Analysis of Public Satisfaction towards Online Registration through the JKN Mobile Application in the Era of Health Service Digitalization

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ABSTRACT: Advances in information technology have driven the transformation of health services towards digitalization, one of which is through the Mobile JKN application provided by BPJS Kesehatan. This study aims to analyze the level of satisfaction of the Medan City community with the online registration process using the Mobile JKN application. The research method used is a descriptive quantitative approach with a purposive sampling technique on 100 respondents who meet the criteria: domiciled in Medan City, aged over 17 years, and have used the Mobile JKN application. Data were collected through a closed questionnaire based on a Likert scale covering aspects of ease of use, speed of service, clarity of information, and general satisfaction. The results showed that the majority of respondents were satisfied with the ease of access and speed of registration through the application, although there were still technical obstacles and lack of information felt by some users. These findings can be the basis for improving the digitalization system of health services, especially in optimizing features and delivering information on the Mobile JKN application.

Keywords: public satisfaction, Mobile JKN application, digitalization, health services, online registration

1. INTRODUCTION

Rapid advances in information technology provide many conveniences and benefits, especially in the health sector. Information technology is a tool used to process data, access information, and so on, which has a significant impact on the social environment in society (Munti & Syaifuddin, 2020). The use of technology has the potential to increase productivity, while ease of use reflects the level of comfort felt when using the technology (Bahri et al., 2022).

With the development of current technology, it is increasingly easier to interact and access information, both directly and remotely (Pratiwi et al., 2024). Especially in the post-pandemic era like this, many people use information technology through online media, one of which is the development of technology in the health sector, namely electronic health or e-health which refers to the use of information and communication technology (ICT) so that it becomes efficient and financially safe to support various aspects in the health sector. Utilization of Technology and Communication (ICT) which utilizes electronic health (e-health) applications to connect health centers with hospitals has now become a global issue (Winda Azmi Meisari & Nurhayati, 2022).

In recent years, the Indonesian government has made various efforts to improve the quality of health services through digitalization. One example of digitalization of health services is the use of the JKN (National Health Insurance) mobile application for online registration. This application allows people to register and access health services more easily and quickly. (Pohan et al., 2022).

Currently in Indonesia, more than 10 million people have downloaded the Mobile JKN application with users reaching approximately 249.67 million people (Julianti & Markam, 2023). For BPJS Kesehatan, it covers 237,923,846 people or around 86.87% of the total population of Indonesia which is 278,752,361 people (Bahri et al., 2022). In Medan City, the JKN participation rate has reached a very high number. Based on data from the Medan City Government, as of June 1, 2023, 2,449,259 people out of a total of 2,527,050 residents have registered as JKN participants, or 96.92% of the total population. This achievement shows the readiness and great potential in implementing digital-based health services to the community.

However, the success of the health service digitalization program is not only determined by the number of registered participants, but also by the level of satisfaction and ability of the community in using the application. The use of the Mobile JKN application, especially for the online registration feature, still faces various challenges in the field, such as difficulty in using the application, delays in the registration process, and lack of information about available health services.

Therefore, it is necessary to conduct an analysis of public satisfaction with online registration through the JKN mobile application to determine the level of public satisfaction and identify problems that need to be addressed. The results of this analysis can be used as a consideration to improve the quality of health services through digitalization.

2. RESEARCH METHODS

This study uses a quantitative approach with a descriptive method that aims to analyze the level of satisfaction of the Medan City community with online registration through the Mobile JKN application. The population in this study were all Medan City residents who had used the Mobile JKN application to register for health services within the past year. The sample was determined using a purposive sampling technique, namely by selecting respondents based on certain criteria, including: domiciled in Medan City, aged 17 years and over, and having used the Mobile JKN application at least once. The number of samples was 100 respondents as a sample. The data collection technique was carried out using a closed questionnaire based on a Likert scale which was distributed online and offline. The questionnaire instrument includes several indicators, such as ease of use of the application, speed of registration, clarity of service information, and overall satisfaction. The data collected were analyzed descriptively quantitatively to determine the frequency distribution, percentage, and average level of user satisfaction with the Mobile JKN application.

