

The Influence Of The UTAUT Model, Service Quality, Information Quality, And System Quality To Intention To Adopt And Intention To Use Mobile JKN With Moderation Of Patient Health Value

Nuri Lestariningsih¹, Citra Kusuma Dewi^{2*}

^{1,2} Master of Management Study Program, School of Economics and Business, Telkom University, Bandung Indonesia

*Corresponding Author:

Email: citrakusumadewi@telkomuniversity.ac.id

Abstract.

Digitalization of health services offers convenience for users, but not all new technological innovations can be easily accepted by the community. This study aims to assess how the influence of performance expectancy, effort expectancy, social influence, facilitating conditions, service quality, information quality, system quality, patient health value, on intention to adopt and intention to use BPJS Health participants to use the National Health Insurance (JKN) Mobile application. The sampling technique used in the study was purposive sampling, with the population being users of the National Health Insurance (JKN) Mobile application in Indonesia. The data analysis technique used is Structural Equation Modeling Partial Least Square (SEM-PLS), then the research instrument used refers to the UTAUT model and the Updated Delone and McLean IS Success Model (modified) used in Alnaser dkk., (2024) study.

Keywords: Performance Expectancy; Effort Expectancy; Social Influence; Intention to Adopt and Intention to Use.

I. INTRODUCTION

The rapid development of information technology has had a significant impact on various aspects of human life, including changes in people's behavior in accessing public services. The digital era is driving innovation in various sectors, including healthcare, which is now increasingly reliant on digital platforms to meet community needs more quickly and efficiently (Alzahrani et al., 2022). This digitalization allows the public to gain easier and faster access to services through internet-based technology. One such digital innovation is JKN Mobile, an application designed by BPJS Kesehatan to facilitate participant access to health insurance services in Indonesia. BPJS Kesehatan (Social Security Agency for Health) is a government agency tasked with administering the National Health Insurance (JKN) program for all Indonesians. Implementing Law Number 40 of 2004 concerning the National Social Security System, BPJS Kesehatan continues to innovate, including introducing the JKN Mobile application as a digital solution to facilitate participants' access to health information and services. This application offers various features, such as participant registration, checking participant status, searching for the nearest hospital, online queuing, and online premium payments (Hakim et al., 2024). Mobile JKN is an official application aimed at facilitating public access to various healthcare services provided by BPJS Kesehatan.

The app's key features include new participant registration, checking participant status, searching for nearby healthcare facilities, online queuing, and easy premium payments. Furthermore, the app also offers a participant data change service and location information for healthcare facilities registered as BPJS Kesehatan partners. This innovation is expected to improve the quality of healthcare services and provide broader access to the public (Hakim et al., 2024). However, the adoption rate of the JKN Mobile application remains low. Based on data from Kompas.com, as of August 1, 2024, the number of National Health Insurance (JKN) participants has reached 268 million people, or approximately 94.87% of Indonesia's total population (Rahayu & Setiawan, 2024). Meanwhile, the number of JKN Mobile users is only around 16,346,826 (Bahri et al., 2022), which, based on BPJS Kesehatan data showing 277,859,856 registered JKN participants, represents just 5.88% of the total—a figure that indicates the application's adoption is still far from optimal (BPJS Kesehatan, n.d.).

In comparison, other health applications such as Halodoc and Alodokter have over 20 million and 30 million monthly active users, respectively, in 2024, despite offering more limited service coverage than JKN Mobile (Puspa & Jatmiko, 2024; Alodokter, n.d.). This suggests that the public tends to favor applications that are easier to use and more responsive to their needs. Interest in use reflects public willingness to utilize JKN Mobile to access BPJS Kesehatan services, yet the low user numbers contrast sharply with this potential, which could lead to future problems—such as increased queues at BPJS branch offices and heavier workloads for staff (Nikmah et al., 2024). According to Alnaser et al. (2024), in the context of e-health apps like JKN Mobile, usage intention plays a crucial role in adoption, with sustained use more likely among those who initially intend to adopt the technology. Several factors influence user interest in adopting such services, including service quality, information quality, system quality, performance expectancy, social influence, and facilitating conditions. Overall, like many new digital services, BPJS still faces challenges in promoting JKN Mobile, as evidenced by numerous user complaints in the app’s review section on the App Store.



Fig 1. JKN Mobile Dashboard Display

Designs offered by JKN Mobile offer simplicity. However, unfortunately, with too many menus being offered, this can be a hindrance. *user* who have never used this application or rarely use it. This is because the average JKN *user Mobile* will more frequently use features related to health measures, such as Queue Registration, Health Facility Location Information, or Contribution Payments that are not directly displayed (Dzilhaq, 2024). From Figure 1.1, there are several things that can be of concern, the first of which is the reliability of the JKN application. *Mobile*, from *review* that users complain about *error* what happens when the process is carried out *log in*, this shows *system quality* shortcomings of JKN *Mobile*. It's still unreliable. Secondly, in terms of functionality, users have complained about the facial verification system not working and the OTP code not being sent to users. This indicates a functional deficiency in the JKN application. *Mobile*. Apart from the appearance and features of the JKN Mobile application, there are Analyzing user reviews of the JKN Mobile app is crucial for understanding public perception of the app's performance based on the distribution of ratings. Data scraping from JKN Mobile user reviews on the App Store provides a clearer picture of user satisfaction and complaints. The following is the distribution of ratings from JKN Mobile user reviews:

