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ORIGINAL RESEARCH

EVALUATION OF THE JKN MOBILE APPLICATION USING THE EUCS METHOD AT RSU ANNA MEDIKA MADURA BANGKALAN DISTRICT

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ABSTRACT

JKN Mobile Application is a means of information for JKN or BPJS Health participants. Evaluation of the use of the JKN Mobile application that supports JKN programme services needs to be done so that the application can continue to be used and as a recommendation for future application improvements. The type of research is quantitative with an analytical survey approach using a cross sectional design. Population in this study were all BPJS health participants in Bangkalan Regency who used the Mobile JKN application. The sampling technique in this study was accidental sampling. Evaluation using the EUCS method is used to provide an assessment of user satisfaction with system quality. Results of hypothesis testing on the variables of concent, accuracy, format, ease of use, timeliness and user satisfaction show that each of these variables has a sign value. <0.05, which means that the hypothesis of each variable is accepted (Ha). JKN mobile application already displays clear information, is easy to understand, provides accurate information, a good and attractive appearance and ease of understanding, ease of use and accuracy of displaying the latest information so as to provide user satisfaction with the application. Improving the performance of the JKN mobile application is necessary to maintain service quality and aims to increase the satisfaction of users of the application.

Keywords

Application, Mobile JKN, EUCS

INTRODUCTION

According to the World Health Organization (WHO), UHC is a health financing system that ensures that every citizen has fair and equitable access to needed, quality, and financially affordable health services, including promotive, curative, preventive, and rehabilitative services (Agustina et al., 2018). So far, UHC has only been seen from the coverage of JKN membership, whereas UHC has broader dimensions, namely service coverage, service quality, and financial protection for health. The government's target for this programme is to have at least 95% of the population covered by JKN throughout Indonesia by early 2019.\

The National Health Insurance (JKN) programme has been implemented by the Social Security Administration Agency (BPJS) for Health since 1 January 2014. BPJS Kesehatan was formed on the basis of Law No. 24/2011 on Social Security Organisation (BPJS) Article 14 which states that everyone, including foreigners who

work and live for at least 6 months in Indonesia, must become JKN participants.

The JKN programme aims to help the entire community to get quality promotive, preventive, curative, and rehabilitative health services at affordable costs. So that there are no more people who cannot seek treatment because there is no money. Participation in the National Health Insurance (JKN) is mandatory based on Law No.40 of 2004 concerning SJSN with the aim of meeting the basic health needs of a decent society that will be given to everyone who pays contributions or whose contributions are paid by the government (Kusumaningrum & Azinar, 2018).

In Indonesia, as the target set by the government in 2019, 257.5 million people are expected to become JKN-KIS participants to realise Universal Health Coverage (UHC) and cover the health of all Indonesian people (Nurvita, 2019).

In 2017, the number of uses of the JKN Mobile Application for the Android version was > 1,000,000 users and the iOS version was > 2,000 (Lubis et al., 2020). The Social Security Administration (BPJS) Health stated that 2,788,798 out of a total of 3,929,038 people on Madura Island have been registered as the National Health Insurance (JKN) programme. Bangkalan Regency membership data is 680,219 people or around 63.65 per cent of the total population of 1,068,717 people (Communication and Information Agency, 2018).

Mobile JKN aims to enable people to enjoy services quickly. This application can be used anywhere anytime without time limitations (self service). Service innovations carried out by BPJS Kesehatan are expected to fulfil customer satisfaction as BPJS Kesehatan participants. Satisfaction is the difference between expectations and the performance he receives (Saptonoadi et al., 2018). To measure customer satisfaction, there are three important aspects that are interrelated, namely first what will be measured, how the measurement method is, and how the measurement scale is (Harfika & Abdullah, 2021).

The success of the information system can be seen from several things including how good the quality of the system is, the information provided, the level of use, user satisfaction and other things that see how much effect is obtained by the presence of the information system (Sapty Rahayu et al., 2018). The information system success model developed by DeLone and McLean is a very widely used model for measuring information system success. The model states that information success can be influenced by system quality, information quality, service quality, usage and net benefits (Hendyca Putra & Siswanto, 2016).

The utilisation of Mobile JKN in Indonesia is still relatively low, this can be seen from the results of previous studies. The Mobile JKN application is good when viewed from the time required when providing services, but the application of the Mobile JKN application has not reached the specified target (Wulanadary et al., 2019). One of the factors for the low use of the Mobile JKN application at the Bogor District Health Branch Office is because participants are reluctant to use the application (Sari et al., 2019).

