
| RESEARCH ARTICLE

National Health Insurance (JKN) Mobile Application Use Towards Satisfaction of Participants of the Health Social Security Implementing Agency (BPJS) in Madani Hospital in Medan City

Ismail Efendy¹, Mapeaty Nyorong², Asriwati Amirah³ and Farida Sari⁴ ✉

¹²³⁴*Faculty of Public Health, Helvetia Institute of Health, Medan, Indonesia*

Corresponding Author: Farida Sari, **E-mail:** faridasarihelvetia@gmail.com

| ABSTRACT

The National Health Insurance (JKN) mobile is an application launched by the Social Health Insurance Administration (BPJS) to make it easier for the public to get optimal health services online. The presence of this application is expected to increase the satisfaction of BPJS health participants as users. Consumer satisfaction is a representation of service quality (service quality). Online service quality (e-SERVQUAL) serves to measure customer perceptions of the quality of online mobile application services. This study aimed to analyze the use of the JKN mobile application on the satisfaction of BPJS health participants at the Madani Hospital in Medan City 2021. This study uses a quantitative approach. This type of research is an analytic survey with a cross-sectional design. Sampling is done by using the proportion estimation formula. The research sample was 92 BPJS Health participants who visited Madani Hospital Medan with the criteria of being at least 18 years old and had downloaded and used the JKN mobile application. The data collected was then analyzed using statistical tests including univariate, bivariate and multivariate. The data analysis process uses the help of Statistical Product and Service Solutions (SPSS) software. The results showed that the use of the JKN mobile application was based on the efficiency factor with a p-value of 0.000 and χ^2 calculated 30.728, the reliability factor with a p-value of 0.023 and χ^2 calculated 7.188, the fulfilment factor with a p-value of 0.002 and χ^2 counts 12,841, the privacy factor with a p-value value 0.004 and χ^2 count 11.897 affect the satisfaction of BPJS health participants. The most dominant factor influencing the satisfaction of BPJS health participants in using the JKN mobile application is efficiency. The efficiency variable has a significant effect and has a positive relationship to satisfaction. The efficiency variable increases the possibility as much as 62.801 times. The suggestion of this research for BPJS Kesehatan should continue to innovate to develop service features to suit the era of national digital transformation. Be more active and more creative in promoting and socializing the JKN mobile application and must be able to give confidence to the public that the JKN mobile application is well protected. The Medan City Madani Hospital should be more aggressive in socializing the use of the JKN mobile application to patients who use the JKN-KIS card, especially the online queue feature. The utilization of administrative services, especially during the Covid-19 pandemic, can avoid crowds in the waiting room. BPJS health participants should download and install the JKN mobile application on mobile devices to get easy access to health services and provide services online and offline so that access to health services can be done as much as possible.

| KEYWORDS

Satisfaction, Efficiency, Reliability, Fulfillment, Privacy

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1. Introduction

The coronavirus disease (Covid-19) pandemic poses a challenge to health systems around the world. The rapidly increasing need for care for people with Covid-19 is further compounded by fear, misinformation, and restrictions on people's movement and supplies that disrupt the delivery of frontline healthcare for everyone. When health systems are overwhelmed, and people cannot access the services they need, direct and indirect deaths from preventable and treatable diseases increase (World Health Organization, 2020).

Existing service delivery approaches need to be adapted according to the risk-benefit analysis. If necessary, in-person visits should be limited through the use of alternative service delivery mechanisms such as mobile phone applications, telemedicine, and other digital platforms so that health workers can provide services safely and effectively. Decisions taken need to be adapted to the relevant national and subnational policies and periodically re-evaluated using a comprehensive and coordinated approach (2).

The Indonesian government, as the main decision-maker, has made various efforts to improve the quality of public health, such as creating the Community Health Insurance (Jamkesmas) program, but the program is considered not to be running effectively, so the government finally formed the National Health Insurance (JKN) program through the Social Security Administration. National Health (BPJS) Health which operationally, the implementation of JKN is stated in Government Regulations and Presidential Regulations, including; Government Regulation No. 101 of 2012 concerning Contribution Assistance Recipients (PBI); Presidential Regulation No. 12 of 2013 concerning Health Insurance; and the JKN Roadmap (National Health Insurance Roadmap).