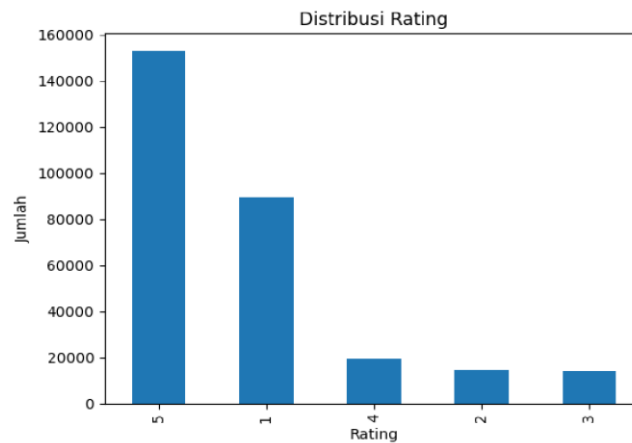


Fig 2. JKN Mobile Rating Data Scrape Results from the Appstore

The graph above shows the distribution of ratings from user reviews of the JKN Mobile app. Rating 5 is the most common category, with over 140,000 reviews. However, rating 1 also represents a significant number, with around 90,000 reviews. Meanwhile, ratings 2, 3, and 4 are relatively small compared to the other two categories. This distribution indicates a stratification among JKN Mobile app users. Most users gave the maximum rating (5), indicating satisfaction with the app. However, the high number of reviews with a rating of 1 also indicates many users were dissatisfied. This is likely related to technical issues such as login errors, problematic facial verification systems, and less-than-optimal user experiences, as mentioned in user reviews. This finding emphasizes the importance of improving system quality to enhance the overall user experience.

Table 1. JKN Mobile User Reviews

Category	Negative	Positive	Example of a Negative Review	Example of a Positive Review
Information Quality	6.460	4.717	"The app is actually turning. This is a health app, how come it's weird?"	"Easier to check information"
Service Quality	7.293	9.163	"My phone number was rejected because it was already in use, what should I do?"	"steady"
Other	104.813	158.749	"The app is bad, the service is very slow, not satisfactory."	"Good service"

The data shows that there were 6,460 negative and 4,717 positive reviews related to *Information Quality*. This indicates that although some users appreciate the ease of accessing information—such as not needing to show a card when using healthcare services—many still complain about app instability and difficulty retrieving information. This aligns with Dewi et al. (2022), who emphasized the importance of considering cultural values and consumer beliefs in service system design. Regarding *Service Quality*, there were 7,293 negative and 9,163 positive reviews. While users expressed concerns about poor integration between the app and healthcare facilities, many still valued the convenience of managing data without visiting branch offices. In the *Other* category, the review numbers were significantly higher, with 104,813 negative and 158,749 positive comments, indicating that most feedback centered on aspects beyond information and service quality—such as user interface, technical performance, and overall user experience. According to Indrawati, Yones, and Muthaiyah (2023), information quality significantly influences service adoption, which ultimately affects the intention to use or purchase the service. In essence, the digital era brings convenience through various technologies, but not all new technologies are readily accepted by society, as their adoption requires time and adjustment (Juhri & Dewi, 2017).

Observations of JKN Mobile user reviews on the App Store show that users generally expect the app to facilitate access for check-ups and treatment. However, this expectation contrasts with the actual reviews. A study by Ramdhan et al. (2024), using a word cloud analysis with NVivo on the JKN Mobile review column, found that common complaints include: "JKN Mobile is difficult to open and new registration is also hard" and "JKN Mobile is not good, slow, and difficult to update to the latest version." If these issues persist, they may negatively affect performance expectancy and effort expectancy. This aligns with Pradana, Rubiyanti, and Marimon (2024), who found that attitudes and perceived behavioral control

significantly influence purchase intentions, particularly in the context of halal products. Additionally, Indrawati, Mulyani, and Putra (2022) emphasized that utilitarian motivation—based on perceived benefits and efficiency—is closely linked to performance expectancy and effort expectancy. Negative perceptions of application performance can reduce users' positive attitudes toward the system, thereby hindering their intention to use it. In other words, for both digital products and services, perceived usefulness and ease of use are key factors in shaping intention to use.

Another important factor influencing users' decisions to adopt JKN Mobile is *facilitating conditions*. Rohmah et al. (2024) found that 62% of respondents stated that the JKN Mobile service is still lacking in responsiveness to user complaints. This suggests that the digital services offered by JKN Mobile still need improvement and may influence whether users continue using the app or revert to conventional healthcare services. If JKN Mobile can optimize its services, it is highly possible that users will recommend the app to those around them (Bahri et al., 2022). The JKN Mobile application aims to encourage people to better utilize available healthcare services, thereby increasing public health awareness (Sagala et al., 2024). Alnaser et al. (2024) also found that *perceived health value* can strengthen the relationship between intention to adopt and intention to use. According to Zhang et al. (2024), health value reflects the attention individuals give to their well-being and how important they perceive health to be for happiness and life satisfaction. However, current health awareness among Indonesians remains low—of the 262 million population, only around 52 million people are conscious of the importance of health (Idawati et al., 2020). Elisa, Fakhri, and Pradana (2023) also noted that scarcity of medical resources and crisis situations can trigger impulsive health-related behaviors, especially when driven by fear or anxiety. This highlights that perceived health value can be a powerful driver for prompt decision-making and health service utilization. Therefore, JKN Mobile should work to enhance users' sense of urgency and perceived health value. Previous studies have shown that several factors contribute to low technology adoption in the healthcare sector, including service quality, information quality, system quality, performance expectancy, effort expectancy, social influence, and facilitating conditions (Alnaser et al., 2024).