3. RESULTS AND DISCUSSION

Table 1 Respondents' Age

Age	Frequency	Percent
17-22 Years	40	40%
23-28 Years	32	32%
>29 Years	28	28%
Total	**100**	**100%**

Based on data obtained from 100 respondents who use the Mobile JKN application, it can be seen that the majority of users come from the 17-22 year age group at 40%, followed by the 23-28 year age group at 32%, and the remaining 28% are over 29 years old. This shows that the Mobile JKN application is more widely used by young people,

especially the early productive age generation, who are likely to be more familiar with the use of digital technology in everyday life.

Table 2 Gender

| Gender	Frequency	Percent
Man	35	35%
Woman	65	65%
Total	**100**	**100%**

In terms of gender, female respondents dominate the number of users with 65%, while men are only 35%. This indicates that women tend to be more active in using digital health services such as Mobile JKN. This could be because women have more attention to family or personal health services.

Table 3 Jobs

| Work	Frequency	Percent
Students	40	40%
Private employees	25	25%
Other	20	20%
Doesn't work	15	15%
Total	**100**	**100%**

In terms of work, the respondents who use the application the most are students, which is 40%. This is followed by private employees (25%), other categories (20%), and unemployed (15%). This data strengthens previous findings that the majority of users are young people who are still studying, and they are likely to use this application for practical BPJS Kesehatan service administration purposes.

Graph 1 Length of Use of the JKN Mobile Application
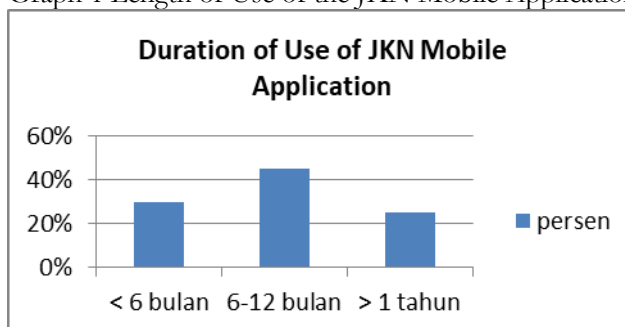
In the first graph showing the duration of application usage, most respondents have used Mobile JKN for 6–12 months (around 40%). Meanwhile, 30% have only used the application for less than 6 months, and 25% have used it for more than a year. This illustrates that the application is still relatively new for most users, and most of them are still in the adjustment or feature exploration stage.

Graph 2 How Often is the JKN Application Used?
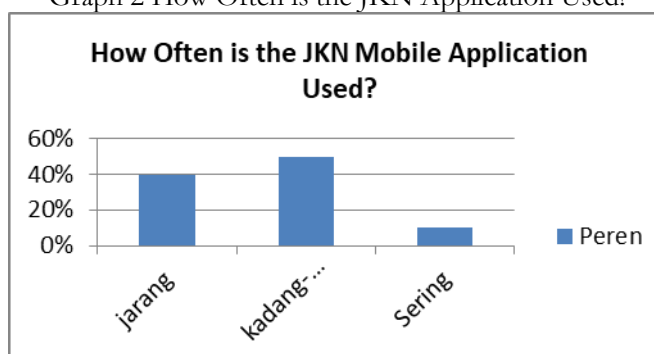
The second graph shows the frequency of application usage. As many as 50% of respondents only use the application occasionally, 35% use it rarely, and only 15% use it frequently. This finding indicates that although many have downloaded and tried the application, the intensity of its use is still relatively low. This could be due to several factors, such as features that are not fully understood, less than satisfactory user experience, or only used when absolutely necessary (for example for registration or service claims).

a. Reliability (Reliability)

Of all the questions, it is negative (-) with a value of -0.01, which means that the community's performance regarding the use of the online registration system application mobile National Health Insurance lower than expected. The results of the calculation of the reliability dimension gap value can be seen in Table 3.1

Table 4 Reliability

Attribute	Performance	Hope	Gap
K1	1.57	1.60	-0.03
K2	1.79	1.81	-0.02
K3	1.75	1.79	-0.04
K4	1.80	1.72	-0.08
Average	**1.72**	**1.73**	**-0.01**

Based on the calculation on this dimension, the average value of the overall gap of the statement attributes is negative (-) which is 0.01. Which means that this shows that the level of service provided has not met user expectations and users are not satisfied.

This is in line with research conducted by Thedriana Riri (2022) where the reliability dimension has an average gap value of -0.02, which means that the performance provided is less than user expectations.

