JPPIPA 12(3) (2026)

Jurnal Penelitian Pendidikan IPA

http://jppipa.unram.ac.id/index.php/jppipa/index

The Influence of Satisfaction on Telepharmacy Application Use in Indonesia

Mulyo Wiharto[1], Rina Anindita[1], Ety Nurhayati[1], Sumartono[1]

[1] Universitas Esa Unggul Jakarta, Indonesia.

Received: January 26, 2026
Revised: February 28, 2026
Accepted: March 25, 2026
Published: March 31, 2026

Corresponding Author:
Mulyo Wiharto
mulyo.wiharto@esaunggul.ac.id

DOI: 10.29303/jppipa.v12i3.14687

Abstract: The study was conducted to describe user satisfaction of web-based technology applications (user satisfaction), the use of web-based technology applications (application use) and the influence of user satisfaction on application use. Data collection used a questionnaire in the form of a Google form distributed to 30 respondents. The results of the regression test on the user satisfaction and application use variables obtained a constant value (a) of 7.388 and a user satisfaction coefficient of 0.569 so that the regression model is: Y = a + bX or 7.388 + 0.569X. A positive constant value of 7.388 indicates a positive influence of the user satisfaction variable or if the user satisfaction variable increases, the application use variable will also increase. The regression coefficient X of 0.569 states that if user satisfaction increases by 1 unit, then application use (Y) will increase by 0.569 or 56.9%. The results of the regression test on the user satisfaction and application use variables also obtained an F count of 4.209 and a significance level of 0.007. These results also indicate that the regression equation can be used to predict the application use variable. User satisfaction can be used to measure the success of using information technology-based applications (application use) and has a strong influence on application use.

Keywords: Application use; Telepharmacy; User satisfaction

Introduction

In 1996, PT Telkom launched the Telkomnet dial-up service in Indonesia, and in 1999, Soma.com emerged as the first digital pharmacy service application (Kurniawan & Rojabi, 2026). As public trust in technology for healthcare services, online drug sales, and more grew (Almeman, 2024), healthcare services using web-based applications also developed. Currently, many healthcare applications utilize web technology to provide healthcare services, such as Halodoc, Alodokter, Klikdokter, Riliv, Good Doctor, sehatQ, Kalm, and others.

The use of web technology is also necessary to address customer issues (Makgopa, 2024) and meet customer needs (Sadiq et al., 2022). The increasing dependence of telephone users on online pharmacy platforms necessitates the development of web-based services (Almeman, 2024) worldwide. Web-based pharmaceutical service applications that have emerged in Indonesia include PharmaGO, Vmedis, K24, Farmaku.com, Farmacare.id, Apoteker.net, TitanSystem Pharmacy, Apotekdigital.com, and others. A quality web-based application is one that attracts visitors, has a clear purpose, presents real-time information, is secure, efficient, and accessible at any time (Wulansari et al., 2021). These expectations have not yet been fully realized, given the public's dependence on web-based applications (Almeman, 2024).

The use of information technology to support service development using applications remains hampered (Widhiarso, 2021), and is faced with the limitations of the applications themselves (Li et al., 2024). The public remains concerned about the risks of using technology (Sabat, 2020), while risk assessment of services from a technological perspective is also limited (Ilkic et al., 2024). Other problems in the use of information technology also occur during information system updates, ransomware attacks (Ilieva et al., 2022), the prevalence of identity fraud, human error,

How to Cite:
Wiharto, M., Anindita, R., Nurhayati, E., & Sumartono. (2026). The Influence of Satisfaction on Telepharmacy Application Use in Indonesia. *Jurnal Penelitian Pendidikan IPA*, *12*(3), 478-483. https://doi.org/10.29303/jppipa.v12i3.14687

incomplete data input (Ilkic et al., 2024), and issues related to information security (Smith, 2016). Performance measurements of web-based applications implemented in pharmaceutical services are still limited (Wulansari et al., 2021), while factors influencing technology use by pharmacists have not been widely explored (Cobelli et al., 2024).

These conditions require a study of the use of technology-based applications, which is also related to the attitudes demonstrated by application users (user satisfaction). Therefore, the study of the use of web-based applications is linked to application user satisfaction and its influence on application use. User satisfaction is the response and feedback generated by users after using an information system. User attitudes toward an information system are subjective criteria that determine how much users like the system (Saputro et al., 2016)). User satisfaction is measured based on repeat visits, repeat purchases, and user surveys (DeLone & McLean, 2003).