In the context of JKN Mobile, these variables present significant challenges that affect users' intentions to adopt and use the app sustainably. The Unified Theory of Acceptance and Use of Technology (UTAUT) is frequently applied to analyze technology adoption. UTAUT integrates elements from several models, including the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and Social Cognitive Theory (SCT). It consists of four core constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). These constructs are useful for evaluating user intentions in adopting new technologies such as JKN Mobile. *Performance expectancy* is defined as the degree to which an individual believes that using a particular technology will improve their performance. In the case of JKN Mobile, this includes the app's usefulness in accessing health services and simplifying user-related activities. *Effort expectancy* refers to the ease of using the application, such as intuitive interfaces and user-friendly navigation. *Social influence* relates to how much individuals are influenced by the opinions of others, such as family, friends, or healthcare workers. According to Suryawardani, Sastika, and Hanifa (2017), environmental pressures or external encouragement play a role in shaping behavioral intentions. *Facilitating conditions* refer to the availability of technical support such as guides for using the app and responsiveness to user complaints (Amalia et al., 2023). Although JKN Mobile is intended to make healthcare access easier, user reviews from platforms such as the App Store and Play Store indicate several issues. These include frequent login errors, malfunctioning facial recognition, and failure to send OTP codes (Dzilhaq, 2024).

Additionally, poor information quality—such as unresponsive services and difficulty accessing information—is commonly reported. In terms of service quality, some users also noted suboptimal integration between the app and healthcare facilities, making online registration inconvenient. Observational data further reveal that most users expect JKN Mobile to be more responsive to their needs, for example by providing features like online health consultations or direct access to drug availability information (Ramdhan et al., 2024). This is consistent with Rohmah et al. (2024), who found that 62% of respondents viewed JKN Mobile's complaint handling as inadequate. From the perspective of *perceived health value*, users who are

highly aware of their health tend to be more motivated to continue using JKN Mobile (Sagala et al., 2024). However, overall health awareness in Indonesia remains low. WHO (2024) reports that only around 20% of Indonesians actively prioritize their health, while the majority tend to act only when health issues arise. This highlights the urgent need for better public education on the benefits of digital health services. The low adoption of JKN Mobile is not solely a technical problem—it is also influenced by user behavior, social support, and the quality of service provided. This study aims to contribute to a deeper understanding of the factors influencing adoption intentions of JKN Mobile, focusing on UTAUT variables, system quality, information quality, service quality, and the moderating role of perceived health value. With this approach, it is hoped that more comprehensive strategies can be developed to increase JKN Mobile adoption in the future.

II. METHODS

This research uses a descriptive quantitative method, which aims to systematically describe social phenomena through numerical data collection and statistical analysis. This research follows a positivistic approach, with research instruments serving as data collection tools to test established hypotheses. The variables used were categorized into three groups: independent variables (performance expectancy, effort expectancy, and social influence), dependent variables (intention to use the JKN Mobile application), and moderator variables (perceived health value). The theoretical framework used refers to the UTAUT model and the DeLone & McLean IS Success Model. The population in this study was JKN Mobile app users throughout Indonesia, which reached approximately 50 million people.

The sampling technique used was non-probability sampling with a purposive sampling approach, which selects respondents based on specific criteria relevant to the research objectives. The sample size was determined using the Cochran formula with a 95% confidence level, a 5% margin of error, and an assumed population proportion of 0.5. Based on the calculations, the minimum sample size was 385 respondents. Data collection was conducted using a survey method, which systematically gathers information from respondents to understand and predict the behavior of the population being studied. The survey instrument was designed to gather data related to respondents' perceptions and experiences in using the JKN Mobile application.

III. RESULT AND DISCUSSION

3.1. Research Result

Testing Measurement Model (Inner Model)

A structural model is a model that links exogenous latent variables with endogenous latent variables or the relationship of endogenous variables with other endogenous variables. The following are the results of the full model structural test based on *the results of Bootstrapping*.

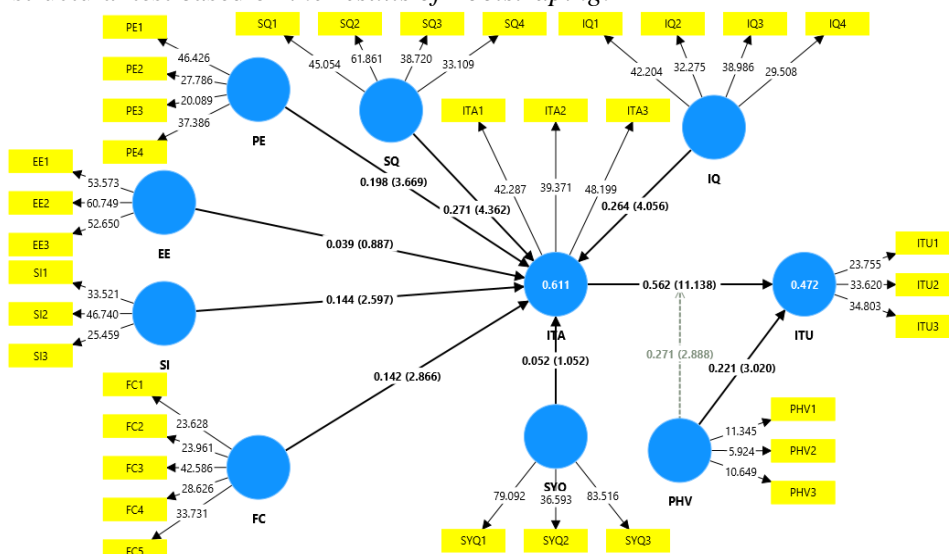


Fig 3. Full Structural Model (Bootstrapping)

