Investigating Factors Affecting Technology Adoption in the National Health Insurance (JKN) Application: Exploring User Perspectives in Surabaya

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Abstract

This study aims to analyze the factors influencing the adoption of the Mobile JKN application by users in Surabaya through the integration of the Technology Acceptance Model (TAM) and Information Quality from the Information Systems Success Model (ISSM). Using an explanatory quantitative approach, this study involved 160 respondents in Surabaya, whose data were analyzed using Structural Equation Modeling-Generalized Structured Component Analysis (SEM-GSCA). The findings indicate that Information Quality, Perceived Ease of Use, and Perceived Usefulness have a positive and significant influence on users' Attitude, which ultimately strongly drives the Intention to Use the Mobile JKN app. The analysis confirms that accurate information quality and ease of navigation are key determinants in shaping the perceived usefulness of the app among the public. The practical implications of this study emphasize the importance for BPJS Kesehatan to continuously update information content in real-time and simplify the application interface to address digital literacy barriers. Additionally, optimizing self-service features is expected to reduce physical queues at branch offices and healthcare facilities, thereby creating a social impact in the form of more equitable and efficient access to healthcare services. The originality of this study lies in the integration of information quality variables into the TAM framework to analyze the phenomenon of low app adoption in regions where JKN coverage is nearly 100% (Universal Health Coverage), thereby contributing new theoretical insights within the context of e-government health services in Indonesia.

***Keywords**: Mobile JKN, Technology Acceptance Model, SEM-GSCA, Information Quality, Technology Adoption, Surabaya.*

Introduction

Modern technology has drastically transformed the world, prompting public organizations such as BPJS Kesehatan to adopt e-government. E-government is defined as an easily accessible, integrated, and evolving ICT platform designed to provide effective, transparent, and accountable government services (Bhatia et al., 2024; Malodia et al., 2021).

The Mobile JKN app was introduced by BPJS Kesehatan in 2017 to streamline the registration process, premium payments, and virtual consultations, thereby reducing the necessity for in-person visits to service facilities (JKN Mobile, 2025). Despite JKN-KIS coverage in Surabaya attaining 99.08% (2.47 million active

participants in 2025), app uptake was merely 435,651 users in 2024, attributed to inadequate information quality and restricted digital literacy (BPJS Kesehatan, 2025). This phenomenon aligns with findings from Western Balkan countries, where technological development has shown that unequal access to technology and skill-based inequality create significant gaps between those who can leverage digital services and those who cannot (Shehu & Qafa, 2024). As highlighted in the banking sector's digital transformation, the success of digital platforms heavily depends on consumer trust and digital literacy, where many users prefer traditional methods due to a lack of digital knowledge and concerns about security (Uku et al., 2025).

The Technology Acceptance Model (TAM) has been employed in previous research to evaluate factors such as Perceived Usefulness, Ease of Use, Attitude, and Intention to Use, as well as Information Quality from the ISSM (Gupta et al., 2023; Krisdina et al., 2022). Although the majority of these studies concentrate on national contexts or specific regions, such as Karawang and Semarang, there is a population gap for Mobile JKN users in Surabaya, a significant city with distinctive socio-digital characteristics. Moreover, there exists an empirical deficiency stemming from the limited research that thoroughly incorporates Information Quality as an external variable within the TAM model (Miles, 2017; Rahman & Chaniago, 2025). This study seeks to examine the factors affecting the adoption of the Mobile JKN app from the users' perspective in Surabaya. It is anticipated that this study will address a void in the literature, offer practical recommendations for BPJS Kesehatan, and contribute to the advancement of e-government in Indonesia by integrating the Technology Acceptance Model (TAM) and the Information Quality framework from the ISSM.

Literature Review

E-government

E-government denotes the utilization of information and communication technology (ICT), especially the internet, by governmental entities to deliver digital services and information to citizens. The objective is to enhance efficiency, openness, and accountability in public administration while augmenting citizen participation in the governing process (Malodia et al., 2021; Roztocki et al., 2024). While e-government offers numerous advantages, it also has its disadvantages particularly in less developed countries. Research by Abulhaija et al. (2025) in Jordan identified the primary obstacles to implementing this system as the digital gap, infrastructural limitations, insufficient digital literacy, and cultural resistance to change.