In this regard, we will measure user satisfaction and application use variables to provide an overview of both variables and their interrelationship. This study aims to describe user satisfaction of web-based applications, application use, and the influence of user satisfaction on application use.

Method

The study was conducted on users of telepharmacy service applications in Indonesia. The sample size was 30 users of telepharmacy service applications such as Halodoc, Alodokter, Klikdokter, Riliv, Good Doctor, sehatQ, Kalm, Kimia Farma, and others. The instrument used in the study was a questionnaire with Likert-type answers. The research instrument underwent validity and reliability testing, and the test results were declared valid and reliable.

Data collection used a Google Form distributed to respondents who were users of telepharmacy service applications. Data analysis used in this study. Data presentation was carried out by displaying information containing an overview of user satisfaction, application use, and the influence of user satisfaction on application use. Prior to data analysis, the normality test for user satisfaction and application use data was performed using the Shapiro-Wilk normality test because the data were less than 50.

The normality test for user satisfaction data yielded a significance (p-value) of 0.003, and for application use data, a significance (p-value) of 0.002. These values are less than an alpha of 0.05, so it can be concluded that the data is not normally distributed.

The results of the normality test serve as a reference for conducting statistical tests, interpreting the data, and drawing conclusions to address the research problem. After conclusions are drawn, data verification is conducted to ensure the research results are truly accountable. Data verification is a repetitive activity to examine the data and confirm the research results.

Result and Discussion

Result

The regression test results for the user satisfaction and application use variables yielded a constant value (a) of 7.388 and a user satisfaction coefficient of 0.569. Therefore, the regression model is: Y = a + bX or 7.388 + 0.569X. The positive constant value of 7.388 indicates a positive influence of the user satisfaction variable, thus indicating that an increase in user satisfaction will be followed by an increase in application use.

The regression coefficient X of 0.569 means that if user satisfaction increases by one unit, application use (Y) will increase by 0.569, or 56.9%. This result aligns with Mardiana et al. (2015) opinion, which states that user satisfaction is used to measure the success of application use.

Table 1. The Influence of User Satisfaction on Telepharmacy Application Use in Indonesia.

Constan	Coefisient	Sig	R Square	F
7.388	0.569	0.007	0.467	4.209

The regression test results yielded a calculated F-value of 4.209 and a significance level of 0.007. This F-value is less than α 0.05, concluding that user satisfaction has a significant influence on application use. This aligns with Mahendra et al. (2020), who stated that user satisfaction has a strong influence on application use.

The calculated F-value of 4.209 and a significance level of 0.007 also indicate that the regression equation can be used to predict application use. The R-square value of 0.467 indicates that the percentage influence of user satisfaction on application use is 0.467, or 46.7%. The remaining 50.33% is influenced by factors outside the system quality variable. User satisfaction is the response and feedback after using an information system (Saputro et al., 2016). This response arises from ease of access, customer trust, and loyalty programs, which encourage users to visit the application (repeat visits) to seek information.

Web-based applications often store purchase histories, making it easier for users to reorder or make repeat purchases. Features like drug search, drug information, order tracking, online payment, and other conveniences encourage repeat purchases among users of IT-based applications. To gather user feedback on

their experience using an application, user surveys can be conducted to determine satisfaction with the application's functions, as presented in the form of service features. Satisfaction surveys can also be conducted to determine user needs and expectations regarding the application.

When user needs or expectations are met through an application, they will generate enjoyment. A pleasant experience while using an application will also have a positive impact, and this experience will ultimately lead to user satisfaction with IT-based applications.

Discussion

Telepharmacy is an innovative approach that utilizes telecommunications and technology to provide remote pharmacy services (Ghozali, 2024). Telepharmacy can be defined as the provision of pharmacy services by registered pharmacists through telecommunications to patients remotely (Rahayu et al., 2023). The telepharmacy approach addresses the growing need for greater accessibility, convenience, and cost-effectiveness in healthcare (Ghozali, 2024).