From the test results, the structural model equation of this research is obtained as follows.

$$\begin{aligned} SHE &= 0,264 IQ + 0,271 SQ + 0,198 PE + 0,039 EE + 0,144 SI + 0,142 FC + 0,052 SYQ \\ THAT &= 0.562 ITA + 0.221 PHV + 0.271 ITA*PHV \end{aligned}$$

Information:

SHE	= <i>Intention To Adopt</i>	EE	= <i>Effort Expectancy</i>
THAT	= <i>Intention To Use</i>	AND	= <i>Social Influence</i>
IQ	= <i>Information Quality</i>	FC	= <i>Facilitating Condition</i>
SQ	= <i>Service Quality</i>	SYQ	= <i>System Quality</i>
ON	= <i>Performance Expectancy</i>	PHV	= <i>Patient Health Value</i>

Uji R-Square

The value of R-squares can be used to explain the influence of certain exogenous latent variables on endogenous latent variables. The following are the results of obtaining the R-square value for each endogenous variable.

Table 2. R-Square Test

Endogen	R-square
<i>Intention To Adopt</i> (SHE)	0,611
<i>Intention To Use</i> (THAT)	0,472

Based on Table 2, the R-squared value for the Intention To Adopt (ITA) variable is 0.611. This indicates that 61.1% of the variance in Intention To Adopt can be accounted for by the factors Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Service Quality, Information Quality, and System Quality, placing it within the moderate explanatory range. The remaining 38.9% is attributed to other factors not examined in this study. Meanwhile, the R-squared value for the Intention To Use (ITU) variable is 0.472, suggesting that 47.2% of the variation in Intention To Use is explained by the Intention To Adopt variable, with Patient Health Value as a moderating factor. This also falls into the moderate category, while the remaining 52.8% is influenced by variables outside the scope of this research.

Prediction relevance (Stone-Geisser's Q²)

Besides the R-squared value, the structural model evaluation of the inner model also involves assessing the predictive relevance (Q²). A Q² value greater than zero signifies that the model possesses predictive relevance. The results of the predictive relevance test using the blindfolding technique are presented in the following table:

Table 3. Q² Predictive Relevance Test

Endogenous	Q ²	Information
<i>Intention To Adopt</i> (SHE)	0,436	Have Predictive relevance
<i>Intention To Use</i> (THAT)	0,297	Have Predictive relevance

Table 2 presents the predictive relevance (Q²) values for the endogenous variables, with Intention To Adopt scoring 0.436 and Intention To Use scoring 0.297—both exceeding zero. Therefore, it can be concluded that the model demonstrates adequate predictive relevance.

Test Goodness of Fit

Model fit testing is conducted to evaluate the suitability of a research model. The assessment of model fit can be determined using the SRMR and NFI values as indicators.

Table 4. Goodness of fit Model (GoF) Test

GoF Index	Estimated model
SRMR	0,065
d_ ULS	2,628
d_ G	0,865
Chi-square	1939,474
NFI	0,739

Table 3 shows the SRMR score in the estimated model of 0.065 < 0.10 and NFI of 0.739 close to 1, thus showing that the model in the study was declared fit.

Hypothesis Test Results

Once the measurement and structural model tests have been completed, hypothesis testing can proceed to address the research questions. Below is a summary of the hypothesis testing results.

Table 5. Hypothesis Test Recapitulation

Hip.	Original sample (Path)	T statistics	P values	Conclusion Ha
<i>Direct Effect</i>				
OR > ANGRY	0,198	3,669	0,000	H1 Accepted
EE -> ITA	0,039	0,887	0,188	H2 Rejected
TO -> OUT	0,144	2,597	0,005	H3 Accepted
FC -> ITA	0,142	2,866	0,002	H4 Accepted
SQ -> ITA	0,271	4,362	0,000	H5 Accepted
IQ -> ITA	0,264	4,056	0,000	H6 Accepted
SYQ -> ITA	0,052	1,052	0,146	H7 Rejected
WE > THAT	0,562	11,138	0,000	H8 Accepted
<i>Indirect Effect</i>				
PHV x ITA -> ITU	0,271	2,888	0,002	H9 Accepted

3.2. Discussion

Based on the results of descriptive testing, it is known that respondents' assessment of performance expectancy was 84.8%, including the category *Very good*, reflecting a positive perception of the ease of JKN Mobile digital services. The effort expectancy variable obtained a value of 78.4% (*Good*), indicating the application is easy to understand and use. Social influence is rated at 79.2% (*Good*), shows the influence of the social environment in encouraging application use. The assessment of facilitating conditions was 82.3% (*Good*), indicates that the availability of supporting facilities is adequate, although there is still a need for improvement in the usage guidelines. Service quality is 78.8% (*Good*), with the aspect of officer knowledge as the main factor of satisfaction, but attention to users when experiencing problems still needs to be improved. Information quality obtained a score of 83.3% (*Good*), reflects satisfaction with the information provided by the application, although aspects of timeliness and readability could still be improved. System quality was at 80.9% (*Good*), indicates that the application has relevant features and is quite easy to use. For the intention to adopt variable, the value obtained was 82.5% (*Good*), indicating the high intention of respondents to immediately use the application. Intention to use was recorded at 84.9% (*Very good*), indicating a high commitment to continue using the application. Finally, patient health value received the highest score of 88.5% (*Very good*), reflects the strong awareness of users regarding the importance of maintaining health.