In attribute 1, namely the online registration system on the JKN mobile application functions well, it has a gap value of 0.03, based on field research, this is due to the verification code sent via email and cellphone number. In attribute 3, the ease of accessing the registration system on the JKN mobile application also has a gap value of -0.04. Based on field research, this is due to an unstable internet connection and the JKN mobile server which is sometimes down.

b. Responsiveness

From all the questions, it is positive (+) with a value of 0.02, which means that the community's performance in utilizing the JKN mobile application online registration system is higher than expected. The results of the calculation of the gap value of the responsiveness dimension can be seen in Table 5

Table 5 Responsiveness

Attribute	Performance	Hope	Gap
D1	1.80	1.82	-0.02
D2	1.80	1.81	-0.01
D3	1.96	1.81	0.05
D4	1.97	1.91	0.06
Average	**1.80**	**1.86**	**0.02**

Based on the calculations on this dimension, the average value of the overall gap of the statement attributes is positive (+), which is 0.02, which means that this shows that the level of service provided has met user expectations and users are very satisfied.

This is in line with research conducted by Andi Saryoko (2019) which shows that people are satisfied with the performance of the registration system on the JKN mobile application.

In attribute 1, namely the information in the JKN mobile application registration system is clear and easy to understand, it has a gap value. of -0.02. Based on field research, this is because users do not understand in detail each menu provided in the application so that the information obtained does not match what is needed, so that users can be said that the information in the registration system is unclear and not easy to understand. Attribute 2, namely the login process on the JKN mobile application registration system can be done quickly, has a gap value of -0.01. Based on field research, this is due to an unstable network and server down.

c. Assurance

From all the questions, it is negative (-) with a value of -0.01 which means that the community's performance in utilizing the JKN mobile application online registration system is lower than expected. The results of the calculation of the gap value of the assurance dimension (Assurance) can be seen in Table 6

Table 6 Guarantees

Attribute	Performance	Hope	Gap
J1	1.67	1.66	0.01
J2	1.81	1.84	-0.03
J3	1.86	1.84	0.02
J4	1.85	1.86	0.01
Average	**1.79**	**1.80**	**-0.01**

Based on the calculation on this dimension, the average value of the overall gap of the statement attributes is negative (-) which is -0.01. Which means that this shows that the level of service provided has not met user expectations and users feel dissatisfied.

This is in line with research by Devi Gusmita & Yunus (2020) where the assurance dimension has a gap value of -0.6, which means that users are not satisfied with the assurance dimension.

In attribute 2 when registering online you will receive a verification code which will be sent. via email has a gap value of -0.03. Based on field research, this is because some users do not activate notifications on their smartphones, so if they do not open the email they do not know that there is a code sent via email, there is a time limit for entering the code which hinders the registration process.

d. Empathy

From all the questions, it is positive (+) with a value of 0.04, which means that the community's performance in utilizing the JKN mobile application online registration system is higher than expected. The results of calculating the empathy dimension gap value can be seen in Table 7

Table 7 Empathy

Attribute	Performance	Hope	Gap
E1	1.74	1.71	0.03
E2	1.76	1.71	0.05
E3	1.86	1.80	0.06
E4	1.92	1.90	0.02
Average	**1.82**	**1.78**	**0.04**

Based on the calculation on this dimension, the average value of the overall gap of the statement attributes is positive (+) which is 0.04. Which means that this shows that the level of service provided has met user expectations and users are very satisfied.

This study is also in line with the research conducted. Wulandari (2019) this shows that the services and information provided through the JKN mobile application have been effective in providing services because they are systematic with the application having a positive gap value of 0.04.

Based on field research, the JKN mobile application registration system is effective and efficient in terms of its fast and accurate service and online registration saves costs and time, this shows that the JKN mobile application system makes it very easy for its users so that users feel very satisfied.

e. Physical Evidence (Tangibles)

From all the questions, it is positive (+) with a value of 0.03, which means that the community's performance in utilizing the JKN mobile application online registration system is higher than expected. The results of calculating the gap value of the physical evidence dimension (Tangibles) can be seen in Table 8

Table 8 Physical Evidence

Attribute	Performance	Hope	Gap
B1	1.88	1.81	0.07
B2	1.84	1.80	0.04
B3	1.84	1.82	0.02
B4	1.71	1.72	0.01
Average	**1.81**	**1.78**	**0.03**

Based on the calculation of the average of this dimension, the average value of the overall statement attribute is positive (+) which is 0.03. Which means that this shows that the level of service provided has met user expectations and users are very satisfied.

