Environment on the Net-Benefit

Hypothesis	R Square Adjusted	Coefficient	T Calculate	P-Value	Conclusion
User Satisfaction on to Net-Benefit	0,750	0,075	0,925	0,357	Hypothesis Rejected
Environment on to Net-Benefit		0,060	0,807	0,000	Hypothesis Accepted

Based on the table 8, it is known that User Satisfaction does not affect Net-Benefit with a significance value > 0.05, which is 0.357. While the environment influence on Net-Benefit with a significance value <0.05, which is 0.000. The value of R square adjusted for both is 0.750 or a contribution of 75%.

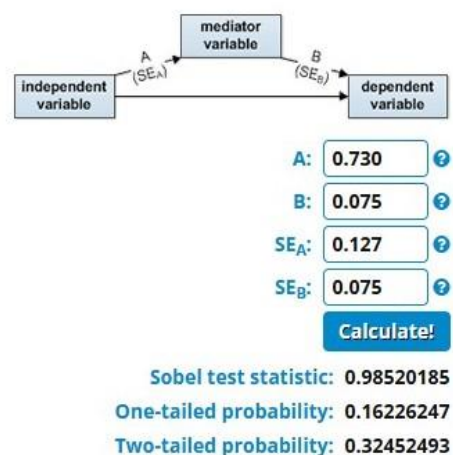


Figure 1. Analyzing the influence of Service Quality on Net Benefit with User Satisfaction mediation.

Based on the figure 1, it is known that Service Quality is mediated by User Satisfaction has no effect on Net-Benefit with a significance value > 0.05, namely 0.325.

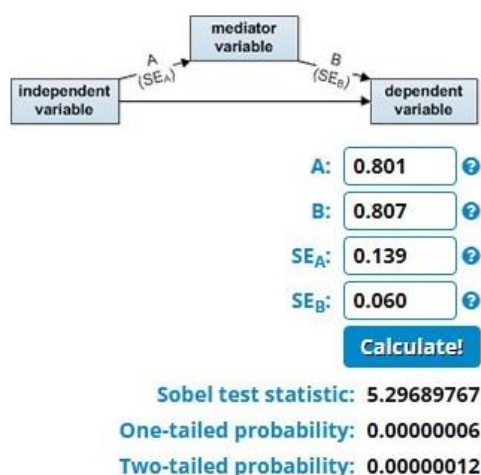


Figure 2. Analyzing the influence of Service Quality on Net Benefit with Environment mediation

Based on the image above, it is known that Service Quality on Net-Benefit with Environment mediation has an effect on Net-Benefit with a significance value > 0.05, namely 0.0000000.

DISCUSSION

In this study, an analysis of the influence of each variable on the implementation of RME In this study, an analysis of the influence of each variable on the implementation of RME was conducted using path analysis with the help of SPSS (Statistical Package for the Social Sciences) software to conduct descriptive statistical analysis, validity tests, reliability tests, and multiple linear regression tests. For intervening or mediating variables use the Sobeltest calculator version 4.0.

Based on responden characteristics

The results of the respondent characteristics can be interpreted as follows. Based on age, the results show that the majority of respondents are aged 17-25 years, namely 86

respondents (79.6%). Based on gender, the results showed that the majority of respondents were female, namely as many as 79 respondents (73.1%). Based on education, the majority of respondents have a bachelor's degree, namely 55 respondents (50.9%). Based on profession, they are nurses, namely 69 respondents (63.9%). Based on length of service, the majority of respondents have a new length of service (<6 years), namely 73 respondents (67.6%).

Analyzing the influence of Service Quality on User Satisfaction

The results of the variable characteristics show that Service Quality has an effect on User Satisfaction with a significance value <0.05 , namely 0.000. According to Ali & Younes (2013) User satisfaction and user interest do not only depend on the quality of the information system, but are also influenced by the quality of the services provided. Likewise, the research that has been carried out by Saputro (2015) has obtained the results of a close relationship between the quality of services provided and user satisfaction. The higher the quality of service provided, the higher the level of user satisfaction will also increase. Based on these two studies, it can be concluded that service quality is a crucial aspect for organizations in achieving information system user satisfaction.