The Influence of Performance Expectancy on Intention to Adopt

The results of the hypothesis test show that Performance Expectancy has a positive and significant effect on the Intention to Adopt of JKN Mobile users. This is evidenced by *path coefficient* of 0.198, the *value-t-statistic* $3.669 > 1.65$, and *p-value* $0.000 < 0.05$. This means that the higher the perceived usefulness of the application's performance, the greater the user's intention to adopt it. This finding is consistent with the UTAUT model (Venkatesh et al., 2003) and research by Putra & Setiawan (2020) and Sari & Nugroho (2021). These findings demonstrate that user expectations regarding the performance of the JKN Mobile application are a key determinant of their intention to use it. When users perceive that the application truly helps them meet their healthcare needs, such as ease of registration, access to participant information, and finding healthcare facilities, they are more likely to believe that using JKN Mobile will improve their efficiency and quality of life. This expectation of benefits encourages users to be more open to adopting the technology. Furthermore, the perception that JKN Mobile can provide results relevant to daily needs also strengthens users' intention to use it. If users believe the app simplifies BPJS administration, speeds up service processes, and reduces queue times, they are more likely to start using it and even recommend it to others.

The Influence of Effort Expectancy on Intention to Adopt

The results of the hypothesis test show that Effort Expectancy does not have a significant effect on the Intention to Adopt of JKN Mobile users, with *path coefficient* 0.039, *t-statistic* $0.887 < 1.65$, and *p-*

$value 0.188 > 0.05$. This finding aligns with Yuan et al. (2015) and Nasution & Santoso (2020), who stated that ease of use does not always influence adoption intention, especially if users are already familiar with similar technologies. These findings indicate that ease of use is no longer a primary factor in users' decision-making regarding the adoption of the JKN Mobile app. This is because the majority of users are already accustomed to using other digital applications in their daily lives, so they no longer care about the ease or difficulty of using the JKN Mobile app. In other words, although users perceive JKN Mobile as relatively easy to learn and operate, this ease of use is taken for granted and is no longer a primary consideration in their adoption intentions. Furthermore, users tend to focus more on the tangible benefits they will receive than on the user experience itself. Indicators such as "using JKN Mobile is easy for users" or "learning JKN Mobile is not difficult" are important prerequisites, but they are not strong enough to shape adoption intentions if they are not accompanied by a perception of tangible benefits. These findings suggest that in the context of digital health services like JKN Mobile, ease of use is more of a supporting factor than a primary determinant in technology adoption decisions.

The Influence of Social Influence on Intention to Adopt

The results of the hypothesis test show that Social Influence has a positive and significant effect on the Intention to Adopt of JKN Mobile users, with $path\ coefficient\ 0,144$, $t-statistic\ 2,597 > 1.65$, and $p-value\ 0.005 < 0.05$. This means that the stronger the social influence, the higher the user's intention to adopt the application. This finding is consistent with the UTAUT model (Venkatesh et al., 2003) and research by Widodo & Arifin (2021), which emphasizes the importance of social support in digital technology adoption decisions. These findings suggest that social support plays a significant role in shaping a person's intention to start using JKN Mobile. When users perceive that their immediate environment, such as family, friends, or even their community, supports and encourages their use of the app, their trust and intention to adopt it are strengthened. Indicators such as "social support encourages users to use JKN Mobile" demonstrate that the influence of those closest to them can increase users' confidence in trying digital health services. Furthermore, respondents also indicated their willingness to recommend JKN Mobile to others, demonstrating that a single user's positive experience can spread and influence the decisions of those around them. When users believe that using the app will provide tangible benefits and improve their social standing or outlook, their likelihood of adopting JKN Mobile increases.

The Influence of Facilitating Conditions on Intention to Adopt

The results of the hypothesis test show that Facilitating Conditions have a positive and significant effect on the Intention to Adopt of JKN Mobile users, with $path\ coefficient\ 0,142$, $t-statistic\ 2.866 > 1.65$, and $p-value\ 0.002 < 0.05$. This indicates that technical support and resource availability influence app adoption intentions. This finding is consistent with the UTAUT model (Venkatesh et al., 2003) and is supported by research by Handayani et al. (2018) which emphasizes the importance of infrastructure and technical assistance in the adoption of digital health services. These findings indicate that the availability of facilities and technical support is a crucial foundation for users in making the decision to adopt JKN Mobile. When users feel they have adequate equipment, such as a smartphone and sufficient internet data, the technical barriers to starting using the app are minimized. This type of technical support is not only practical but also provides confidence that they can access and utilize this digital service without significant difficulty. In addition to the device, the ease of accessing information and guidance while using the app also significantly influences adoption intentions. Indicators such as "users receive help when experiencing difficulties" or "necessary information is readily available" reinforce the perception that users feel less alone when navigating JKN Mobile's features. When this support feels tangible and easily accessible, users are more likely to feel safe and supported, ultimately increasing their desire to continue using the app. Therefore, the presence of good supporting conditions not only facilitates but also builds comfort and confidence in the technology adoption process.

