



The Relationship Between Information System Success Factors and the Use of the JKN Mobile Application in the Duingi Community Health Center Work Area of Gorontalo City

Farti I. Hurudji^{1*}, Herlina Jusuf², Putri Ayuningtias Mahdang³

¹Fakultas Olahraga Dan Kesehatan, Universitas Negeri Gorontalo

*Email: fartihurudji656@gmail.com

Article Info

Article history:

Received 02 Oct, 2025

Revised 21 Nov, 2025

Accepted 27 Dec, 2025

Keywords:

Information Systems, Mobile, JKN, BPJS Kesehatan

ABSTRACT

The Mobile JKN application is an innovation of BPJS Kesehatan digital services that aims to make it easier for participants to access services independently. The success of the implementation of information systems such as Mobile JKN can be analyzed using the DeLone and McLean models which assess six main aspects, namely system quality, information quality, service quality, usage, user satisfaction, and net benefits. The use of the Mobile JKN application in the work area of the Duingi Health Center is still relatively low, so it is necessary to analyze factors related to its utilization. This study aims to analyze the relationship between the success factor of the information system and the use of the Mobile JKN application in the working area of the Duingi Health Center, Gorontalo City.

This study uses a cross-sectional design with a quantitative approach. The research population is 336 active users of the Mobile JKN application registered at the FKTP Duingi Health Center, with a sample of 183 respondents selected using purposive sampling techniques. Data analysis was carried out using the Spearman Rank test.

The results showed that system quality ($p=0.001$), information quality ($p=0.003$), service quality ($p=0.000$), usage ($p=0.001$), user satisfaction ($p=0.001$), and net benefits ($p=0.000$) had a significant relationship with the use of Mobile JKN applications ($p>0.005$). Overall, the success factor of the information system was significantly related to the use of the Mobile JKN application with a relationship strength of $r=0.407$, which was included in the sufficient category based on the correlation value criteria.

BPJS Kesehatan and Duingi Health Center are advised to improve socialization, mentoring, and user understanding so that the use of all features of the Mobile JKN application can be more optimal.

INTRODUCTION

National Health Insurance (JKN) is a government program that aims to provide comprehensive health protection for all Indonesian people to live a healthy, productive, and prosperous life (SJSN Law No. 40 of 2004). This program began to be held on January 1, 2014 and is managed by BPJS Kesehatan as an organizer of social security in the health sector (Government of the Republic of Indonesia, 2011; Solechan, 2019). As of October 2024, the number of JKN participants will reach 277,538,004 people throughout Indonesia, showing the breadth of the scope of this program in providing health protection for the community (BPJS Kesehatan, 2024). Along with the increasing number of participants, BPJS Kesehatan seeks to improve the quality of services through the use of information technology by launching the Mobile JKN application as a form of digital transformation of services (Febriansyah, 2024).

The Mobile JKN application was launched in 2017 as a smartphone-based application that provides various conveniences for participants, such as access to membership information, payment of contributions, data changes, online queues, submission of complaints, and digital cards in place of physical cards.

(Febriansyah, 2024). The presence of this application is expected to overcome the administrative constraints of the community and improve the digital service experience, but the success of its implementation still depends on the extent to which participants use it.

Several studies show that the use of Mobile JKN applications is still low. Wulandari (2019) found that although services have increased, the application implementation has not reached the target. Sari et al. (2019) also reported low usage in Bogor Regency because participants were reluctant to use the application. In addition, Julianti (2023) and Widyastuti (2023) revealed that even though the quality of the system and information is considered good, users still face network constraints and the benefits of the application are not optimal. According to Narmansyah (2023), the low utilization of Mobile JKN applications can be influenced by information system success factors such as system quality, information quality, and service quality. These factors determine how effectively information systems can be accepted and used by society.

In assessing the success of the implementation of information systems such as Mobile JKN, there are several commonly used measurement models, namely the IS Impact Model, the HOT-Fit Model, and the DeLone and McLean Model. The IS Impact Model assesses the success of a system based on system quality, information quality, user satisfaction, and individual and organizational impact. The HOT-Fit Model emphasizes the fit between human, organizational, and technological aspects. Meanwhile, the DeLone and McLean Model (1992; updated 2003) is the most widely used model because of its simple yet comprehensive structure in assessing the success of information systems (Eom, 2013; Graduates, 2020). The model includes six main elements: system quality, which describes the performance of the Mobile JKN application from the hardware and software side; the quality of the information, which assesses the accuracy and relevance of the information presented; service quality, which reflects the quality of service received by users (Narmansyah et al., 2022). User (use), can refer to how often users use the Mobile JKN application. user satisfaction, which describes the response to the application performance; and net benefits, which shows the impact of using the application on users (Feisha, 2023).