JKN developed in Indonesia is part of the National Social Security System (SJSN). The National Social Security System is implemented through a mandatory (mandatory) Social Health Insurance mechanism based on Law No. 40 of 2004 concerning the National Social Security System. The aim is that all Indonesians are protected in the insurance system so that they can meet the basic needs of decent public health (3).

BPJS Kesehatan is a State-Owned Enterprise specially assigned by the government to provide health care insurance for all Indonesian people. The JKN program, which is part of the BPJS Kesehatan, is a government program that aims to provide the highest possible certainty for public health insurance so that quality and cost-controlled health services are realized.

According to the National Social Security Council (DJSN), the initial implementation of the JKN program encountered several obstacles, such as not all residents being included as participants, uneven distribution of health services, varying quality of health services, referral systems and payments that were not optimal. Inequality in the availability of health facilities and geographical conditions that vary widely create the potential for widening health inequalities between community groups.

The presence of the National Health Insurance Program - Healthy Indonesia Card (JKN-KIS) has, in fact, been felt by the community. This can be seen from the number of participants and the utilization rate that has continued to increase since it was implemented on January 1 2014. As of March 1, 2019, the participants of the JKN-KIS program have reached 218,132,478 people covering 82.64% of the total population of Indonesia. On the other hand, this program has also raised awareness of the importance of working together in maintaining and maintaining health together. It is hoped that all Indonesians will be protected under the JKN-KIS Program or Universal Health Coverage (UHC). Residents who have not been registered as JKN-KIS participants in an area can be registered in groups by the provincial government and/or district/city government (Pemda). This registration is intended to integrate regional health insurance (Jamkesda) into the JKN-KIS program (4).

2. Methods

This study uses a quantitative approach. This type of research is an analytic survey with a cross-sectional design. The population in this study was the Health Social Security Administering Body (BPJS) participants who visited Medan Madani Hospital in February 2021, totalling 4,276 people. The sample is part of the number and characteristics possessed by respondents with a minimum age of 18 years, where it is assumed that the respondents already understand enough and can respond to questions from the questionnaire well. Second, participants who have downloaded and used the Mobile JKN application. Sampling was carried out using the proportion estimation formula, with as many as 92 respondents.

3. Research Result

Information regarding the characteristics of research respondents consisted of name, address, email/phone number, age, gender, BPJS domicile, last education and occupation. Only age, gender, education, and occupation appeared in the respondent's characteristics in this study. This is done so that research ethics are maintained. The characteristics of research respondents at Madani General Hospital Medan are as follows.

Table 1. Distribution of Respondent Characteristics

No.	Characteristics of Respondents	Total	
		n	%
1	2	3	4
1.	Age		
	➤ 18-35 years	53	57,6
	➤ > 35 years	39	42,4
2.	Gender		
	➤ Man	40	43,5

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➤	Woman	52	56,5
3.	Education		
➤	Low (Elementary/Junior School/equivalent)	5	5,4
➤	Medium (High School/equivalent)	42	45,7
➤	Higher (Academy/University/equivalent)	45	48,9
4.	Work		
➤	Not Yet/Not Working	2	2,2
➤	Taking care of the household	26	28,3
➤	Student/Student	5	5,4
➤	Private Employees	28	30,4
➤	BUMN/Honoree/Civil Servant/ARMY/Police Employees	11	12,0
➤	Self-employed	20	21,7

Source: Primary Data, 2021

Based on table 12, it can be seen that of the 92 research respondents (100%), most of them were aged 18-35 years, namely 53 people (57.6%), female sex was 52 people (56.5%), higher education was as many as 45 people (48.9%) and work as private employees as many as 28 people (30.4%).

3.1 Univariate Analysis

3.1.1 Satisfaction

Table2. Distribution of Satisfaction of The Organizing Body Participants Social Security (BPJS) Health

Satisfaction	n	%
Satisfied	82	89,1
Not satisfied	10	10,9
Sum	92	100

Source: Primary Data, 2021

Based on table 2, information is obtained that most of the participants of the Health Social Security Administering Body (BPJS) at Madani Hospital are satisfied with using the National Health Insurance (JKN) mobile application, which is 89.1%, while the other 10.9% are dissatisfied.