Mobile JKN

Organizations must persist in enhancing health services, as BPJS Kesehatan has achieved with the enactment of Presidential Regulation No. 82 of 2018 to guarantee the fulfillment of participants' fundamental demands (Putra et al., 2022). As one of the largest social insurance systems globally, JKN has provided coverage for over 278 million individuals, representing 98.89% of Indonesia's population, as of January 2025 (Dewan Jaminan Sosial Nasional, 2023; DJSN, 2025). The digital transformation was enhanced by the introduction of the Mobile JKN app in 2017, which streamlined online administration for participants and exemplified healthcare service digitization (Putra et al., 2022; Silvia & Gunawan, 2024). This software enhances accessibility and time efficiency for users through features like queue registration, doctor consultations, and real-time hospital bed availability information (JKN Mobile, 2025; Nadya, 2024).

Information System Success Model

System quality, service quality, information quality, intention to use, satisfaction, and net benefit are the six characteristics that make up the comprehensive framework known as the Information System Success Model (ISSM), which was created by DeLone and McLean and revised in 2003 (DeLone & McLean, 2003). This methodology does not assess performance in isolation but analyzes the comprehensive interconnections among factors (Krisdina et al., 2022). The revised ISSM has incorporated both individual and organizational impacts into Net Benefit for a more adequate evaluation, despite the initial version facing criticism (Rahi et al., 2021). Also, the Service Quality variable has been added. This model has been extensively utilized to evaluate the efficacy of systems like e-health (Krisdina et al., 2022; Rahi et al., 2021) and campus management systems (Al Naqbi, 2024). The researchers explicitly utilized the Information Quality (IQ) variable from this model in this investigation.

Information Quality

Information Quality (IQ) is intrinsically linked to the delivery of current, precise, and superior information (Rieh in Kanaan et al. 2023)governments of developing and developed nations must provide appropriate e-government services to assure confidence and effective and efficient usage among their citizens. The quality, security, and privacy of current e-govern-ment implementation have been impairing the trust and participation of users, in Jordan especially. Hence, this study examined the impacts of quality, security and privacy of e-government

services on the intention to use e-government services among Jordanian citizens. Questionnaires were used to gather data, and questionnaire items covered the constructs of quality factors (information quality, system quality, and service quality. Elevated IQ has been demonstrated to directly affect Attitude, Perceived Usefulness, and users behavioral intentions about the adoption of information technologies (Bamufleh et al., 2021; Gupta & Mathur, 2024; Kanaan et al., 2023) this study aims to analyse the impact of these factors on the adoption process. Design/methodology/approach: The study used convenience sampling procedure to collect the data from 431 citizens of India. Confirmatory factor analysis and structural equation modelling techniques were used to assess the validity of scale and test the hypotheses. Findings: The finding reveals that the information quality (IQ. In the realm of e-government and health applications, enhanced IQ markedly improves public trust and acceptance (Bamufleh et al., 2021; Kanaan et al., 2023) information system success model (ISSM. Considering that system usefulness is significantly influenced by the quality of its information, a comparable premise holds for mobile applications, wherein superior information quality will enhance users' propensity to engage with the system (Steininger et al., 2022; Zhai & Shi, 2020)as well as how students' perceived usefulness impacted their physics learning achievement. We examined 803 high school freshmen who used 20 specific functions of tablets in physics learning for five months. Based on pedagogical roles students and teachers played, 15 of the 20 functions were classified into three pedagogical categories: five for student-led, five for teacher-led, and five for collaborative functions (Journal of Science Education and Technology; Zhai, Li, & Chen, 28: 310–320, 2019. IQ not only affects usability and perceived advantages, but also positively increases user happiness and loyalty towards continued platform usage (Bamufleh et al., 2021; De Lima et al., 2021; Li & Shang, 2020)in the learning ecosystem, it is necessary to take into account the increasingly important role of learning platforms (LP. Thus, this study hypothesizes that:

H1a: Information Quality has a positive and significant effect on the Perceived Usefulness of Mobile E-Government applications among the public.

H1b: Information Quality has a positive and significant effect on the public's Attitude toward Mobile E-Government applications.