Several things that factor into the low utilisation of Mobile JKN include system quality which is the main measure of system performance of an application that is shown when users use the application both in terms of hardware and software. Information quality can show the quality of information that users expect in the application. Service quality can describe the services that users expect when using the application.

Results of the preliminary study related to the use of the JKN Mobile

application complained that the application often crashed, participants who had left the account if they wanted to enter the account again experienced problems because the application crashed. Another obstacle related to the use of the JKN Mobile application is when going to enter the application account requesting renewal after success the application still cannot be used. Based on the background description above, evaluation of the use of the JKN mobile application using the EUCS method aims to determine the level of user acceptance.

METHOD

The type of research used is quantitative research with an analytical survey approach using a cross sectional design. Population in this study were all BPJS health participants in Bangkalan Regency who used the JKN Mobile application. The sampling technique in this study was accidental sampling with a sample size of 100 people. Determination of the sample based on chance, namely making a sample of anyone who is encountered and meets the criteria as a source of data during research in May - July 2023 who visits ANNA Medika Madura Bangkalan Hospital to need health services. Data collection using a questionnaire with a different number of questions for each variable. On the variable content (system success), accuracy (data accuracy), format (aesthetics and appearance), ease of use (ease of use) and timeliness (timeliness of the system). The questionnaire used was sourced from similar previous research. The measurement scale of the questionnaire statement is using a Likert scale, which consists of four classifications of answers given as shown in table 1. This research has obtained permission from the Research Ethics Commission of STIKes Ngudia Husada Madura No: 1619/KEPK/STIKES-NHM/EC/IV/2023.

Table 1. Likert scale

statement	assessment
Strongly agree	5
Agree	4
Moderately	3
Disagree	2
Strongly disagree	1

Data processing using SPSS proram, data analysis to test the hypothesis using the correlation test (spearman rank) to test the relationship between the two variables studied with the equation

$$t = {}^{rs}\sqrt{\frac{N-2}{1-rs^2}}$$

t = significance level (tcount)
rs = spearman correlation coefficient
N = Number of respondents

The results of the correlation calculation to determine the level of relationship between the variables studied are interpreted in table 2.

Table 2. Interpretation of correlation assessment

correlation coefficient	Relationship level
0.00 - 0.199	Very weak
0.20 – 0.399	Weak
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.80 – 1.000	Very strong

Source: (Sugiyono, 2021)

Hypothesis testing in this study has five hypotheses to explain the variables that influence the use of the JKN Mobile Application. Hypotheses in this study are:
H1 : Content is positively correlated with User Satisfaction
H2 : Accuracy is positively correlated with User Satisfaction
H3 : Format is positively correlated with User Satisfaction
H4 : Ease of Use positively correlates with User Satisfaction

H5 : Timeliness is positively correlated with User Satisfaction

RESULTS

Analysis of Results

a. Validity test.

Validity is the degree of accuracy between the data that actually occurs on the object and the data collected by the researcher (Sugiyono, 2021). The validity test is used to test the validity of the questionnaire that has been distributed to respondents. Validity testing using SPSS, the basis for making validity testing decisions is if rcount≥rtabel then the questionnaire items are valid. However, if rhitung≤rtabel then the questionnaire item is invalid, with a significance level of 5% (α = 0.05). The results of data validity testing can be seen in table 3.

Table 3. Validity test results

Variables	Code	r-table	r-Count	Description
Content	C1	0.195	0.939**	Valid
	C2	0.195	0.931**	Valid
	C3	0.195	0.944**	Valid
	C4	0.195	0.913**	Valid
Accuracy	A1	0.195	0.948**	Valid
	A2	0.195	0.945**	Valid
Format	F1	0.195	0.931**	Valid
	F2	0.195	0.955**	Valid
	F3	0.195	0.903**	Valid
Ease of Use	E1	0.195	0.968**	Valid
	E2	0.195	0.965**	Valid
Timeliness	T1	0.195	0.958**	Valid
	T2	0.195	0.954**	Valid
User Satisfaction	U1	0.195	0.900**	Valid
	U2	0.195	0.944**	Valid
	U3	0.195	0.921**	Valid
	U4	0.195	0.923**	Valid
	U5	0.195	0.926**	Valid

b. Reliability test

Reliability test is the extent to which the measurement results using the same object will produce the same data. The reliability test is carried out jointly on all statements (Sugiyono, 2021). The reliability test is used to test the consistency of the questionnaire items that have been distributed to respondents. Reliability testing using SPSS by looking at the Cronbach Alpha value, the basis for decision making if the alpha value of each variable is> 0.70, then the question item is reliable and if the alpha value