Based on data from BPJS Kesehatan Gorontalo Branch (2025), out of a total of 204,360 residents of Gorontalo City, 190,743 people (93.34%) are registered as JKN participants, and 32,871 participants are recorded using the Mobile JKN application throughout Gorontalo City. Especially in the work area of the Duingingi Health Center, out of 2,556 registered users, only 336 are active in the January-June 2025 period.

The results of observations and interviews on May 20, 2025 showed that on the day of the observation, only three patients came using the JKN Mobile Application for registration, while the majority still came directly to the counter. Obstacles that often arise include difficulty logging in due to forgetting an email or cellphone number, not appearing an OTP code, to automatic queue cancellation without notice. In addition, the lack of socialization to vulnerable groups and limited technical support at the health center level have also worsened the level of application utilization. This indicates that even though the Mobile JKN application has been available as a digital service innovation, its use is still not optimal due to the low understanding and trust of users in the existing system. Efforts are needed to improve socialization, education, and user assistance so that this application can be used more effectively in supporting health services at the Duingingi Health Center.

An initial survey of 10 active users showed that only 5 people made good use of the app, although the majority rated the quality of the system and information as good. This shows the gap between the perception of quality and the utilization of the application. Therefore, this study uses the DeLone and McLean (2003) Model which explains how the factors of system quality, information quality, service quality, usage, user satisfaction, and net benefits, the use of Mobile JKN applications, especially in the Duingingi Health Center. This model is considered the most relevant to explain the phenomenon of low utilization of Mobile JKN applications in the work area of the Duingingi Health Center, where users' perceptions of the quality of the application are not always in line with its utilization. Based on this description, the researcher is interested in conducting a research entitled: "The Relationship between Information System Success Factors and the Utilization of Mobile JKN Applications in the Working Area of the Duingingi Health Center, Gorontalo City."

RESEARCH METHODS

This research was carried out in the working area of the Duingingi Health Center, Gorontalo City in August 2025 which is a quantitative research with a cross sectional study design that aims to analyze the relationship between information system success factors and the use of Mobile JKN applications based on the DeLone and McLean Information System Success Models. The research population is all active users of the Mobile JKN application registered at the Duingingi Health Center as many as 336 people. The sample size was determined using the Slovin formula so that 183 respondents were obtained. The sampling technique uses purposive sampling with the inclusion criteria of JKN participants who are registered at the Duingingi FKTP, domiciled in the work area of the Duingingi Health Center, have used one of the features of the Mobile JKN application, and are willing to be respondents. The exclusion criteria are participants who give incomplete answers to the questionnaire or experience communication disorders or health conditions that prevent the filling out of the questionnaire. Data analysis was carried out univariate and bivariate using the Spearman correlation test.

RESEARCH RESULTS

Respondent Characteristics

Table 1 Characteristics of Respondents

Characteristics	Frequency	
	(n)	(%)
Gender		
Male – Male	84	45,9
Women	99	54,1
Age		
15-25	55	30,1
26-35	85	46,4
36-45	41	22,4
>45	2	1,1
Education		
Junior High School	11	6,0
High School	74	40,4
D3	30	16,4
S1	51	27,9
S2	17	9,3
Jobs		
IRT	23	12,6
PNS	50	27,3
Students	28	15,3
Self-employed	11	6,0
Others	71	38,8

Premiere Date (2025)

Based on the results of the distribution of respondent characteristics, it is known that the majority of respondents are female as many as 99 respondents (54.1%), while male as many as 84 respondents (45.9%). In addition, the majority of respondents were in the age group of 26-35 years old as many as 85 respondents (46.4%), while the least age group was more than 45 years old, namely 2 respondents (1.1%). Based on education level, the majority of respondents had a high school education of 74 respondents (40.4%), while the lowest level of education was junior high school with 11 respondents (6%). Meanwhile, based on the type of job, the majority of respondents worked in other categories as many as 71 respondents (38.8%), and the least were self-employed as many as 11 respondents (6%).