The Influence of Service Quality on Intention to Adopt

The results of the hypothesis test show that Service Quality has a positive and significant effect on the Intention to Adopt of JKN Mobile users, with $path\ coefficient\ 0,271$, $t-statistic\ 4,362 > 1.65$, and $p-$

$value 0.000 < 0.05$. This means that the higher the service quality, the greater the user's intention to adopt the application. This finding aligns with Akter et al. (2024) who stated that mHealth service quality contributes to user satisfaction and influences application usage intention. These findings indicate that the quality of service provided by JKN Mobile providers or JKN officers is a crucial factor in shaping users' intention to adopt the app. When users perceive that service officers are responsive, able to resolve issues as promised, and possess adequate knowledge, their trust and comfort in using the app increase. This positive response to the service creates a pleasant experience, which ultimately encourages users to be more open and interested in integrating JKN Mobile into their routines. In addition, the attention given by the service provider when users experience difficulties also strengthens the belief that this application is not just a platform digital, but also supported by a responsive and caring service system. Quality service conveys the impression that users' needs are truly cared for and served professionally.

The Influence of Information Quality on Intention to Adopt

The results of the hypothesis test show that Information Quality does not have a significant effect on the Intention to Adopt of JKN Mobile users, even though $path\ coefficient$ is positive at 0.052. The $value-t-statistic 1.052 < 1.65$ and $p-value 0.146 > 0.05$. This finding is in line with Li et al. (2024) who stated that although information quality is important, not all aspects of it directly influence perceived benefits or continued intention to use mHealth applications. These findings indicate that the quality of information available on JKN Mobile is a crucial factor in encouraging users to adopt the app. When the information presented is comprehensive, relevant to their health needs, and easy to understand, users will feel supported and more confident in making decisions regarding healthcare services. Indicators such as "complete and comprehensive information available" and "relevant health content" demonstrate that users value clarity and relevance of information as key factors in determining their intention to use. Beyond just content, the freshness and attractiveness of the information also contribute to a positive user experience. Continuously updated information presented in an easy-to-read manner makes users perceive the app as active, responsive, and reliable. Therefore, good information quality not only provides functional value but also builds strong emotional confidence that leads to consistent app adoption.

The Influence of System Quality on Intention to Adopt

The results of the hypothesis test show that System Quality does not have a significant effect on the Intention to Adopt of JKN Mobile users, with $path\ coefficient 0,052$, $t-statistic 1.052 < 1.65$, and $p-value 0.146 > 0.05$. This finding aligns with Februadi et al. (2025) who stated that system quality does not directly influence adoption intentions, as users consider a good system to be the minimum standard. Other factors such as organizational support and innovation values are considered more important. These findings indicate that technical aspects of JKN Mobile, such as application structure and functional suitability, are not yet dominant factors in shaping user adoption intentions. This may be because users are now accustomed to various types of digital applications, so a good system is considered the minimum standard, rather than a key factor driving adoption intentions. In other words, even though the application is well-structured and provides appropriate functions, users do not necessarily consider these aspects to be the primary determinants in their decision. Furthermore, users prioritize perceived tangible benefits, such as the quality of information or services provided, over the technical aspects of the system. While indicators such as "JKN Mobile is easy to use and not confusing" received positive ratings, this ease of use tends to be considered complementary, rather than the primary factor driving the decision to start using the app. Therefore, to increase adoption intentions, JKN Mobile development should place a greater emphasis on content and services that directly impact users, without compromising system quality, which remains crucial in supporting the overall user experience.

The Influence of Intention to Adopt on Intention to Use

The results of the hypothesis test show that Intention to Adopt has a positive and significant effect on Intention to Use of JKN Mobile users, with $path\ coefficient 0,562$, $t-statistic 11.138 > 1.65$, and $p-value 0.000 < 0.05$. This means that the higher the adoption intention, the more likely the user will continue using the application. This finding is supported by Rezeki et al. (2023), who showed that initial adoption intention is a

strong predictor of continued use of mobile applications. These findings indicate that a person's initial intention to try JKN Mobile significantly determines their continued use of the app. When users plan to adopt JKN Mobile, either in the near future or in the coming months, they are more likely to continue actively using the app. Adoption intentions often stem from positive initial experiences, expectations about the app's benefits, and support from their social environment or conditions that facilitate use. Furthermore, indicators such as "users plan to continue using JKN Mobile" and "users will use JKN Mobile for health issues" demonstrate that strong intentions to adopt the app extend beyond initial trials and develop into long-term commitments. This means that the stronger a person's intention to adopt, the more likely they are to make JKN Mobile part of their digital routine for accessing healthcare services. This reinforces the point that establishing strong adoption intentions from the outset is crucial to ensuring the successful implementation and continued use of digital services like JKN Mobile.

