

A Review of The Effectiveness of Independent Outpatient Registration Through The *Mobile* JKN at Sukosari Health Center and Manguharjo Health Center in Madiun City

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Abstract. Law Number 40 of 2004 stipulated that the National Social Security System mandates social security for all Indonesian citizens, namely the National Health Insurance (JKN). The Mobile JKN application provides an essential service to the public online, eliminating the need for long queues at health institutions. Research conducted from July 2022 to April 2023 showed that of the 196,917 residents of Madiun City, only 46 participants used the Mobile JKN application. The low enthusiasm for registering independently for outpatient services through Mobile JKN is attributed to either the inability to use the application or the inadequate quality of the service. This study employed a descriptive quantitative design based on observations. The results showed that the application process for Mobile JKN at health centers in Madiun City aligned with technology acceptance. Overall effectiveness was deemed "successful," with a percentage score of 79.02%, attributed to the application's quick access time, reliable information, and prompt handling of consumer complaints. Madiun City health centers encourage the public to use the Mobile JKN application by promoting it through leaflets and social media.

Keywords: Mobile JKN, Effectiveness, Registration, Outpatient, System

I. BACKGROUND

In the current era of globalization, where institutions universally employ information and communication technology, it is rare to find any institution that does not utilize advanced technology systems. Implementing information and communication technology is crucial to stay competitive in business and organizational efforts. It is widely used to achieve time and cost efficiency, compelling every business or organization to integrate it into their work environment (Krisdayanti 2021) [3]. The Mobile JKN application is a vital service provided to the public, both conventionally and online. Previously, people had to endure long queues at BPJS Health offices and other health institutions. Effectiveness refers to how healthy tasks are performed and to what extent employees can produce the desired outcomes. A task is considered adequate if it is completed according to plan within the set time, cost, and quality parameters (Wulanadary 2019) [6].

Research conducted from July 2022 to April 2023 in Madiun City showed that out of 196,917 residents, only 46 participants from Sukosari and Manguharjo health centers used the Mobile JKN application. The low enthusiasm for independent outpatient registration through Mobile JKN is suspected to be due to difficulties in using the application or the poor quality of the service. Based on the questionnaires distributed to 46 respondents at Sukosari and Manguharjo health centers, the application process for Mobile JKN was deemed successful, as was the acceptance of the technology [2]

II. METHOD

The research method used in this study is descriptive quantitative. The sample consists of 46 patients who use the Mobile JKN application. The sampling technique used is total sampling.

II. RESULTS AND DISCUSSION

Table 1 shows the data on the (System Quality) variable based on the questionnaire results regarding the Mobile JKN application users at health centers in Madiun City. Table 1. Frequency Distribution of System Quality Variable Ratings

No	Pertanyaan	Frekuensi				
		STS	TS	N	S	SS
1	Aplikasi <i>Mobile</i> JKN dapat digunakan dengan prosedur yang mudah.	0	5	29	12	0
2	Aplikasi <i>Mobile</i> JKN dapat berfungsi dengan baik.	0	4	6	32	4
3	Akses aplikasi <i>Mobile</i> JKN tidak memerlukan waktu yang lama.	0	2	10	23	11
4	Adanya proteksi dan kerahasiaan data terjaga.	0	6	6	22	12

(Source: Primary Questionnaire Data)

Based on Table 1, which contains questionnaire data, the data were entered into a tabulation table and calculated using *Excel* formulas. The results are shown in Table 2. Frequency Distribution $f(x)$ of System Quality

NO	STS	TS	N	S	SS	Total Skor Indikator
	1	2	3	4	5	
1	0	10	87	48	0	145
2	0	8	18	128	20	174
3	0	4	30	92	55	181
4	0	12	18	88	60	178
jumlah $\Sigma(\Sigma(f))$						678

(Source: Primary Data)

Lisa (2019) stated that the results of her study showed that a quality *Mobile* JKN application service is characterized by ease of use, reliable information systems under various conditions, quick accessibility, and system security [4].Safarah (2023) asserted that implementing the *Mobile* JKN application in healthcare services greatly assists patients in overcoming various difficulties related to JKN-KIS services, both directly and through the application, ensuring that patients receive maximum service [5].Based on Lisa's (2019) and Safarah's (2023) theories, previous research on *Mobile* JKN aligns with this study. *Mobile* JKN users find the application easy to use, and the system's availability positively impacts the community by allowing waiting time to be used for more productive activities.

Researchers found that *Mobile* JKN users feel the application does not require a lengthy registration process and ensures data confidentiality. However, the procedures are challenging for Madiun residents, necessitating a user manual and scheduled socialization by health centers regarding the *Mobile* JKN application.The data are shown in Table 3 based on the questionnaire results on the (*Information Quality*) variable of *Mobile* JKN users at health centers in Madiun City.