Technology Acceptance Model

The Technology Acceptance Model (TAM), developed by Davis in 1989, is a theoretical framework that elucidates the adoption of information technology, grounded in Fishbein and Ajzen's Theory of Reasoned Action (TRA) from 1975. TRA posits that individual conduct is determined by intention, which is influenced by attitudes and subjective norms (Fishbein & Ajzen, 1975). Perceived Usefulness (PU), which refers to the perception of performance improvement, and Perceived

Ease of Use (PEOU), which refers to the perception of minimal effort required to use the system, are two key constructs that Davis (1989) introduced to adapt this framework to the context of technology. User acceptance or rejection is a critical factor in information systems, and the Technology Acceptance Model (TAM) generally encompasses the factors of Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude (ATTI), Behavioral Intention (INT), and external variables (Khan & Qutab, 2016; Venkatesh et al., 2012). In this study, the researcher employed the four primary TAM variables namely Perceived Usefulness, Perceived Ease of Use, Attitude, and Intention.

Perceived Usefulness

Perceived Usefulness (PU) is defined as the extent to which consumers perceive that a specific technology can enhance performance (Davis, 1989). The higher the perceived advantages in both professional and personal contexts, the greater the probability of adoption and continued utilization (Basuki et al., 2022; Davis, 1989; Toros et al., 2024). Empirical research indicates that PU substantially affects satisfaction, usage intention, and actual technological behavior (Denovan & Marsasi, 2025; Toros et al., 2024; Rapo & Demaj, 2024). Users typically demonstrate favorable attitudes and loyalty when technology provides concrete benefits for productivity and efficiency (Basuki et al., 2022; Denovan & Marsasi, 2025; Toros et al., 2024). Per Venkatesh et al. (2003), PU serves as a subjective evaluation that impacts the attitudes of diverse user demographics, such as older adults (Toros et al., 2024), m-government users (Eid & Selim, 2021), and individuals engaged in video conference-based learning (Aulia & Marsasi, 2024). Based on the above discussion, the following hypothesis is formulated:

H2: Perceived Usefulness has a positive and significant effect on the public's Attitude toward Mobile E-Government applications

Perceived Ease of Use

Perceived Ease of Use (PEOU) refers to an individual›s conviction that utilizing a system necessitates minimal exertion (Davis, 1989). Intuitive technology enhances the probability of acceptance and continued utilization (Luo et al., 2024). Denovan & Marsasi (2025) assert that PEOU includes the absence of obstacles that improves both comfort and the efficacy of tasks. Users are more likely to be open and loyal when the technology is simple to operate (Denovan & Marsasi, 2025; Luo et al., 2024; Syafika & Antonio, 2024). Empirical research has shown that PEOU has a substantial impact on intention to use, perceived utility, satisfaction, and loyalty. PEOU is positively correlated with perceived usefulness in the e-commerce, healthcare, and education sectors (Budiyanto et al., 2024) and is also associated

with the decision-making process (Anjani & Fitria, 2023). The simplicity of use amplifies the perceived advantages of the system, hence reinforcing the intention to adopt it in everyday life (Liesa-Orús et al., 2023; Naatu et al., 2024). Ultimately, PEOU directly affects consumers› attitudes and indirectly influences their intention to use (T. H. V. Thi, 2024). As perceived usefulness rises, it affects attitudes toward mobile e-government (Prasalitiawan et al., 2021), whereas perceived ease of use indirectly influences an individual›s propensity to utilize these services (T. Thi et al., 2024). Therefore, the following hypotheses can be concluded:

H3a: Perceived Ease of Use positively and significantly influences the Perceived Usefulness of the Mobile E-Government application

H3b: Perceived Ease of Use positively and significantly influences citizens' Attitude toward the Mobile E-Government application

Attitude and Intentions for Using the App

According to Davis (1989) and (Ajzen, 1991), attitude is a person›s disposition or assessment, whether favorable or unfavorable, regarding a specific behavior. Naji et al. (2024) discovered that a favorable disposition markedly enhances the intention to utilize a mobile application, a correlation that remains consistent across diverse sectors including e-tourism, m-banking, IoT, and transportation (Barimbing & Astini, 2023; Hamouda, 2022; Mulyati et al., 2023; Naji et al., 2024). Behavioral Intention, as an indicator of behavioral inclination, is a crucial factor in technology adoption (Abdunool et al., 2024; Ajzen, 1991; Yuliani et al., 2024), with a strong intention correlating positively with the probability of adoption (Cesario et al., 2023; Sharma et al., 2022). The significance of positive attitudes in facilitating the adoption of e-government is determined by perceptions of the system›s utility and user-friendliness, as per the concept of individual sentiments (Davis, 1989) and findings by Alalwan et al. (2018). Hasan et al. (2024); Naatu et al. (2024) and Naji et al. (2024) further underscore the robust association between ATTI and INT in digital public services. Intention signifies an individual›s determination influenced by values and objectives (Ajzen, 1991), making Behavioral Intention a key predictor in consumer adoption choices (Eveleth & Stone, 2020; Upadhyay et al., 2022). Consequently, a strong intention to use is likely to enhance the probability of technology adoption (Kim & Kyung, 2023; Shaya et al., 2023). Therefore, the following hypothesis can be concluded:

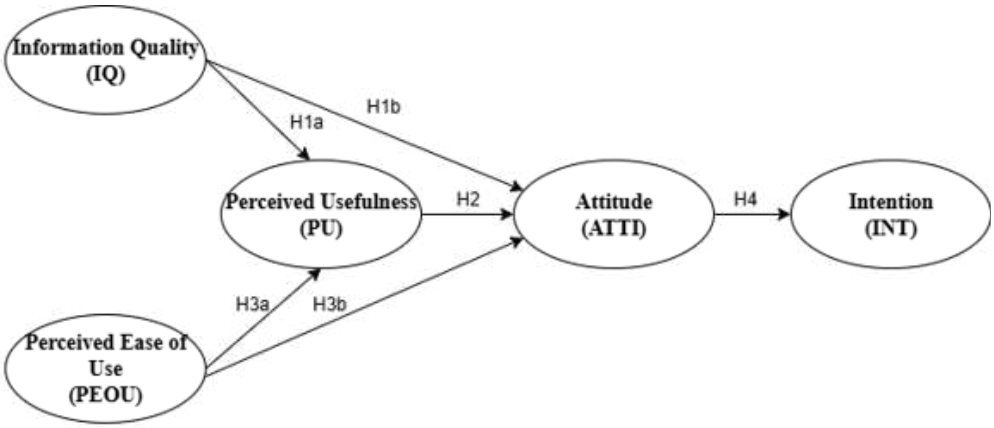
H4: The public's attitude toward the Mobile E-Government application positively and significantly influences the intention to use the E-Government application

Methodology

Instrument

The organized questionnaire comprises the following constructs: IQ, PU, PEU, ATTI, and INT. All individual pieces for each construct were sourced from pertinent literature, with certain items examined and slightly adjusted within the context of the Mobile JKN application. Five items from the IQ measurement scale were derived from the research conducted by Gupta & Mathur (2024) and Li & Shang (2020)this study aims to analyse the impact of these factors on the adoption process. Design/methodology/approach: The study used convenience sampling procedure to collect the data from 431 citizens of India. Confirmatory factor analysis and structural equation modelling techniques were used to assess the validity of scale and test the hypotheses. Findings: The finding reveals that the information quality (IQ. Four items assessing PU were modified according to Alhadid et al. (2022), Gupta & Mathur (2024) and Venkatesh et al. (2012) the goal of this study is to examine the various factors that influence the use of SANAD App As a health protection tool. The factors were adopted from well-established models like UTAUT, TAM, and extended PBT. Using survey data from 442 SANAD App from Jordan, the model was empirically validated using AMOS 20 confirmatory factor analysis, structural equation modeling (SEM. Four items assessing PEU were modified based on the works of Alhadid et al. (2022), Gupta & Mathur (2024), and Zeebaree et al. (2022)the goal of this study is to examine the various factors that influence the use of SANAD App As a health protection tool. The factors were adopted from well-established models like UTAUT, TAM, and extended PBT. Using survey data from 442 SANAD App from Jordan, the model was empirically validated using AMOS 20 confirmatory factor analysis, structural equation modeling (SEM. The authors ultimately assessed attitudes and behavioral intentions with four items, each derived from Gupta & Mathur (2024), Li & Shang (2020), and Venkatesh et al. (2012)this study aims to analyse the impact of these factors on the adoption process. Design/methodology/approach: The study used convenience sampling procedure to collect the data from 431 citizens of India. Confirmatory factor analysis and structural equation modelling techniques were used to assess the validity of scale and test the hypotheses. Findings: The finding reveals that the information quality (IQ. A five-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree," was utilized for all items in this questionnaire.