Information about telepharmacy services, including medication therapy, chronic disease management, adherence monitoring, prescription medication monitoring, and more (Cobelli et al., 2024) Telepharmacy services are similar to general pharmacy services, including prescription assessment and service, dispensing, drug information services (PIO), counseling, home pharmacy care, drug therapy monitoring (PTO), and side effect monitoring (MESO) (Aryanto et al., 2023; Rahayu et al., 2023).

Drug information services are provided by providing drug information and promotions through applications and providing information via social media (Aryanto et al., 2023). Drug therapy monitoring includes monitoring drug effectiveness, monitoring drug interactions, and monitoring side effects (Aryanto et al., 2023). Suboptimal treatment often occurs due, in part, to inaccurate prescription writing (Adams et al., 2024). In telepharmacy, prescriptions can be written through an app and immediate feedback can be provided via WhatsApp messaging platforms, including dosage, duration, and frequency. Electronic prescribing (e-prescribing) has the potential to reduce the number of errors that can occur with handwritten prescriptions (Smith, 2016). Electronic prescribing improves physicians' prescribing skills and helps prescribe the right medication for patients (Smith, 2016).

Prescription assessment and service are carried out by receiving the prescription through the app, discussing the prescription using the app, the type of medication needed, the user's gender, and age (Aryanto et al., 2023). Dispensing involves accepting medication orders through an app, accepting non-drug purchases through an app, delivering medication through staff, delivering through online services, providing close-quarters medication delivery, remote medication delivery, free medication delivery, and paid medication delivery (Aryanto et al., 2023)).

Counseling services include video chats with pharmacists, phone conversations with pharmacists, text chats with pharmacists, consultations with patients with chronic diseases, and consultations for special conditions (Aryanto et al., 2023).

Telepharmacy in Indonesia is implemented using web-based applications. Application use is not simply an intention to use (intention of use), as intention to use is merely an attitude and cannot be considered actual behavior (Mardiana et al., 2015). A person's behavior in using the web (application use) can be measured using various models, one of which is the DeLone and McLean (D&M) model.

Application use is the actual behavior when someone uses a web-based application. Application use is not merely an intention to use (intention of use), because intention to use is merely an attitude and cannot be considered actual behavior (Mardiana et al., 2015).

User perceptions of ease of use are a fundamental driver of application use intention (Venkatesh & Davis, 2000). Ease of use plays a positive and significant role in information system implementation, resulting in routine application use (Luo et al., 2024), while perceived benefits drive intention to use, leading to actual application use (Venkatesh & Davis, 2000).

In addition to ease of use, perceived benefits are also a key driver of intention to use, ultimately leading to actual application use (Venkatesh & Davis, 2000). Understanding the factors influencing application use can be used by online pharmacists to develop appropriate business strategies to ensure increased adoption of new service innovations (Sabat, 2020).

Application use brings numerous benefits to individuals and organizations based on the nature of the application's use for transactions and other purposes, ease of navigation, and the number of visits and purchases (DeLone & McLean, 2003). Application use is measured based on the dimensions of nature of use, navigation patterns, number of website visits, and number of transactions executed (DeLone & McLean, 2003).

Application use is measured based on the nature of use (DeLone & McLean, 2003). Users can use applications for various purposes, such as purchasing medication, searching for information, or using the information in the application to address health problems (Civan & Pratt, 2007). Users can also use applications for other purposes, as pharmacists' roles

extend beyond dispensing medication to assisting or monitoring patients at various stages of their health (Dores et al., 2024). Clinical pharmacists also play a non-clinical role by conducting educational and research activities (AlSaad et al., 2021).

Application use is measured based on navigation patterns (DeLone & McLean, 2003). Navigation patterns guide users through application features, including scrolling through pages, tabs, and expanding and collapsing application panels (Codina & Pérez-Montor, 2016). The navigation patterns displayed in an application make it easier for users to find the information they need (Nadasan, 2016). The ease of system navigation is strongly related to the information available within the application (Zhang & Kim, 2022).

Application usage is measured by the number of website visits (DeLone & McLean, 2003). The use of web-based applications facilitates teleconsultation, which can improve service access (Kestin et al., 2024; Musso et al., 2022). Application usage can also be determined by the frequency of daily use (Saputro et al., 2016). To increase the number of visits, application interfaces are updated, for example by adding real-time information features, visitor rooms, and so on (Wulansari et al., 2021). The adoption of telehealth services, including telepharmacy, saw a surge in customer numbers in 2019, increasing from 11% to 46% (Almeman, 2024).