Univariate Analysis

Table 2 Frequency Distribution and Percentage of Respondents Based on Research Variables

Variable	Frequency	
	(n)	(%)
System Quality		
Good	177	96,7
Not Good	6	3,3
Quality of Information		
Good	172	94,0
Not Good	11	6,0
Quality of Service		
Good	166	90,7
Not Good	17	9,3
Usage		
Using	177	96,7
Less Usage	6	3,3
User Satisfaction		
Satisfied	173	94,5
Dissatisfied	10	5,5
Net Benefits		
Good	169	92,3

Not Good	14	7,7
Utilization of JKN Mobile Application		
Utilize	158	86,3
Underutilization	25	13,7

Premiere Date (2025)

Based on Table 2, it was obtained that most respondents rated the quality of the system in the Mobile JKN application as good as 177 respondents (96.7%), while 6 respondents (3.3%) rated it as poor. For the quality of information, respondents also rated 172 respondents (94.0%) as good as 172 respondents (94.0%), while 11 respondents (6.0%) rated them as poor. Similarly, on the quality of service, the majority of respondents rated it as good as 166 respondents (90.7%) and 17 respondents (9.3%) rated it as poor. In terms of usage, most respondents used the Mobile JKN application as many as 177 respondents (96.7%), while 6 respondents (3.3%) used it less. For user satisfaction, respondents were satisfied as many as 173 respondents (94.5%), while 10 respondents (5.5%) stated that they were not satisfied. Respondents rated the net benefits of this application as good as 169 respondents (92.3%), while 14 respondents (7.7%) rated it as poor. Meanwhile, 158 respondents (86.3%) used the JKN mobile application, and 25 respondents (13.7%) did not use it.

Bivariate Analysis

Table 3. The relationship between each factor of the success of the information system and the use of the JKN Mobile Application

Variable	Utilization of JKN Mobile Application				Total		P
	Utilize		Underutilization		N	%	
	n	%	n	%			
System Quality							
Good	156	85,2	21	11,5	177	96,7	0,001
Not Good	2	1,1	4	2,2	6	3,3	
Quality of Information							
Good	155	84,7	17	9,3	172	94,0	0,003
Not Good	3	1,6	8	4,4	11	6,0	
Quality of Service							
Good	150	82,0	16	8,7	166	90,7	0,000
Not Good	8	4,4	9	4,9	17	9,3	
Usage							
Using	157	85,8	20	10,9	177	96,7	0,001
Less Usage	1	0,5	5	2,7	6	3,3	
User Satisfaction							
Satisfied	156	85,2	17	9,3	173	94,5	0,001
Dissatisfied	2	1,1	8	4,4	10	5,5	
Net Benefits							
Good	154	84,2	15	8,2	169	92,3	0,000
Not Good	4	2,2	10	5,5	14	7,7	

Premiere Date (2025)

Table 4 Relationship of All Success Factors with the Utilization of Mobile JKN Applications

Variable Relationships	P-value and correlation
Information System Success Factors with the Utilization of Mobile JKN Application (X1-X6)	$P = 0.000$ $r = 0.407$

DISCUSSION

The Relationship between System Quality and the Utilization of Mobile JKN Applications in the Working Area of the Duingi Health Center, Gorontalo City

Based on the Spearman Rho test, a p-value of =0.001 was obtained, which means that there is a significant relationship between the quality of the system and the use of the Mobile JKN application ($p < 0.05$). Good system quality, such as access speed, ease of login, and clear navigation, make it easier for users to operate the application, thus increasing its utilization.

According to the theory of Diffusion of Innovation (Rogers, 2003), the adoption of innovation is influenced by the level of convenience and suitability of the system. The simpler and more user-friendly, the higher the utilization rate. In this context, the good quality of the Mobile JKN system encourages an increase in application usage (Widyastuti, 2024).

These results are in line with the research of Muhammad Islam Salim (2014), Wara, Kalangi & Gamaliel (2021), and Setyo & Rahmawati (2015) which shows that the quality of the system is positively and significantly related to the use of digital health applications.

Based on the results of the above research, out of 177 respondents who assessed the quality of the Mobile JKN system as good, there were still 21 respondents (11.5%) who did not use the application because it was more convenient to come directly to health facilities. On the other hand, of the 6 respondents who rated it as not good, there were 2 respondents (1.1%) who still used the application because they needed it for online registration and access to membership information.