a. Efficiency

Table 3. Variable Distribution efficiency

Efficiency	N	%
Efficient	72	78,3
Less Efficient	20	21,7
Sum	92	100

Source: Primary Data, 2021

Table 3 shows that most participants in the Health Social Security Administering Body (BPJS) at Madani Hospital think that the utilization of the National Health Insurance (JKN) mobile application access is efficient at 78.3%, while another 21.7% think it is less efficient.

b. Reliability

Table 4. Variable Distribution reliability

Reliability	N	%
Reliable	80	87,0
Less Reliable	12	13,0
Sum	92	100

Source: Primary Data, 2021

Table 4 shows that most of the participants of the Health Social Security Administering Body (BPJS) at Madani Hospital think that the National Health Insurance (JKN) mobile application is reliable at 87.0%, while 13.0% are of the opinion that it is less reliable.

c. Fulfillment

Table 5. Fulfillment Variable Distribution

Fulfillment	n	%
Fulfilled	75	81,5
Less Fulfilled	17	18,5
Sum	92	100

Source: Primary Data, 2021

Table 5 shows that the majority of the participants of the Health Social Security Administering Body (BPJS) at Madani Hospital believe that access to health services using the National Health Insurance (JKN) mobile application is fulfilled, which is 81.5%, while another 18.5% think it is not fulfilled.

d. Privacy

Table6, Variable Distribution of Privacy

Privacy	n	%
Privacy	79	85,9
Lack of Privacy	13	14,1
Sum	92	100

Source: Primary Data, 2021

Table 6 shows that most of the participants of the Health Social Security Organizing Agency (BPJS) at Madani Hospital argued that membership data on the National Health Insurance (JKN) mobile application was privacy at 85.9%, while the other 14.1% argued for lack of privacy.

3.2 Bivariate Analysis

3.2.1 The Effect of Efficiency Factors in the Use of National Health Insurance Mobile Applications (JKN) on the Satisfaction of Participants of the Health Social Security Organizing Agency (BPJS)

Table7. Cross-Tabulation Between Efficiency Variables with Satisfaction Variables

Efficiency	Satisfaction				Total	χ^2 (P)
	Satisfied		Not satisfied			
	n	%	n	%		
Efficient	71	77,2	1	1,1	72	30,728 (0,000)
Less Efficient	11	11,9	9	9,8	20	
Sum	82	89,1	10	10,9	92	

Source: Primary Data, 2021

Table 7 shows that of the 92 respondents mostly argue that the utilization of access to the National Health Insurance (JKN) mobile application is efficient and feel satisfied using the National Health Insurance (JKN) mobile application, which is 71 people (77.2%). Fisher's exact test results at 95% confidence yield p values of 0.000 ($P < 0.05$) and χ^2 counts (30,728) $\geq \chi^2$ tables (3,841). This shows that statistically, there is an effect of efficiency factors in using the National Health Insurance (JKN) mobile application on the satisfaction of participants of the Social Security Organizing Agency (BPJS) health at Madani Hospital Medan City in 2021.

3.2.2 The Effect of Reliability Factors in the Use of National Health Insurance Mobile Applications (JKN) on the Satisfaction of Participants of the Health Social Security Organizing Agency (BPJS)

Table 8 Cross-Tabulation Between Reliability Variables with Satisfaction Variables

Reliability	Satisfaction				Total	χ^2 (P)
	Satisfied		Not satisfied			
	n	%	n	%		
Reliable	74	80,4	6	6,5	80	7,188 (0,023)
Less Reliable	8	8,7	4	4,4	12	
Sum	82	89,1	10	10,9	92	

Source: Primary Data, 2021

Table 8 shows that of the 92 respondents mostly argue that the National Health Insurance (JKN) mobile application is reliable and feels satisfied using the National Health Insurance (JKN) mobile application, which is 74 people (80.4%). Fisher's exact test results at 95% confidence yield p values of 0.023 ($P < 0.05$) and χ^2 counts (7,188) $\geq \chi^2$ tables (3,841). This shows that statistically, there is an influence of reliability factors in using the National Health Insurance (JKN) mobile application on the satisfaction of participants of the Social Security Organizing Agency (BPJS) health at Madani Hospital Medan City in 2021.