The Influence of Intention to Adopt moderated by Patient Health Value on Intention to Use

The results of the hypothesis test show that Intention to Adopt has a positive and significant effect on Intention to Use, moderated by Perceived Health Value, with *path coefficient* 0,271, *t-statistic* 3,020 > 1.65, and *p-value* 0.000 < 0.05. This indicates that perceived health value strengthens the relationship between adoption intention and actual use. This finding aligns with the study by Chan et al. (2023) which emphasized that perceived value, particularly health benefits, plays a significant role in driving the adoption of health technology services. This finding suggests that a person's awareness of the importance of health strengthens the relationship between initial intention and JKN Mobile usage. Users who perceive the importance of health are more likely to persist beyond the desire to try, but rather to consistently utilize the application. In this context, the intention to adopt the application becomes more meaningful because it is based on concern for health conditions, rather than simply a trend or environmental recommendation. When someone truly values the importance of healthy living, digital services like JKN Mobile will be seen as a tool that supports that effort. Thus, adoption is not simply a response to technological convenience, but rather part of a personal commitment to a more organized and controlled lifestyle regarding healthcare. This suggests that the greater the level of health concern, the greater the likelihood of someone using the app continuously.

IV. CONCLUSION

This study aimed to address the influence of the UTAUT model, Service Quality, Information Quality, and System Quality on the Intention to Adopt and Intention to Use the JKN Mobile application, with Patient Health Value as a moderating factor among JKN Mobile users. Descriptive analysis revealed that respondents rated Performance Expectancy (84.8%), Intention to Use (84.9%), and Patient Health Value (88.5%) in the "very good" category. Meanwhile, Effort Expectancy (78.4%), Social Influence (79.2%), Facilitating Condition (82.3%), Service Quality (78.8%), Information Quality (83.3%), System Quality (80.9%), and Intention to Adopt (82.5%) fell into the "good" category. The results indicated that performance Expectancy positively and significantly affects the Intention to Adopt (path coefficient = 0.198), meaning better performance expectancy increases adoption intention, while lower expectancy reduces it.

Effort Expectancy does not have a significant effect on Intention to Adopt (path coefficient = 0.039). Social Influence has a positive and significant effect on Intention to Adopt (path coefficient = 0.144), suggesting that stronger social influence increases adoption intention. Facilitating Condition positively and significantly affects Intention to Adopt (path coefficient = 0.142), meaning better facilitating conditions encourage adoption. Service Quality positively and significantly influences Intention to Adopt (path coefficient = 0.271), indicating that improved service quality enhances adoption intention. System Quality does not significantly impact Intention to Adopt (path coefficient = 0.052). Furthermore, Intention to Adopt has a strong positive and significant effect on Intention to Use (path coefficient = 0.562), showing that higher intention to adopt leads to increased use intention. Additionally, Perceived Health Value moderates this relationship positively and significantly (path coefficient = 0.271), meaning that a higher perceived health value strengthens the positive influence of Intention to Adopt on Intention to Use.

REFERENCES

- [1] Alnaser, F., Rahi, S., Alghizzawi, M., & Ngah, A. H. (2024). An integrative research framework to investigate factors influencing citizen's intention to adopt e-health applications: Post-COVID-19 perspective. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/GKMC-07-2023-0242>
- [2] Alzahrani, A. I., Al-Samarraie, H., Eldenfria, A., Dodoo, J. E., & Alalwan, N. (2022). Users' intention to continue using mHealth services: A DEMATEL approach during the COVID-19 pandemic. *Technology in Society*, 68, 1–10. <https://doi.org/10.1016/j.techsoc.2022.101862>
- [3] Amalia, I. S., Suryanto, T. L. M., & Wulansari, A. (2023). Analysis of Acceptance Factors of the iPusnas Application Using the Unified Theory of Acceptance and Use of Technology (UTAUT). *National Journal of Technology and Information Systems*, 9(1), 45–54. <https://doi.org/10.25077/TEKNOSI.v9i1.2023.45-54>
- [4] Bahri, S., Amri, A., & Siregar, A. A. (2022). Analysis of the Service Quality of the BPJS Kesehatan JKN Mobile Application Using the Service Quality Method (SERVQUAL). *Industrial Engineering Journal*, 11(2). <https://doi.org/10.53912/iej.v11i2.837>
- [5] Basuki, R., Tarigan, Z. J. H., Siagian, H., Limanta, L. S., Setiawan, D., & Mochtar, J. (2022). The effects of perceived ease of use, usefulness, enjoyment and intention to use online platforms on behavioral intention in online movie watching during the pandemic era. *International Journal of Data and Network Science*, 6(1), 253–262. <https://doi.org/10.52677/j.ijdns.2021.9.003>
- [6] DeLone, W. H., & McLean, E. R. (1992). Information Systems Success: The Quest for the Dependent Variable. *Information Systems Research*, 3(1), 60–95. <https://doi.org/10.1287/isre.3.1.60>
- [7] Dewi, C. K., Pradana, M., García, R.-H., Rubiyanti, N., & Syarifuddin, S. (2022). Developing halal consumer behavior and tourism studies: Recommendations for Indonesia and Spain. *Frontiers in Psychology*, 13, Article 863130. <https://doi.org/10.3389/fpsyg.2022.863130>
- [8] Dzilhaq, N. C. (2024). *Why Are Government Apps' UIs So Bad? —UX Writing Case Study* National Health Insurance (JKN) Mobile. Medium. <https://medium.com/@acarenatnic/kenapa-government-app-ui-is-ugly-case-study-ux-writing-mobile-jkn-4e8dc9675732>
- [9] Elisa, H. P., Fakhri, M., & Pradana, M. (2023). Impacts of the scarcity of health appliances on impulsive purchases during the COVID-19 pandemic in Indonesia. *Gadjah Mada International Journal of Business*, 26(3), 279–302. <https://doi.org/10.22146/gamaijb.71700>
- [10] Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *The Journal of Strategic Information Systems*, 19(3), 207–228. <https://doi.org/10.1016/j.jsis.2010.05.001>
- [11] Hakim, A. U., Rustanto, A. E., Bratakusumah, D. S., & Hidayat, A. (2024). Analysis of the Effectiveness of Using the JKN Mobile Application as Part of Public Services at BPJS Kesehatan in Bekasi City. *Mandalika Light Journal*, 5(2), 1087–1095. <https://doi.org/10.36312/jcm.v5i2.2744>
- [12] Idawati, I., Yuliana, Y., Rahmi, P. T., Zuhra, F., & Nurrahmah, N. (2020). Clean and Healthy Living Behavior (PHBS) Regarding Environmental Cleanliness in Belee Busu Village, Meunasah Dayah Hamlet, Mutiara Barat District, Pidie Regency. *Community*
- [13] Idayani, R. W., & Darmaningrat, E. W. T. (2024). Evaluation of factors affecting student acceptance of Zedemy using the Unified Theory of Acceptance and Use of Technology (UTAUT). *Procedia Computer Science*, 234, 1276–1287. <https://doi.org/10.1016/j.procs.2024.03.125>
- [14] Indrawati, D., Mulyani, D., & Putra, R. H. (2022). Utilitarian, hedonic, and self-esteem motives in online shopping. *Spanish Journal of Marketing - ESIC*, 26(1), 46–62. <https://doi.org/10.1108/SJME-05-2021-0076>
- [15] Indrawati, P. C. P. Y., & Muthaiyah, S. (2023). eWOM via the TikTok application and its influence on the purchase intention of Somethinc products. *Asia Pacific Management Review*, 28(2), 174–184. <https://doi.org/10.1016/j.apmr.2022.07.007>
- [16] JKN Mobile. (2024). *Application* National Health Insurance (JKN) Mobile. JKN Mobile. <https://jknmobile.com/#:~:text=JKN%20Mobile%20adalah%20aplikasi%20mobile,terdekat%2C%20hingga%20melakukan%20pendaftaran%20online>