The Relationship between Information Quality and the Utilization of Mobile JKN Applications in the Working Area of the Duingi Health Center, Gorontalo City

Based on the Spearman Rho test, a p-value of =0.003 was obtained, which means that there is a significant relationship between the quality of information and the use of the Mobile JKN application ($p < 0.05$). This means that the better the quality of the information presented in the application, the higher the utilization rate. Accurate, relevant, and easy-to-understand information increases trust and encourages users to take advantage of the app's services.

According to the theory of Information Quality by Wang and Strong (1996), the quality of information that is accurate, complete, timely, and easy to understand will increase user trust. Thus, the better the quality of information on Mobile JKN, the higher the tendency of users to use it (Ernawati, 2020).

This finding is in line with Purba (2023) research in Jambi City which shows that information quality has a significant effect on the use of Mobile JKN. Similar results were also found by Wara, Kalangi, and Gamaliel (2021) in Gowa Regency and Salim (2014) in Makassar City, both of which stated that accurate, clear, and easy-to-understand information plays an important role in increasing the use of applications (Purba, 2023).

Based on cross-tabulation, out of 172 respondents who assessed the quality of information as good, there were still 17 respondents (9.3%) who did not use the application. This shows that even though the information is considered clear, some users feel that the data has not been updated and are reluctant to rely on the app completely. On the other hand, of the 11 respondents who assessed the quality of information as poor, there were 3 respondents (1.6%) who continued to use the application because it was considered more efficient to check membership data without having to come to the BPJS office.

The Relationship between Service Quality and the Utilization of the JKN Mobile Application in the Working Area of the Duingi Health Center, Gorontalo City

Based on the Spearman Rho test, a p-value of =0.000 was obtained, which means that there is a significant relationship between the quality of information and the use of the Mobile JKN application ($p < 0.05$). This happens because the fast and reliable service makes users feel comfortable and confident to continue using the application.

According to Technology Continuance Theory (Liao, Chen, & Yen, 2007), reliable, responsive, and trustworthy service quality will increase users' perception of usefulness and confidence in the application, thereby encouraging its continuous utilization (Liao, 2009).

This research is in line with Anastasya et al. (2023) in Jambi City which found that the dimensions of

service quality such as efficiency and fulfillment have a significant effect on the use of Mobile JKN. Similar results were also obtained by Inan et al. (2023) in a mobile banking study, which showed that service quality is directly related to the sustainability of application use, thus reinforcing that the better the service quality, the higher the utilization of Mobile JKN (Anastasya et al., 2023).

Based on cross-tabulation, of the 166 respondents who assessed the quality of the Mobile JKN application service as good, there were still 16 respondents (8.7%) who did not use it. This happens because even though the service is considered reliable and responsive, some respondents still lack trust in digital systems, for example worried about technical problems when needed. Other factors such as experience and habits, such as being more comfortable interacting directly with officers, also influence. This condition shows the difference between the perception of good service quality and the still limited utilization behavior. On the other hand, of the 17 respondents who rated the service quality as poor, 8 respondents (4.4%) still used the Mobile JKN application. This suggests that although the user experience is less satisfactory, practical needs and environmental influences, such as family or friends who are already familiar with it, encourage respondents to try using the app.

The Relationship between Use and Utilization of Mobile JKN Applications in the Working Area of the Dungi Health Center, Gorontalo City

Based on the Spearman Rho test, a p -value = 0.001 was obtained, which means that there is a significant relationship between the use and utilization of the Mobile JKN application ($p < 0.05$). The relationship between the use and utilization of the Mobile JKN application arises because the more often a participant uses the application, the more familiar they are with the available features, thus encouraging them to be more active in utilizing the application.

According to the Technology Acceptance Model (TAM) proposed by Davis (1989), the use of a system or application is influenced by an individual's perception of usability and perceived ease of use. The more often a person uses the application, the more likely they are to take advantage of the available features to meet their needs (Puspitasari, 2020).

The results of this study are in line with Putri (2020) who found a relationship between the use and utilization of the Mobile JKN application, although some respondents only used the online queue feature. These findings are reinforced by Alda (2022) and Oxtavina (2022) who stated that the more often participants use the app and feel its convenience, the more likely they are to make optimal use of it (Oxtavina, 2022).