3.2.3 The Effect of Fulfillment Factors in the Use of National Health Insurance Mobile Applications (JKN) on the Satisfaction of Participants of the Health Social Security Organizing Agency (BPJS)

Table 9, Cross Tabulation Between Fulfillment Variables with Satisfaction Variables

Fulfillment	Satisfaction				Total	χ^2 (P)
	Satisfied		Not satisfied			
	n	%	n	%		
Fulfilled	71	77,2	4	4,4	75	12,841 (0,002)
Less Fulfilled	11	11,9	6	6,5	17	
Sum	82	89,1	10	10,9	92	

Source: Primary Data, 2021

Table 9 shows that of the 92 respondents mostly argued that access to health services using the National Health Insurance (JKN) mobile application was fulfilled and was satisfied using the National Health Insurance (JKN) mobile application, which amounted to 71 people (77.2%). Fisher's exact test results at 95% confidence yield p values of 0.002 ($P < 0.05$) and χ^2 counts (12,841) $\geq \chi^2$ tables (3,841). This shows that statistically, there is a fulfillment factor in the use of the National Health Insurance (JKN) mobile application on the satisfaction of participants of the Social Security Organizing Agency (BPJS) health at Madani Hospital in Medan City in 2021.

3.2.4 The Influence of Privacy Factors in the Use of National Health Insurance Mobile Applications (JKN) on the Satisfaction of Participants of the Health Social Security Organizing Agency (BPJS)

Table 10, Cross-Tabulation Between Privacy Variables with Satisfaction Variables

Privacy	Satisfaction				Total	χ^2 (P)
	Satisfied		Not satisfied			
	n	%	n	%		
Privacy	74	80,4	5	5,4	79	11,897 (0,004)
Lack of Privacy	8	8,7	5	5,5	13	
Sum	82	89,1	10	10,9	92	

Source: Primary Data, 2021

Table 10 shows that of the 92 respondents mostly argue that membership data on the National Health Insurance (JKN) mobile application is privacy and is satisfied using the National Health Insurance (JKN) mobile application, which is 74 people (80.4%). Fisher's exact test results at 95% confidence yield p values of 0.004 ($P < 0.05$) and χ^2 counts (11,897) $\geq \chi^2$ tables (3,841). This shows that statistically, there is an influence of privacy factors in the use of the National Health Insurance (JKN) mobile application on the satisfaction of participants of the Social Security Organizing Agency (BPJS) health at Madani Hospital in Medan City in 2021.

3.3 Multivariate Analysis

Multivariate analysis in this study used multiple logistic regression tests. In the bivariate analysis, it is known that all independent variables (efficiency, reliability, fulfillment and privacy) are related to the dependent variable (satisfaction) so that they are jointly included in the calculation of the Enter method of logistic regression tests with the following results:

Table 11. Multivariate Analysis of Participant Satisfaction of the Health Social Security Administering Body (BPJS) at Madani Hospital

Variabel Independen	B	Wald	Sig	Exp (B)	95,0% C.I.for EXP(B)	
					Lower	Upper
Efficiency	4,140	10,394	0,001	62,801	5,069	778,088
Reliability	-0,827	0,585	0,444	0,437	0,053	3,641
Fulfillment	0,230	0,051	0,822	1,258	0,171	9,267
Privacy	2,152	3,669	0,055	8,604	0,951	77,829
Constant	-0,950	1,007	0,316	0,387		

Source: Primary Data, 2021

Table 11 shows that only the efficiency variable has a P-value (Sig) < 0.05 , meaning that the efficiency variable has the most dominant influence on the predictive value of the satisfaction variable in the model. The parameter significance test shows that efficiency has a significant effect on satisfaction. This is because the value of 1 (one) is outside the range of the confidence interval (the value of 95.0% C.I. for EXP(B) on the efficiency variable is 5.069 for the lower and 778.088 for the upper). Meanwhile, for reliability variables (lower value 0.053 and upper 3.641), fulfillment (lower value 0.171 and upper 9.267) and privacy (lower value 0.951 and upper 77.829) has a value of 1 (one) within the confidence interval range, then the predictor variable can be stated no significant effect on the response variable.