Table 3. Frequency Distribution of Information Quality Variable Ratings

No	Pertanyaan	Frekuensi				
		STS	TS	N	S	SS
1	Semua informasi tersedia dengan lengkap dan dapat diakses pada aplikasi <i>Mobile</i> JKN	0	3	13	23	7
2	Bahasa yang digunakan pada aplikasi <i>Mobile</i> JKN mudah dipahami semua golongan	0	0	6	26	14
3	Informasi yang dibutuhkan konsumen tersedia pada aplikasi <i>Mobile</i> JKN	0	1	4	26	15
4	Informasi yang tersedia pada aplikasi <i>Mobile</i> JKN dapat dipercaya kebenarannya	0	0	5	24	17
5	Informasi pada aplikasi <i>Mobile</i> JKN selalu diperbaharui setiap waktu	0	0	8	23	15

(Source: Primary Questionnaire Data)

Based on Table 3, which contains questionnaire data, the data were entered into a tabulation table and calculated using *Excel* formulas. The results are shown in Table 4. Table 4. Frequency Distribution $f(x)$ of Information Quality

NO	STS	TS	N	S	SS	Total Skor Indikator
	1	2	3	4	5	
1	0	6	39	92	35	172
2	0	0	18	104	70	192
3	0	2	12	104	75	193
4	0	0	15	96	85	196
5	0	0	24	92	75	191
jumlah $\Sigma(\Sigma(f))$						944

(Source: Primary Data)

Lisa (2019) stated that the Mobile JKN application service is of high quality because the system ensures security and shows empathy in BPJS healthcare services. For example, when a user complaint is received, it is quickly responded to and processed [4]. Firdha (2019) showed that 158 respondents (50%) felt helped by the Mobile JKN application, and 116 respondents (36%) felt greatly helped. Therefore, respondents felt significantly assisted by the Mobile JKN [1]. Based on Lisa's (2019) and Firdha's (2019) theories, previous research on Mobile JKN aligns with this study. The service is of high quality because the system ensures security.

Researchers found that Mobile JKN users at health centers in Madiun City feel that the application helps them use the service. Users are satisfied with the comprehensive information and trusted security quality Mobile JKN provides. However, the application information needs to be sufficiently available to the residents of Madiun City. Thus, residents need proper procedures, and health centers should provide easily understandable information about existing deficiencies and update BPJS more frequently to optimize the information in the application.

The data are shown in Table 5 based on the questionnaire results on the Service Quality variable of Mobile JKN users at health centers in Madiun City.

Table 5. Frequency Distribution of Service Quality Variable Ratings

No	Pertanyaan	Frekuensi				
		STS	TS	N	S	SS
1	Aplikasi <i>Mobile</i> JKN terjamin keamanannya	0	1	9	27	9
2	Keluhan konsumen pada aplikasi <i>Mobile</i> JKN langsung diproses dengan cepat	0	1	4	30	11
3	Respons yang diberikan terhadap keluhan cepat tanggap	0	2	5	26	13

(Source: Primary Questionnaire Data)

Based on Table 5, which contains questionnaire data, the data were entered into a tabulation table and calculated using *Excel* formulas. The results are shown in Table 6. Table 6. Frequency Distribution $f(x)$ of Service Quality

NO	STS	TS	N	S	SS	Total Skor Indikator
	1	2	3	4	5	
1	0	2	27	108	45	182
2	0	2	12	120	55	189
3	0	4	15	104	65	188
jumlah $\Sigma(\Sigma(f))$						559

(Source: Primary Data)

According to Krisdayanti (2021), the Mobile National Health Insurance (JKN) application, which aims to facilitate BPJS Health participants' services receipt, has also received numerous complaints from the public or BPJS Health participants. The branch office addresses any complaints received through the Mobile JKN application according to its jurisdiction [3].

Lisa (2019) stated that the quality of the information in the Mobile JKN application includes providing complete information, using language easily understood by all groups, offering information that meets users' needs, and ensuring that the information is accurate and quickly accessible [4]. Based on the theories of Krisdayanti (2021) and Lisa (2019), previous research findings on the Mobile JKN application align with this study. The Service Quality variable results evidence this. Previous researchers have indicated that Mobile JKN users find the information available accurately and quickly accessible, facilitating BPJS Health participants in receiving services.

Researchers found that users of the Mobile JKN application at health centers in Madiun City feel that it helps them with registration because it processes requests quickly. Users appreciate not having to wait long to register patients. However, users feel that the security of the Mobile JKN application still needs to be improved in terms of technology acceptance. Therefore, further actions are needed to enhance the application's security. Based on the research using questionnaires among Mobile JKN application users at Sukosari and Manguharjo health centers in Madiun City, the overall data, including System Quality, Information Quality, and Service Quality, will be calculated using effectiveness formulas, which will be presented below.

$$\begin{aligned} \text{Effectiveness} &= \frac{2181}{5 \times 12 \times 46} \times 100\% \\ &= \frac{2181}{2760} \times 100\% \\ &= 79,02\% \end{aligned}$$

Based on the calculations using the effectiveness formula, it is determined that Mobile JKN users at health centers in Madiun City have successfully adopted the application from the perspectives of System Quality, Information Quality, and Service Quality, with an effectiveness percentage of 79.02%. This falls within the 61% - 80% range, indicating a successful implementation

IV. CONCLUSIONS AND SUGGESTIONS

Based on the overall data analysis, the effectiveness of Mobile JKN users is considered "successful," with a percentage value of 79.02%. This is attributed to the fact that Mobile JKN allows quick application access. Additionally, the information provided by Mobile JKN is reliable, and consumer complaints are processed promptly. Conversely, the effectiveness of Mobile JKN registration staff is deemed "successful," with a percentage value of 87.61%. This success is because Mobile JKN is not time-consuming, its accuracy is dependable, and consumer complaints are handled quickly. The Madiun City Health Center should encourage the public to use the Mobile JKN application by promoting it through leaflets or social media. The Center should also schedule socialization sessions regarding the application. Furthermore, the Center should ensure it stays updated with BPJS and establish follow-up measures concerning the security of the Mobile JKN application.

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