Application usage is measured by the number of transactions executed (DeLone & McLean, 2003). Web-based applications can improve workflow efficiency by reducing non-service tasks (Cain et al., 2024). The use of applications makes services safer and more reliable, especially when purchasing prescription medications (Adjie et al., 2023). Customers prefer electronic transactions due to the ease of the shopping process, regardless of the amount (Ilieva et al., 2022). Digital transformation is marked by substantial growth in the digital pharmacy market, with a projected annual growth rate of 14.42% (Almeman, 2024).

User satisfaction is an attitude determined based on experience and reflects a person's assessment of the performance received (Layongan et al., 2022). User satisfaction is the overall use of technology, as indicated by feelings of fulfillment and pleasure, as well as satisfaction with the software and decision-making (Malungana & Motsi, 2024). User satisfaction is influenced by service value (Setiawan, 2021).

User satisfaction is the response and feedback generated by users after using an information system. User attitude toward an information system is a subjective criterion of how much the user likes the system (Saputro et al., 2016). User satisfaction is measured based on the dimensions of repeat visits, repeat purchases, and user surveys (DeLone & McLean, 2003).

User satisfaction is characterized by repeat visits (DeLone & McLean, 2003). User satisfaction can influence customer loyalty, which is demonstrated by repeat visits (Phonthanukitithaworn et al., 2020). Customer loyalty is related to service image, as a positive image can directly increase loyalty and user satisfaction (Phonthanukitithaworn et al., 2020). A pleasant experience when accessing web-based applications will increase visits to the application (Wulansari et al., 2021).

User satisfaction is characterized by repeat purchases (DeLone & McLean, 2003). Users visit transactional websites to purchase specific products or seek information (Ilieva et al., 2022). One key aspect of digital transformation is the increasing reliance on online pharmacy platforms, which results in repeat purchases (Almeman, 2024). Concern about risk is a factor that prevents customers from purchasing healthcare products and services from online pharmacies, so efforts are needed to increase acceptance of app use (Sabat, 2020).

User satisfaction is characterized by user surveys (DeLone & McLean, 2003). Healthcare consumers seek and use health information to address their health concerns (Civan & Pratt, 2007). Patients use apps to seek health-related information because the internet has become a primary means of communication for meeting their needs (Nadasan, 2016). User satisfaction surveys are conducted with individuals who have actually used the app, as application use should precede user satisfaction (Venkatesh & Davis, 2000).

Conclusion

User satisfaction can be used to measure the success of IT-based applications (application use). User satisfaction has a strong influence on application use. Using IT-based applications that store needed information makes it easier for users to revisit the application (repeat visits). IT-based applications also store purchase history, making it easier for users to reorder or make repeat purchases.

Acknowledgments

My gratitude goes to the Rector of Esa Unggul University Dr. Ir. Arief Kusuma Among Praja, MBA, Dean of the Faculty of Health Sciences Prof. Dr. Aprilita Rina Yanti EFF, M.Epid, Rina Anindita, Ety Nurhayati and friends who cannot be mentioned one by one without reducing my respect for their contributions so that this research can be carried out.

Author Contributions

Mulyo Wiharto: Drafted proposals, developed instruments, analyzed data, created reports, revised reports, and conducted

correspondence. Rina Anindita: Designed layouts, presented data, and analyzed data. Ety Nurhayati: Distributed questionnaires to respondents, collected data, and inputted data.

Funding
T The research did not receive funding from other parties.

Conflicts of Interest
The authors declare no conflict of interest.