These results are supported by research conducted by Rika & Gunadi (2022) on the physical evidence dimension of performance exceeding expectations, namely having a positive gap value of 0.03, which means that users are satisfied with this dimension.

Based on field research, this dimension shows that users are satisfied with the completeness of the menus and provisions in the application.

Based on the results of the calculation of the overall gap data processing, the average value of the overall gap is obtained, namely:

Table 9

Dimensions	Performance	Hope	Gap
K1	1.57	1.60	-0.03
K2	1.79	1.81	-0.02
K3	1.75	1.79	-0.04
K4	1.80	1.72	0.08
D1	1.80	1.82	-0.02
D2	1.80	1.81	-0.01
D3	1.96	1.91	0.05
D4	1.97	1.91	0.06
J1	1.67	1.66	0.01
J2	1.81	1.84	-0.03
J3	1.86	1.84	0.02
J4	1.85	1.86	0.01
E1	1.74	1.71	0.03
E2	1.76	1.71	0.05
E3	1.86	1.80	0.06
E4	1.92	1.90	0.02
B1	1.88	1.81	0.07

B2	1.84	1.80	0.04
B3	1.84	1.82	0.02
B4	1.71	1.72	0.01
Total	**1.88**	**1.81**	**0.07**

The overall Gap value of the attributes in the statement between the average performance value and the average expected value of the entire statement, from the calculation the gap or gap result is 0.02 which means that the performance given on the JKN mobile application is greater than the expectations of JKN mobile application users in Medan city as a whole users feel satisfied with the performance of the online registration system on the JKN mobile application. This is in line with research conducted by Ivan Cahya Firmana (2023) The total gap as a whole is 0.03.

4. CONCLUSION

Based on the results of the analysis of public satisfaction with the use of the online registration system for the JKN mobile application in Medan City using the Quality (Servqual) Service method, overall it has a positive gap value of 0.02. Which means there is no gap between performance and expectations, which means that users of the JKN mobile application in Medan City can be said to be good. So it can be concluded that each dimension is as follows:

1. The reliability dimension obtained a negative gap value (-) from the entire statement with a value of -0.01. The gap value in the reliability dimension means that there is still a gap in the performance of the application with the expectations of JKN mobile application users in the Medan city community. So it is necessary to improve the online registration system for JKN mobile application users in the city of Medan

2. The responsiveness dimension obtained a positive gap value (+) from the whole statement with a value of 0.02. The gap value in the responsiveness dimension can be interpreted that the performance of the JKN mobile application for patients in Medan city is already very satisfied, with this. the application can maintain its performance so that users remain satisfied.

3. The assurance dimension obtained a negative gap value (-) from the entire statement with a value of -0.01. The gap value In the assurance dimension, it means that this shows that the level of service provided has not met user expectations and users feel dissatisfied. So it is necessary to improve the online registration system for JKN mobile application users in Medan City

4. The empathy dimension obtained a positive gap value (-) from the entire statement with a value of 0.04. The gap value in the empathy dimension which means the performance of the JKN mobile application for BPJS Kesehatan participants in the city of Medan is already satisfied, with this the application can maintain its performance so that users remain satisfied.

5. Dimension of tangible evidence. obtained a positive gap value (+) from the entire statement with a value of 0.03. The gap value in the dimension of tangible evidence can be interpreted as performance. in the JKN mobile application in the city of Medan is already satisfied, with this. the application can maintain its performance so that users remain satisfied.

RECOMMENDATION

a. In terms of reliability, it is hoped that it can be improved further in relation to the socialization of the JKN mobile application to the public.

b. In the responsiveness dimension, it is expected that the application can always update information routinely, thereby increasing user satisfaction.

c. In the assurance dimension, it is hoped that there will be a fingerprint or face ID feature to guarantee the security of user data.

    d.   In the empathy dimension, it is hoped that the JKN mobile application registration system can maintain the quality of the JKN mobile application system, one of which is by having more active customer service to pay attention to and understand user complaints.

    e.   In the dimension of physical evidence (tangibles), it is expected that the JKN mobile application registration system can improve the quality of service with features that can be easily accessed and the information contained therein is clear and the validity of the data can be accounted for in the JKN Mobile application.

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