- [17] Juhri, K., & Dewi, C. K. (2017). Trust and Acceptance of T-Cash Mobile Money Services in Bandung: A Technology Acceptance Model (TAM) Approach. *Pro Business Journal*, 10(1), 36–51.
- [18] Kim, L., & Yeo, S. F. (2024). How stress and satisfaction influence customer service quality in banking industry. *Heliyon*, 10(11), e32604. <https://doi.org/10.1016/j.heliyon.2024.e32604>
- [19] Lewis, D. (1983). The marketing aspects of service quality. Emerging Perspectives on Services Marketing. Dalam D. Lewis, *Philosophical Papers Volume I* (1 ed., hlm. 99–107). Oxford University Press. <https://doi.org/10.1093/0195032047.003.0007>
- [20] Nikmah, N., Adi, S., Mawarni, D., & Ulfah, N. H. (2024). *The Relationship between Perceived Usefulness and Perceived Ease of Use on Application Use Interest National Health Insurance (JKN) Mobile in the BPJS Health Area of Nganjuk Regency*.
- [21] Pradana, M., Rubiyanti, N., & Marimon, F. (2024). Measuring Indonesian young consumers' halal purchase intention of foreign-branded food products. *Humanities and Social Sciences Communications*, 11, Article 1. <https://doi.org/10.1057/s41599-023-02559-0>
- [22] Rahayu, I. R. S., & Setiawan, S. R. D. (2024). *Number of participants National Health Insurance (JKN) Reach 98 Percent of the Population Indonesia*. Kompas.com.
- [23] Ramdhan, M. I., Nurdiansyah, M. I., & Amalia, N. N. (2024). Sentiment Analysis of JKN Mobile User Comments on Google Play Store. *Gunung Djati Conference Series*, 39, 92–100. <https://doi.org/10.15575/gdcs.v39i>
- [24] Rohmah, S., Desty, R. T., & Arumsari, W. (2024). Analysis of Service Quality on the JKN Mobile Application with the Satisfaction Level of JKN Mobile BPJS Kesehatan Users in Demak Regency. *Indonesian Journal of Health Community*, 5(1), 25. <https://doi.org/10.31331/ijhcco.v5i1.3161>
- [25] Sagala, R. A. S., Vanda, M. E., Hariyani, E., Syahadah, R. F., & Purba, S. H. (2024). Analysis of the Implementation of BPJS Health Program Policy in Improving the Quality of Health Services: A Literature Study. *Indonesian Journal of Health Science*, 4(4), 281–291. <https://doi.org/10.54957/ijhs.v4i4.933>
- [26] Sari, N. P. W. P., Duong, M.-P. T., Li, D., Nguyen, M.-H., & Vuong, Q.-H. (2024).
- [27] Suryawardani, B., Sastika, W., & Hanifa, F. H. (2017). Impulsive buying behavior in Bandung: External and internal stimuli. *Pertanika Journal of Social Sciences & Humanities*, 25(Special Issue, August), 59–68.
- [28] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- [29] Zhang, M., Cai, A., Jin, K., Huang, J., Li, D., He, M., & Gao, R. (2024). Scientific epistemology beliefs and acceptance of Traditional Chinese Medicine: A multigroup analysis based on the UTAUT model in Southern China. *Heliyon*, 10(12), e33136. <https://doi.org/10.1016/j.heliyon.2024.e33136> .