References

Adams, A. J., Chopski, N. L., & Adams, J. A. (2024). How to implement a "standard of care" regulatory model for pharmacists. *Journal of the American Pharmacists Association*, *64*(3). https://doi.org/10.1016/j.japh.2024.02.007

Adjie, E. A., Calista, N., Muhtadiin, R. R., & Handayani, P. W. (2023). User switching intention from E-marketplace to E-pharmacy: The Influence of push, pull, and mooring factors. *Informatics in Medicine Unlocked*, *43*. https://doi.org/10.1016/j.imu.2023.101404

Almeman, A. (2024). The digital transformation in pharmacy: embracing online platforms and the cosmeceutical paradigm shift. *Journal of Health, Population and Nutrition*, *43*(1), 1–22. https://doi.org/10.1186/s41043-024-00550-2

AlSaad, D., Awaisu, A., AlHail, M., Ahmed, A., Moursi, A., Abdulrouf, P. V, ElKassem, E., & AlSaadi, M. (2021). Clinical pharmacy service innovation in an obstetrics and gynecology setting: A case study from Qatar, Pharmacy Practice Research Case Studies. *Pharmacy Practice Research Case Studies*, 25–39. https://doi.org/10.1016/B978-0-12-819378-5.00002-7

Aryanto, F., Khairunnisa, A., Rhea, B., Ilmi, M., Milenia, N., Salfa, R., & Putri, S. (2023). Penerapan Layanan Telefarmasi oleh Apoteker di Apotek Wilayah Surabaya pada Masa Pandemi COVID-19. *Jurnal Farmasi Komunitas*, *10*(1). Retrieved from https://e-journal.unair.ac.id/JFK/article/download/32940/24838

Cain, M., Bormann, T., Brosnahan, K., Kryc, C., & Rodis, J. (2024). Reprint of: The impact of SyncPlus on workflow in an independent pharmacy. *Journal of the American Pharmacists Association*, *64*(4). https://doi.org/10.1016/j.japh.2024.102161

Civan, A., & Pratt, W. (2007). Information systems and healthcare XXII: Characterizing and visualizing the quality of health information. *Communications of the Association for Information Systems*, *20*(18). https://doi.org/10.17705/1CAIS.02018

Cobelli, N., Cassia, F., Zardini, A., & Kuppelwieser, V. G. (2024). Pharmacies providing health services: Attitudes toward eHealth in Italy. *Journal of Retailing and Consumer Services*, *76*. https://doi.org/10.1016/j.jretconser.2023.103568

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: a ten-year update. *Journal of Management Information Systems*, *19*(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748

Ghozali, M. T. (2024). Assessment of knowledge, perception, and readiness for telepharmacy-assisted pharmaceutical services among young pharmacists in rural Indonesia. *Exploratory Research in Clinical and Social Pharmacy*, *16*(July), 100513. https://doi.org/10.1016/j.rcsop.2024.100513

Ilieva, G., Yankova, T., Klisarova, S., & Dzhabarova, Y. (2022). Customer Satisfaction in e-Commerce during the COVID-19 Pandemic. *Systems*, *10*(6). https://doi.org/10.3390/systems10060213

Ilkic, J., Milovanovic, M., & Marinkovic, V. (2024). Prospective systematic risk analysis of the digital technology use within pharmaceutical care. *Journal of the American Pharmacists Association*, *64*(4). https://doi.org/10.1016/j.japh.2024.102081

Kestin, R., Howe, A., Moose, J., Marciniak, M. W., & Rhodes, L. A. (2024). Impact of health information exchange access on medication management recommendations in a community-based pharmacy setting. *Journal of the American Pharmacists Association*, *64*(4). https://doi.org/10.1016/j.japh.2024.102104

Kurniawan, D., & Rojabi, M. A. (2026). *K24Klik: Transformasi Akses Farmasi Digital di Era Baru*. Afdan Rojabi Publisher.

Layongan, C., Nangoi, G. N., & Kalalo, M. K. (2022). Pengaruh Kualitas Sistem dan Kualitas Informasi Software SAP terhadap Kepuasan Pengguna pada PT PLN (Persero) Unit Pelaksana Pelayanan Pelanggan (UP3) Kotamobagu. *Jurnal LPPM Bidang EkoSosBudKum (Ekonomi, Sosial, Budaya, Dan Hukum)*, *5*(2), 309–322. Retrieved from https://shorturl.asia/p2kdc

Li, X., Guo, H., Li, D., & Zheng, Y. (2024). Engine of Innovation in Hospital Pharmacy: Applications and Reflections of ChatGPT. *Journal of Medical Internet Research*, *26*. https://doi.org/10.2196/51635

Luo, J., Ahmad, S. F., Alyaemeni, A., Ou, Y., Irshad, M., Alyafi-Alzahri, R., & Unnisa, S. T. (2024). Role of perceived ease of use, usefulness, and financial strength on the adoption of health information systems: The moderating role of hospital size. *Humanities & Social Sciences Communications*, *11*(1), 516. https://doi.org/10.1057/s41599-024-02976-9