FIGURE 1. Research model



Data collection procedure and sample

This study is an explanatory research concentrating on users of the Mobile JKN application in Surabaya. Primary data was utilized to empirically evaluate the research hypotheses. A questionnaire was created to gather the primary data. The survey questionnaire was segmented into two components. The initial element of the questionnaire gathered demographic data and basic information concerning users› patterns of Mobile JKN app utilization. The second portion comprised inquiries concerning several factors influencing the adoption of the Mobile JKN application. The study population comprises all National Health Insurance (JKN) participants in Surabaya, amounting to 2.9 million individuals, which represents 99.08% of the entire population (DJSN, 2025). Due to the substantial population size, sampling was executed utilizing the convenience sampling technique, a method that selects a sample based on chance (Sugiyono, 2022). The criteria for this study included residents of Surabaya City who are registered as active JKN participants and users of the Mobile JKN app for the past four months. Hair et al. (2022) recommend that the sample size for this study be determined based on the rule of thumb or 10-times rule, which stipulates that the minimum sample size for multivariate Structural Equation Modeling (SEM) analysis should be 10 times the number of indicators in the overall research model. Based on a total of 21 indicators tested, the calculation yields 210. Therefore, the target sample size to be used by the researcher is 210 respondents.

Data collection for this study was conducted online by distributing a questionnaire to the public in the city of Surabaya. The initial sample target set by the researcher was 210 respondents to obtain more comprehensive results. However, during implementation, technical challenges arose in the field, including limited access to directly meet active users of the Mobile JKN app, as well as a number of questionnaires that were not returned or were incompletely filled out

by respondents. After data verification and cleaning, the final valid sample size suitable for analysis was 160 respondents. Although this number is smaller than the initial target, the 160 respondents are still considered valid and representative because they meet the minimum sample size criteria according to Roscoe in Sekaran & Bougie (2016), which states that in multivariate research, a sample size of between 30 and 500 subjects is appropriate.

Data analysis procedure

The data analysis procedure in this study was conducted using inferential analysis techniques, specifically the Structural Equation Modeling-Generalized Structured Component Analysis (SEM-GSCA) method. Before further data processing, the validity of the instrument was evaluated using Pearson Product Moment correlation, while its reliability was tested using Cronbach's Alpha via the JASP software. After the questionnaire items were deemed valid and reliable, the data collected from 160 respondents were analyzed using the GSCA Pro application to test the measurement model and structural model simultaneously. This analysis aimed to evaluate model parameters, including FIT values to assess explained variance, as well as hypothesis testing via path coefficients to understand the relationships among the variables Information Quality, Perceived Usefulness, Perceived Ease of Use, Attitude, and Intention to Use. SEM-GSCA was chosen due to its flexibility regarding data distribution, stability with limited sample sizes, and provision of comprehensive model fit indices such as GFI and SRMR.

Results

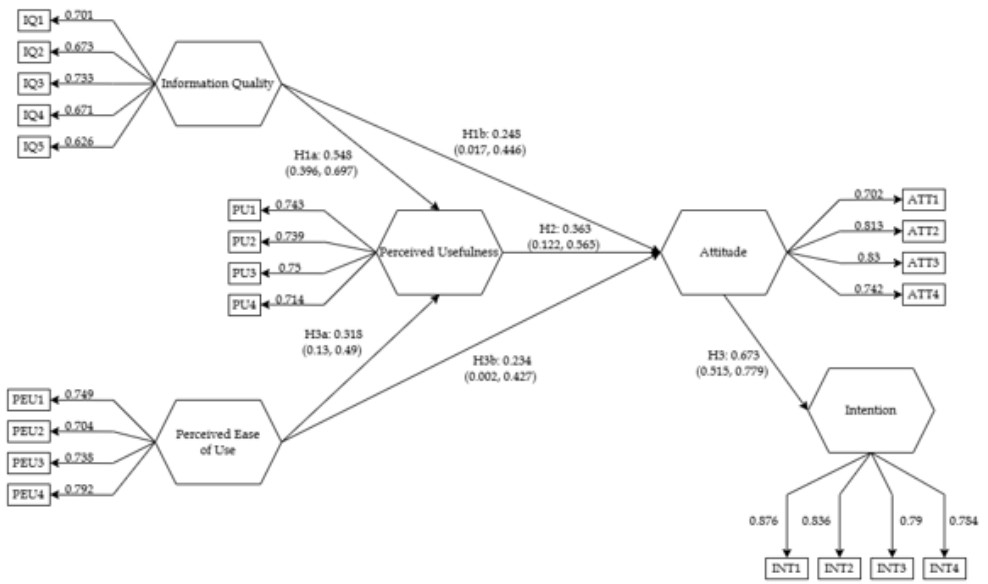
This study encompassed 160 active users of the Mobile JKN app in Surabaya, each having utilized the app for a minimum of four months. The demographic composition was predominantly comprised of adults aged 20–30 years (69%), females (73%), unmarried persons (53%), and those possessing a bachelor's degree (65%). According to usage frequency, the majority of respondents utilized this service on a monthly basis (46%). Primary data were gathered by a 5-point Likert scale questionnaire and processed with Structural Equation Modeling-Generalized Structural Component Analysis (SEM-GSCA) with GSCA-PRO software. The structural model showed acceptable fit with FIT=0.518 (51.8% variance explained), GFI=0.984 (>0.90), and SRMR=0.053 (<0.08), indicating acceptable model fit.