Based on cross-tabulation, of the 177 respondents who used the Mobile JKN application, there were still 20 respondents (10.9%) who did not use it. This happens because even though they are actively opening and using the application, some respondents only focus on the main feature that is considered the most important, namely the online queue feature, so that the overall use of the application has not been maximized. On the other hand, of the 6 respondents who are included in the category of not using the application, there is 1 respondent (0.5%) who still uses the Mobile JKN application. This happens because even though they rarely use the app, respondents still use it occasionally for important activities such as changing participant data when an urgent need arises.

The Relationship between User Satisfaction and the Utilization of the JKN Mobile Application in the Working Area of the Dungi Health Center, Gorontalo City

Based on the results of the statistical test, the p -value of the spearman rho test was 0.001. This shows that there is a significant relationship between user satisfaction and the use of Mobile JKN applications (p -value < 0.05). When users are satisfied that the app is effective, efficient, and provides all-around convenience, they are encouraged to use it more often and solve various administrative needs through the app rather than manually.

This positive relationship is in line with the Expectation-Disconfirmation Theory (Oliver, 1980) which states that when the performance of the application exceeds the user's expectations, there is a positive disconfirmation that increases satisfaction and encourages optimal use of the application (Prakoso, 2018).

Handasari's research (2024) is in line with these results, showing that user satisfaction is related to the use of the Mobile JKN application even though there are still obstacles such as complicated logins and less intuitive displays. This finding is supported by Yuniarti, Putri, and Hartono (2023) who reported that 69% of respondents were satisfied with the digitization of services, emphasizing that the higher user satisfaction, the more likely they are to make optimal use of the application (Handasari, 2024).

Of the 173 respondents who were satisfied with the Mobile JKN application, for the most part, there were 17 respondents (9.8%) who still did not use it. This is likely due to a lack of motivation or reminders, as well as the perception that using the app takes longer than coming directly to a healthcare facility. On the other hand, of the 10 respondents who felt dissatisfied, there were 2 respondents (1.1%) who still used the application. This happens when users need mandatory services such as referral letters or online queues; Even though the process is long and lowers satisfaction, they still use the app because of urgent needs.

The Relationship between Net Benefits and the Utilization of the JKN Mobile Application in the Working Area of the Duingi Health Center, Gorontalo City

The results of the statistical test obtained a p-value from the spearman rho test of 0.000. This shows that there is a significant relationship between net benefits and the use of JKN mobile applications ($p\text{-value} < 0.05$). This shows that positive experiences such as ease of administration, increased independence, and ability development encourage users to use the application more regularly, the greater the benefits felt, the higher the motivation to continue using Mobile JKN.

This positive relationship is in line with the Technology-to-Performance Chain (Goodhue & Thompson, 1995), which explains that when users feel real benefits such as efficiency, independence, and ease in taking care of health administration, they are encouraged to continue to use the Mobile JKN application consistently (Ummah, 2019).

The research shows that the net benefit indicator of the Mobile JKN application reaches 72.07%, indicating that most respondents feel a positive impact such as ease of access to services and increased independence. This finding is in line with Handasari (2024) who stated that despite technical constraints, the majority of users still feel benefits in the form of motivation and improved digital skills, supporting the concept that the greater the benefits felt, the higher the tendency of users to use the Mobile JKN application (Handasari, 2024).

Based on cross-tabulation, of the 169 respondents who assessed the net benefits as good, there were 15 respondents (8.2%) who were still underutilized. This happens because the benefits felt are limited to only one feature, such as online queues, so even though users feel helped and more independent, the use of the application is not thorough. On the other hand, of the 14 respondents who rated the net benefits as poor, only 4 respondents (2.2%) took advantage of them. Users who continue to use the application even though they consider the benefits to be less good may still not understand how to use it and have not yet experienced the full benefits, but still use it because of practical needs such as accessing services quickly without having to come to a health facility.