4. Discussion

Coming directly to a health facility to get physical health examination and treatment services is indeed very good, but it would be even better if each participant of the Health Social Security Administering Body (BPJS), especially JKN-KIS patients with outpatient referrals, registered (online queue) first through the application mobile JKN from home to avoid crowds in the waiting rooms of health facilities, especially during the Covid-19 pandemic, which spreads so quickly, impacting all lines and sectors of life, making people have to change activity patterns by limiting direct interaction and maintaining distance. Over time, mobile JKN has also added advanced features, including the Doctor Consultation menu. With this menu, participants can communicate with doctors at certain FKTPs, without having to meet face-to-face so as to minimize the transmission of Covid-19 and participants from the Health Social Security Administering Body (BPJS) can simply work from home. Efficiency, which is part of the online service quality of the JKN mobile application, ideally provides the best comparison between what the participants of the Health Social Security Administration (BPJS) do and the results of what is done (service output) so that it can be said that the JKN mobile application can produce something that is expected or planned through information about the health services needed. In the current era of globalization, it is not surprising that advances in information and communication technology can promise efficiency, speed of information delivery, affordability, and transparency, including health services. This kind of innovation is needed for developed countries. Before the JKN mobile application was released, all BPJS health administrative arrangements had to be completed at the BPJS Health office, but now it is easier and more practical since the JKN mobile application is available. Efficiency (convenience) is the reason people use JKN-KIS because it can be accessed via mobile JKN. Innovations to make it easier for participants of the Health Social Security Administering Body (BPJS) in terms of obtaining health services are also part of the government's efforts to guarantee the highest degree of health as a manifestation of general welfare through the health system in Indonesia.

Applications that often hang/error when opened indicate that the application is not able to provide accurate and reliable services, and if it continues to do so, it means that the resources of the application developer are weak. Unlike the case with the JKN mobile application, the resources at the Social Security Administering Agency (BPJS) for health are strong because they are able to provide optimal service quality. Researchers assume that promotions for the use of the JKN mobile application are carried out continuously

and optimally as an effort to mobilize and empower the community, namely through the provision of information continuously and continuously following the development of targets because there are still many people who do not know and have never received socialization about JKN mobile application, then there are some people who know but don't want to use the JKN mobile application because they feel they don't need it.

The fulfillment dimension in the JKN mobile application functions to fulfill, implement and realize the needs of the participants of the Health Social Security Administering Body (BPJS) for health services. It can be concluded that the image of a good JKN mobile application service quality is not based on the point of view or perception of the service provider, in this case, the health Social Security Administering Body (BPJS), but based on the consumer's point of view or perception, namely the participants of the health Social Security Administering Body (BPJS). According to the health Social Security Administration Agency (BPJS), the JKN mobile application is presented for the convenience of BPJS Health participants, this is a commitment or promise that must be kept by service providers. The accuracy of this service promise is part of the fulfillment dimension that must be fulfilled, and according to the results of this study, it has been fulfilled. By fulfilling the accuracy of service promises, it is hoped that the participants of the Health Social Security Administering Body (BPJS) will recommend the JKN mobile application to their closest family and friends so that promotions for the use of the JKN mobile application will continue. The efficiency dimension is closely related to the satisfaction of the participants of the health Social Security Administering Body (BPJS), providing special encouragement for the participants of the health Social Security Administering Body (BPJS) to forge an emotional bond of mutual benefit (mutualism). Satisfied health Social Security Administering Body (BPJS) participants will use the JKN mobile application on an ongoing basis to the point where health Social Security Administering Body (BPJS) participants are dissatisfied. In the context of customer satisfaction, generally, expectations are estimates or beliefs of customers about what they will receive. The element that affects the efficiency dimension of the health Social Security Administering Body (BPJS) participants on the service quality of the JKN mobile application is part of the expectations or estimates of the health Social Security Administering Body (BPJS) participants about what they will receive when using the JKN mobile application. The JKN mobile application can prove that it gets optimal results with a little effort (movement/slides of the fingers).

5. Conclusion

The satisfaction experienced by participants of the Health Social Security Administering Body (BPJS) is formed from the convenience (including internal factors and external factors) of the service quality of the JKN mobile application. The level of satisfaction is closely related to the standard of service quality, whether it is as expected or not. Easy access to services provides the best comparison between the efforts made and the results obtained.

5.1 Suggestion

There should be a continuation to develop service features to suit the era of national digital transformation. Promoting and socializing the JKN mobile application. Also, the Health Social Security Administration (BPJS) must also be able to give confidence to the public that the JKN mobile application is well protected.

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