An assessment of the loading indicators revealed that all variables satisfied the adequacy requirement of above 0.5 (Chin, 1998)W. W., & Newsted, P. R. (1999, with the majority achieving the optimal level of 0.7 (Hair et al., 2019b). The INT1 indicator exhibited the greatest value at 0.876, while the IQ5 indicator recorded the lowest value at 0.626. Construct validity assessment verified convergent validity

and internal consistency, with Cronbach's Alpha and Composite Reliability (rho) exceeding 0.70 for all variables. The PVE value for the IQ variable (0.465) was somewhat below the 0.50 threshold, but the remaining variables exhibited satisfactory values (Hair et al., 2019). Discriminant validity was affirmed by the Fornell-Larcker criterion, as the square root of AVE surpassed the inter-factor correlation (Adu et al., 2020; Fornell & Larcker, 1981), but the HTMT ratio remained within acceptable psychometric boundaries (Hair et al., 2019; Henseler et al., 2015)yet concise, overview of the considerations and metrics required for partial least squares structural equation modeling (PLS-SEM.

The predictive capability of the structural model (R^2) demonstrates that the exogenous factors explain 62.2% of the variance in Perceived Usefulness (PU), 56.8% in Attitude (ATTI), and 45.3% in Intention (INT). Effect size analysis (f^2) indicated diverse impacts, from a tiny effect on the association between PEU and ATTI (0.058) to a very substantial effect on the association between ATTI and INT (0.827). All study hypotheses were accepted based on the evaluation of path coefficients with a 95% confidence interval (Hwang et al., 2021). Information Quality (IQ) demonstrated a favorable impact on Perceived Usefulness (PU) (0.548) and Attitude (ATTI) (0.248). Likewise, Perceived Usefulness exhibited a favorable influence on ATTI (0.363). Conversely, Perceived Ease of Use (PEOU) shown a favorable influence on Perceived Usefulness (PU) (0.318) and Attitude (ATTI) (0.234). Ultimately, Attitude demonstrated a significant positive effect on Intention (0.673), affirming that user attitude is an essential determinant in the intention to utilize technology.

FIGURE 2. Path Coefficient



Discussion

This study's findings demonstrate that IQ substantially affects the PU of the Mobile JKN application. These results are consistent with Bamufleh et al. (2021) information system success model (ISSM, who noted that an app is deemed beneficial if its information is accurate, timely, up-to-date, and relevant; Aswar et al. (2023), who claim that citizens view e-government as beneficial when information is complete, timely, and accurate; and Nguyen & Tran (2022), who clarified that perceptions depend on the experience of accessing information. IQ fosters trust, assuring users of the app's efficacy in healthcare management (Amanda & Layman, 2022); PU enhances with time savings (Jo & Park, 2023); and thus promotes public welfare (De Lima et al., 2021). Loading numbers indicate a significant distinction, IQ3 (The JKN Mobile App provides accurate information) is the highest, whilst IQ5 (In general, I can find the information I need regarding healthcare services in the Mobile JKN app) is the lowest. Users rely on the reliability of official sources but encounter difficulties in finding general health information due to navigation disruptions following updates. In PU, PU3 (Using the Mobile JKN app has improved my skills as a citizen) achieves the highest score, while PU4 (I find the Mobile JKN app useful in my daily life) attains the lowest score. Users recognize concrete advantages efficiency in time and cost, transparent access, and management of health rights yet not all necessitate daily oversight, as indicated by the monthly usage frequency among productive-age, highly educated individuals. Consequently, the application is regarded as a contextual civic instrument rather than an everyday essential.