Analyzing the influence of Service Quality on Environment

Service Quality has an effect on the Environment with a significance value of <0.05 , which is 0.000. Quality of service is the support provided by the service provider to the user to ensure that the system used by the user is working properly. The organizational environment consists of sources of financing, government, politics, competition, inter-organizational relations and communication (Fernando, 2020). The implementation of Electronic Medical Records (RME) at Aminah Islamic Hospital Blitar has received good support from the management. One form of support is the availability of laptops as an additional device other than computers in the inpatient unit with the aim of facilitating the process of documentation of care by PPA because it can be carried around. The hospital has also recruited IT members with skills and training that meet the criteria. This is evidenced by the statements of respondents in the questionnaire that documenting through RME is very helpful for coordination between units, one of which is in the inpatient unit

Analyzing the influence of User Satisfaction Service on Net-Benefit

User Satisfaction does not affect Net-Benefit with a significance value of > 0.05 , which is 0.357. %. Yusof (2018) menyatakan bahwa sikap pengguna terhadap sistem informasi merupakan kriteria yang subjektif yang menggambarkan mengenai seberapa suka pengguna terhadap sistem yang digunakan. Pada penelitian ini *User Satisfaction* yang dimaksud adalah ukuran keberhasilan yang dirasakan oleh pengguna SIMRS di Rumah Sakit Islam Aminah Blitar. If further studied through the results of the questionnaire that has been filled in by the respondents whether they are satisfied or not with the system users, they still have to use the Electronic Medical Record (RME) to document their work in the hospital. The results of this hypothesis test are supported by respondents' answers through questionnaires that show that there are respondents who state *that user satisfaction* is good. However, there are still respondents who state that *user satisfaction* is not good.

Analyzing the influence of Environment on Net-Benefit

Environment affects Net-Benefit with a significance value of <0.05 , which is 0.000. Jones divides the organizational environment into two parts, namely the general environment and the specific environment. A specific environment is a leader who has expertise in influencing the organization to secure its resources. Meanwhile, the general environment is a condition

from outside the organization and has an influence on the development of the organization and the existence of the organization directly or vice versa (Wirajaya, 2022). The organizational environment must be able to adapt to problems that may occur in the implementation of information systems to reduce obstacles in managing change (Khotimah, 2021). According to Purba, all matters related to organization and information technology planning must be in line to ensure that technology development is supported by the organization's own goals (Khotimah, 2021). In this study, *the Environment* in question is all components at the Aminah Blitar Islamic Hospital that have the potential to affect workers in carrying out their duties. Such as government policy with regulations that require all hospitals to hold Electronic Medical Records (RME) in accordance with the Regulation of the Minister of Health (Permenkes) No. 24 of 2022. This makes the hospital committed to continuing to make efforts so that the implementation of 100% RME can be implemented immediately.

Analyze the effect of service quality on net-benefit with user satisfaction mediation

Service Quality with User Satisfaction mediation does not affect Net-Benefit with a significance value of > 0.05 , which is 0.325. Good communication will produce the information needed for the analysis of hospital management needs so that the implementation of RME can be beneficial for all parties (Sugiono, 2013). The results of the study show that user satisfaction cannot affect the quality of service to the benefits. Currently, Aminah Blitar Islamic Hospital uses RME to facilitate structured communication with computerized technology. It is hoped that users in this case PPA will do their work faster and more effectively without any missed communication between units and colleagues. The researcher argues that user dissatisfaction is caused by several times the RME service has been disrupted such as network problems and vendors have not provided quality and service assurance for the use of SIMRS and have not been able to solve problems that may arise in the use of SIMRS.

Analyze the effect of service quality on net-benefit with environment mediation

Service Quality with Environment mediation affects Net-Benefit with a significance value of > 0.05 , which is 0.000000. These results show that directly Service Quality through the Environment has a significant influence on Net-Benefit. According to research by Franki & Sari (2022), the organizational environment also affects system usage and user satisfaction or vice versa. The use of information technology itself in the health sector has actually started a long time ago. Efforts to determine the quality improvement strategy carried out is one of the keys to these efforts is the role of information and communication technology (IT), which is an integral part of improving quality. At that time, the committee involved in the activity rallied a national commitment to build information infrastructure to support health services, consumer/patient health, assessment and quality improvement, public accountability, clinical research and health services, and clinical education. Hospital management requires fast and accurate data management to create quality services. Manual data management has many disadvantages, in addition to taking a long time, its accuracy is also less acceptable because of the possibility of very large errors.

CONCLUSION

In general, it can be concluded that Service Quality and Environment have an effect on Net-Benefit. With the presence of professional and reliable IT personnel and government policies, management support and commitment from all parties can provide benefits in the implementation of EMR in hospitals. On the other hand, User Satisfaction does not affect Net-Benefit, in line with Yusof (2018) who stated that user attitudes towards information systems are subjective criteria that describe how much users like the system used.

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