Table 4. Reliability test results

Variabel	Alpha (α)	Description
Content	0.949	Reliabel
Accuracy	0.883	Reliabel
Format	0.922	Reliabel
Ease of Use	0.930	Reliabel
Timeliness	0.905	Reliabel
User Satisfaciton	0.956	Reliabel

c. Hypothesis Testing

The hypothesis in this study is to measure the correlation between variables. Hypothesis testing using SPSS with a significance value of 5% (α=0.05). If the significance value <0.05, the hypothesis is accepted, which means that the variables are correlated, but if the significance value> 0.05, the hypothesis is rejected, which means that the variables are not correlated. The results of the correlation of all variables can be seen in table 5.

Table 5. Hypothesis testing results

	Hypothesis	**Category**
H1		Strong

Content is positively correlated to User Satisfaction with a correlation value (r) of 0.674**.		
H2 Accuracy is positively correlated to User Satisfaction with a correlation value (r) of 0.783**.	Strong	
H3 Format is positively correlated to User Satisfaction with a correlation value (r) of 0.730**.	Strong	
H4 Ease of use correlates positively to User Satisfaction with a correlation value (r) of 0.744**.	Strong	
H5 Timeliness is positively correlated to User Satisfaction with a correlation value (r) of 0.744**.	Strong	

DISCUSSION

Based on the validity test results in table 3, it shows that of the 18 questions on the content, accuracy, format, ease of use, timeliness and user satisfaction variables, the rcount≥rtable value for each question item, namely rtable = 0.195. This means that each question item for each variable is said to be valid. The required data collection requirement is that each question item must have a validity test result value of rcount≥table (Priyatno, 2018). Meanwhile, the reliability test results in table 4 show that the Cronbach Alpha value on 6 variables which include content, accuracy, format, ease of use, timeliness and user satisfaction is greater than 0.70, this means that each of these variables has reliability or reliability. According to Sugiyono (2021) a measuring instrument is reliable if the measuring instrument if used repeatedly will give relatively the same results (not much different). The results of hypothesis testing on the variables of concent, accuracy, format, ease of use, timeliness and user satisfaction show that each of these variables has a sign value. <0.05, which means that the hypothesis of each variable is accepted (Ha). Hypothesis (H1) states that if the content variable is positively correlated (strong) of 0.674** with user satisfaction, it shows that the better the quality of content in displaying information that is clear and easy to understand, it will increase user satisfaction. Hypothesis (H2) states that if the accuracy variable is positively correlated (strong) of 0.783** with user satisfaction, it shows that the more accurate the JKN mobile application information is, it will increase user satisfaction with the application. Hypothesis (H3) states if the format variable is positively correlated (strong) by 0.730** with user satisfaction, this means that the better and more attractive the appearance and makes it easier to understand the use of the JKN mobile application, the user will also feel satisfied in using the application. Hypothesis (H4) states that if the ease of use variable is positively correlated (strong) of 0.744** with user satisfaction, this shows that if it is easy to use the JKN mobile application, it will provide satisfaction to its users. Hypothesis (H5) states that the timeliness variable is positively correlated (strong) of 0.744** with user satisfaction, meaning that the JKN mobile application has timeliness in displaying the latest information, giving satisfaction to users of the application. Evaluation of the use of SIMPEG (Personnel Management Information System) using the EUCS method shows that the hypothesis results are accepted in the five variables (content, accuracy, format, ease of use, timeliness) affect user satisfaction (Puspitasari et al., 2021). The accuracy of needs, reliability, completeness of information, easy-to-understand display and ease of use of the system or application affect user satisfaction (Moeljono et al., 2023).

CONCLUSIONS

The overall hypothesis is accepted and each variable content, accuracy, format, ease of

use, timeliness is positively correlated with user satisfaction. The JKN mobile application already displays clear information, is easy to understand, provides accurate information, a good and attractive appearance and ease of understanding, ease of use and accuracy of displaying the latest information so as to provide user satisfaction with the application. Improving the performance of the JKN mobile application is needed to maintain service quality and aims to increase user satisfaction.