The Relationship of Information System Success Factors with the Utilization of Mobile JKN Applications in the Working Area of the Duingi Health Center, Gorontalo City

Based on table 3.4 above, the p-value of the Spearman Rho test is 0.000. This shows that there is a significant relationship between the success factor of the information system as a whole and the use of the Mobile JKN application ($p\text{-value} < 0.05$). The correlation coefficient value of 0.407 indicates that the relationship between the two is positive and is classified as sufficient, based on the criterion of the level of closeness of the relationship, which is 0.40–0.599 categorized as a sufficient relationship. While this relationship is significant, its strength falls into the category of sufficient, which means that the success of information systems encourages the use of applications, but does not necessarily make users take full advantage of all the features. This condition can be explained in two ways. First, the application utilization instrument was only measured through three question items, so the variation in respondents' scores was limited. Second, the phenomenon in the field shows that the majority of participants only use one main feature, namely online queues, while other features such as premium payment checks, and data changes are rarely used directly by the study respondents.

"Handayani, Meigasari, Pinem, Hidayanto, & Ayuningtyas (2018) in their research entitled Critical Success Factors for the Implementation of Mobile Health JKN in Indonesia found that the success of information systems is positively related to the use of applications. The same thing is also expressed by Ojo (2017) who states that the success of information systems has a direct effect on the use of applications by users (Handayani et al., 2018).

CONCLUSION

The results of the study show that there is a relationship between system quality, information quality, service quality, use, user satisfaction, and net benefits with the use of the Mobile JKN application in the Duingi Health Center, Gorontalo City. Overall, the variables X1 to X6 tested together showed a relationship with sufficient strength based on the correlation value criteria.

The suggestion for BPJS Kesehatan is more focused on evaluating the use of the Mobile JKN application at the Duingi Health Center, because even though some participants have used it, the use is still limited to the main features such as online queues. BPJS needs to increase socialization and guidance so that users understand all available features. In addition, the Duingi Health Center is expected to continue to provide direct assistance, especially for the elderly or participants who are less familiar with technology, as well as encourage family members who are more knowledgeable to help use the application. The provision of accompanying officers or short guides is important so that users are more comfortable and the use of the Mobile JKN application increases optimally.

BIBLIOGRAPHY

- Anastasya, D., Husaein, A., & Aryani, L. (2023). Analysis of the influence of the quality of Mobile JKN application services using the E-Servqual method for users in Jambi City. *Journal of Information Systems Management*, 8(2), 87–96.
- Ernawati, M. (2020). The application of the DeLone and McLean model to measure the success of a student's mobile-based academic application. *Journal of IKRA-ITH Informatics*, 5(18), 58–67
- Febriansyah, M. (2024). Health service innovation through the Mobile JKN application at the BPJS Kesehatan Office of Bantaeng Regency. [Thesis]. University of Muhammadiyah Makassar.
- Feisha, A. L. (2023). Factors related to the use of the Mobile JKN application at BPJS Kesehatan in Ternate City [Thesis]. Khairun University.
- Handasari, S. P., & Wulandari, R. (2024). Evaluation of the Usability and User Experience of the National Health Insurance Mobile Application in Indonesia. *Indonesian Journal of Public Health*, 20(1), 1–10.
- Handayani, P. W., Meigasari, D. A., Pinem, A. A., Hidayanto, A. N., & Ayuningtyas, D. (2018). Critical success factors for mobile health implementation in Indonesia. *Heliyon*, 4(11), e00981.
- Liao, C., Palvia, P., & Chen, J. L. (2009). Information technology adoption behavior life cycle: Toward a technology continuance theory (TCT).
- Narmansyah, S. (2022). Analysis of the use of JKN Mobile information system in Makassar City. *Healthy People: Journal of Public Health*, 1(3), 196–204.
- Prakoso, B. S. (2018). Satisfaction with e-Government online services at the Indonesian Ministry of Religious Affairs. [Thesis]. Sepuluh Nopember Institute of Technology.
- Purba, A. S. (2023). Analysis of the use of the Mobile JKN application information system in Jambi City [Thesis]. University of Jambi. University of Jambi Repository.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Solechan S. (2019). Social Security Administration Agency (BPJS) Health as a public service. *Administrative Law & Governance Journal*. 2(4):686–696.
- Ummah, M. S. (2019). Measuring the success of the implementation of the institutional repository system at UIN Syarif Hidayatullah Jakarta using the Human Organization Technology (HOT) Fit Model. [Thesis]. UIN Syarif Hidayatullah Jakarta.
- Widyastuti, P. (2024). Analysis of factors for the use of the JKN Mobile application in outpatient treatment at Ananda Maternal and Child Hospital, Makassar City. [Thesis]. UIN Alauddin Makassar.