IQ has a significant impact on the Mobile JKN app's ATTI, supporting the findings of Mensah et al. (2022), Mohammadi (2022), and Nookhao & Kiattisin (2023)this research fills theresearch gap by exploring the impact of website quality factors, trust factors, and tech-nology adoption factors on intention to use e-government websites from the citizens'perspective in Afghanistan. This research also investigates the impact of factors onthe adoption of governmental websites at three levels (information, interaction, andtransaction that accurate, relevant, and accessible information fosters a positive initial disposition, enhances public understanding of the value of e-government, and increases satisfaction and intention. IQ amplifies enjoyment and fosters engagement by providing current, precise, and readily accessible information (Bamufleh et al., 2021; Kanaan et al., 2023)information system success model (ISSM. Users favor the application because of its intuitive navigation, straightforward menus, online queues that reduce wait times, and a user-friendly interface. Notwithstanding grievances over re-authentication following updates, the prevailing feedback remains favorable.

The precision of membership data is essential, although the ease of search fluctuates based on navigational proficiency. The highest ATTI loading was ATTI3, (I enjoy downloading the Mobile JKN app), while the lowest was ATT1, (I prefer using the Mobile JKN app over other apps for informational purposes). Although their initial experience was satisfactory, not all users consider it their primary source of information. They continue to access other platforms, indicating strong early adoption but weak cross-app loyalty.

PU exerts a substantial impact on the ATTI of the Mobile JKN application. This corresponds with Toros et al. (2024), who propose that users perceive technology as advantageous, leading to a favorable attitude and readiness to utilize it, Basuki et al. (2022) discovered that positive perceived usefulness affects usage persistence. This finding, however, contradicts Denovan & Marsasi (2025), who contend that perceived usefulness may lack significance due to a disparity between learning duration and immediate advantages. In this context, perceived usefulness (PU) is expressed as positive attitude toward technology (ATTI) through satisfaction gained from user-friendliness (Ernawati et al., 2025), affects ATTI and the intention to adopt mobile government services (Eid & Selim, 2021), and is a vital element in technology acceptance (Fitrianingsih & Kusumapradja, 2025). The PU3 and PU4 gap endures, users appreciate the application for its prompt access to transparent health records, appointment schedules, remote consultations, and online referrals advantages that cultivate favorable attitudes toward technology for particular scenarios, despite their lack of integration into daily practices. Practical experiences that confirm membership, queue status, and facility information without physical visits elicit favorable emotions, nonetheless, not all individuals depend solely on Mobile JKN compared to alternative applications.

PEOU has a significant impact on PU in Mobile JKN. According to Bamufleh et al. (2021)information system success model (ISSM, the public views e-government health applications as user-friendly and supportive of improved outcomes. Venkatesh and Davis as cited in Jo & Park (2023) assert that PEOU reduces cognitive load by focusing attention on the activity rather than on the operation of the system. Intuitive applications foster seamless engagement with government services (Gupta & Mathur, 2024)this study aims to analyse the impact of these factors on the adoption process. Design/methodology/approach: The study used convenience sampling procedure to collect the data from 431 citizens of India. Confirmatory factor analysis and structural equation modelling techniques were used to assess the validity of scale and test the hypotheses. Findings: The finding reveals that the information quality (IQ; the belief that an application is user-friendly enhances the experience of fulfilling obligations (Ramdanis & Priyambodo, 2025)efficiency, and transparency of health services. However, the adoption of Mobile JKN is still constrained by the level of user acceptance. The research uses the Model of Technology Acceptance (TAM; accessibility correlates

with effectiveness, increasing awareness of functionality and the likelihood of reusing the application (T. Thi et al., 2024). In PEOU, PEU4 (Learning to operate the Mobile JKN application is easy for me) ranked highest, while PEU2 (It will be easy for me to become proficient in using this application) ranked lowest. Users of working age consider the app easy to understand using only their National ID number they can access all services, but they are less motivated to understand its aspects thoroughly due to infrequent use. Consequently, PU3 (using the Mobile JKN app enhances my capabilities as a citizen) surpasses PU4 (I find the Mobile JKN app useful in daily life), the app is perceived as a reliable guarantee of healthcare access, not as a daily companion. Users can update their data independently within 10 minutes without needing to visit an office, yet the benefits of healthcare coverage remain even with irregular usage.