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CONFLICT OF INTEREST

There is no conflict of interest in this study.

REFERENCES

Agustina, N. (2018). Evaluasi Penggunaan Sistem Informasi ERP Dengan Metode Pieces Framework. *Jurnal Informatika*, *5*(2), 278–286. https://doi.org/10.31311/ji.v5i2.3897

Dinas Komunikasi dan Informastika, J. T. (2018). *BPJS Kesehatan Catat Sebanyak 2,7 Juta Masyarakat Madura Terdaftar JKN*. Dinas Kominfo. https://kominfo.jatimprov.go.id/read/umum/bpjs-kesehatan-catat-sebanyak-2-7-juta-masyarakat-madura-terdaftar-jkn

Harfika, J., & Abdullah, N. (2021). Pengaruh Kualitas Pelayanan Dan Fasilitas Terhadap Kepuasan Pasien Pada Rumah Sakit Umum Kabupaten Aceh Barat Daya. *Jurnal Balance*, *44*(1), 1–24.

Hendyca Putra, D. S., & Siswanto, M. (2016). Pengaruh Kualitas Sistem, Kualitas Informasi Dan Kualitas Layanan Terhadap Kepuasan Pengguna Sistem Informasi Manajemen Rumah Sakit Daerah Kalisat Kabupaten Jember. *Jurnal Ilmiah Inovasi*, *16*(2), 98–101. https://doi.org/10.25047/jii.v16i2.291

Kusumaningrum, A., & Azinar, M. (2018). Kepesertaan Masyarakat dalam Jaminan Kesehatan Nasional Secara Mandiri. *HIGEIA Journal of Public Health Research and Development*, *2*(1), 149–160. http://journal.unnes.ac.id/sju/index.php/higeia

Moeljono, E., Daniyanti, E. S., Savira, D. Y., & Damayanti, N. P. (2023). ANALISIS KEPUASAN PENGGUNA SISTEM INFORMASI MANAJEMEN PUSKESMAS MENGGUNAKAN METODE EUCS DI PUSKESMAS BANYUANYAR. *Nursing Update*, *14*(2), 395–402.

Nurvita, S. (2019). Gambaran Kepesertaan JKN Tahun 2019. *Jurnal Manajemen Kesehatan Indonesia*, *7*(3), 217–222. https://doi.org/10.14710/jmki.7.3.2019.217-222

Priyatno, D. (2018). *SPSS : Panduan Mudah Olah Data Bagi Mahasiswa & Umum*. CV. ANDI OFFSET.

Puspitasari, N., Tampubolon, W., & Taruk, M. (2021). Analisis Metode EUCS Dan HOT-FIT Dalam Mengevaluasi Penerapan Sistem Informasi Manajemen Kepegawaian (SIMPEG). *Jurnal SITECH : Sistem Informasi Dan Teknologi*, *4*(1), 19–28. https://doi.org/10.24176/sitech.v4i1.6031

Saptonoadi, C. F. N. A., Herlambang, A. D.,

& Wijoyo, S. H. (2018). Kualitas dan Kesuksesan Implementasi Sistem Informasi Kesehatan dengan Menggunakan Model Unified Theory of Acceptance and Use of Technology dan Model Delone and Mclean. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer (J-PTIIK) Universitas Brawijaya*, *2*(12), 6386–6390.

Sapty Rahayu, F., Apriliyanto, R., & Sigit Purnomo Wuryo Putro, Y. (2018). Analisis Kesuksesan Sistem Informasi Kemahasiswaan (SIKMA) dengan Pendekatan Model DeLone dan McLean. *Indonesian Journal of Information Systems*, *1*(1), 34–46. https://doi.org/10.24002/ijis.v1i1.1704

Sari, L. mila, Hartini, S., & Andria, F. (2019). Na Me Nd Nb. *Efektivitas Penggunaan Aplikasi Mobile JKN Sebagai Strategi Meminimalisir Tingkat Antrian Di Kantor Cabang BPJS Kesehatan Kabupaten Bogor*.

Sugiyono. (2021). *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Sutopo (ed.); 2nd ed.). Afabeta.

Wulanadary, A., Sudarman, S., & Ikhsan, I. (2019). Inovasi BPJS Kesehatan Dalam Pemberian Layanan Kepada Masyarakat : Aplikasi Mobile JKN. *Jurnal Public Policy*, *5*(2), 98. https://doi.org/10.35308/jpp.v5i2.1119