PEOU has a significant impact on ATTI, which aligns with the findings of Prastiawan et al. (2021) regarding the influence of intuitive and user-friendly characteristics; Denovan & Marsasi (2025) regarding feature understanding that reduces psychological barriers to an enjoyable experience; and Syafika & Antonio (2024) regarding feature understanding that enhances overall perceived utility. PEOU fosters trust in the simplicity of the service (Al-rahmi et al., 2022), eliminates the need for training to facilitate adoption (Luo et al., 2024), and demonstrates a strong positive relationship with ATTI (Naatu et al., 2024). Easy navigation, direct access to simple features, positive Play Store reviews, fast and accurate data updates, and reduced need for in-person visits all foster positive perceptions. Regarding ATTI, ATTI3 (I am happy to download the Mobile JKN app) once again surpasses ATTI1 (I prefer to use the Mobile JKN app). Users found installation and registration easy, leading to satisfaction and perceived usefulness; however, they continued to use alternative search apps for general information, indicating that initial ease of use does not always drive cross-app preference.

Ultimately, ATTI significantly influences INT to use the Mobile JKN app, consistent with the findings of Hasan et al. (2024) that customer attitudes significantly drive e-governance adoption, Naji et al. (2024)the adoption of mobile applications has become a transformative force across various industries, significantly impacting the way businesses operate and manage their processes. One area where mobile applications are making a remarkable impact is in the realm of Occupational Health and Safety (OHS that a positive attitude (ATTI) influences intention (INT); and Kim & Kyung (2023) that a positive assessment of new technology adoption emphasizes internal behavioral control more than external suggestions. A positive attitude toward technology increases the intention to use it (Denovan & Marsasi, 2025); recognition of its usefulness and ease of use drives access to government services (Gupta & Mathur, 2024)this study aims to analyse the impact of these factors on the adoption process. Design/methodology/approach: The study used convenience sampling procedure to collect the data

from 431 citizens of India. Confirmatory factor analysis and structural equation modelling techniques were used to assess the validity of scale and test the hypotheses. Findings: The finding reveals that the information quality (IQ; and positive intentions significantly influence actual usage as well as motivation to participate in e-government (Al-haddad et al., 2023). In the ATTI scale, ATTI3 is the highest and ATTI1 the lowest, indicating that practical needs influence usage more than emotional desires. In the INT scale, INT1 (I will continue to use the Mobile JKN app regularly) is the highest, while INT4 (I intend to continue using the Mobile JKN app in the future) is the lowest. Users assess their intentions concretely, focusing on urgent situational health needs such as online queues, membership verification, or data modification, rather than on abstract long-term commitments. This indicates that intentions are focused on the present and driven by urgent needs, not dependent on long-term planning. Positive initial experiences with intuitive and user-friendly services provide support, however, lasting intent is distinguished from abstract or situational intent based on the clarity of current benefits.

Conclusions

This study shows that all proposed hypotheses were affirmed, with IQ and PEU demonstrating a positive and significant impact on PU and ATTI. These findings validate that delivering precise information and a user-friendly system improves user ease, while promoting favorable attitudes toward technology to sustainably enhance intention for the Mobile JKN app. The successful adoption illustrates the essential function of the Mobile JKN app as an efficient e-government service in streamlining health administration in Surabaya, while concurrently advancing the third Sustainable Development Goal (SDG) of ensuring inclusive and quality health access for all individuals.

This study, while producing substantial results, has drawbacks related to its sample breadth, which is confined to the City of Surabaya, a respondent count that is below the initial aim, and the situational nature of app usage, which fails to adequately reflect long-term usage experiences. This study theoretically enhances the TAM framework by incorporating the IQ variable from ISSM and reinforces the significance of ATTI as a crucial mediator in public technology adoption. This indicates to BPJS Kesehatan that information transparency and interface optimization (UI/UX) are as vital as the development of new features, as the efficacy of digitalization is assessed by continued INT based on favorable user impressions.

In light of these findings, it is recommended that BPJS Kesehatan persist in enhancing IQ, specifically concerning data correctness, and streamline application

workflows to improve PEU and reduce technological obstacles. Local governments and healthcare institutions must engage in continuous education to synchronize digital information with practical service delivery, thereby preserving public trust. For educational institutions, these findings can act as an empirical reference in digital transformation studies. Future researchers are advised to broaden the geographic scope and sample size, as well as investigate additional variables to enhance the generalizability of insights concerning the dynamics of digital public service adoption in Indonesia.

Declaration of Generative AI and AI-Assisted Technologies

During the preparation of this work, the author used DeepSeek to search for references and refine the syntax. After using this tool/service, the author reviewed and edited the content as needed and assumes full responsibility for the final content of the publication.

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