Mahendra, I., Sulistianto, S. W., Mulyani, A., Wiyatno, A., & Rosanto, O. (2020). Assessing E-Commerce Success from a Millennial Perspective in Indonesia. *Journal of Physics: Conference Series*, *1641*(1). https://doi.org/10.1088/1742-6596/1641/1/012073

Malungana, L., & Motsi, L. (2024). An investigation of healthcare professionals' intention to use Smart Card Technology. *South African Journal of Information Management*, *26*(1), 1–11. https://doi.org/10.4102/sajim.v26i1.1663

Mardiana, S., Tjakraatmadja, J. H., & Aprianingsih, A. (2015). DeLone-Mclean information system success model revisited: The separation of intention to Use - Use and the integration of technology acceptance models. *International Journal of Economics and Financial Issues*, *5*(1), 172–182. Retrieved from https://dergipark.org.tr/en/pub/ijefi/article/352276

Musso, M., Pinna, R., Carrus, P. P., Veglianti, E., & Magnaghi, E. (2022). The Evolving Role of Pharmacies in the Digital Transformation Era: A Case Study from Italy. *Lecture Notes in Information Systems and Organisation*, *53*, 315–327. https://doi.org/10.1007/978-3-030-94252-6_23

Nadasan, V. (2016). The quality of online health-related information – an emergent consumer health issue. *Acta Medica Marisiensis*, *62*(4), 408–421. https://doi.org/10.1515/amma-2016-0048

Phonthanukitithaworn, C., Naruetharadhol, P., Gebsombut, N., Chanavirut, R., Onsa-ard, W., Joomwanta, P., Chanyuan, Z., & Ketkaew, C. (2020). An Investigation of the Relationship Among Medical Center's Image, Service Quality, and Patient Loyalty. *SAGE Open*, *10*(4). https://doi.org/10.1177/2158244020982304

Rahayu, F. R., Ramadhan, I. S., & Hendriani, R. (2023). Review Artikel : Pelaksanaan Telefarmasi Pada Pelayanan Kefarmasian Di Farmasi Komunitas. *Journal of Pharmaceutical and Sciences*, *6*(1), 273–280. https://doi.org/10.36490/journal-jps.com.v6i1.60

Sabat, K. C. (2020). Customer Usage Intention Of Online Pharmacies: A Developing Country's Perspective. *Journal of Services Research*, *20*(2). Retrieved from https://shorturl.asia/0ocLB

Sadiq, F., Hussain, T., Naseem, A., Mirza, M. Z., & Syed, A. A. (2022). The pursuit of disruptive innovations by middle managers: effects of the firm's customer orientation and mastery achievement goals. *Review of Managerial Science*, *16*(2), 551–581. https://doi.org/10.1007/s11846-021-00456-x

Saputro, P. H., Budiyanto, D., & Santoso, J. (2016). Model Delone and Mclean Untuk Mengukur Kesuksesan E-Government Kota Pekalongan. *Scientific Journal of Informatics*, *2*(1), 1–8. https://doi.org/10.15294/sji.v2i1.4523

Setiawan, R. (2021). The Effect of Service Quality and Service Value on Suroboyo Bus Passenger Satisfaction. *IOP Conference Series: Earth and Environmental Science*, *830*(1). https://doi.org/10.1088/1755-1315/830/1/012005

Smith, A. D. (2016). Barriers to accepting e-prescribing in the USA. *International Journal of Health Care Quality Assurance*, *19*(2), 158–180. https://doi.org/10.1108/09526860610651690

Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Widhiarso, A. (2021). Telemedicine dan telepharmacy: Tantangan dan perkembangan di masa pandemi covid-19. *Jurnal Farmasi Dan Kesehatan Indonesia*, *1*(1). https://doi.org/10.61179/jfki.v1i1.152

Wulansari, A., Prapanca, J. S., & Inayati, I. (2021). Mengukur kesuksesan website Rumah Sakit Darmo Surabaya menggunakan model Delone dan Mclean. *Teknologi*, *11*(1), 26–33. https://doi.org/10.26594/teknologi.v11i1.2229

Zhang, Y., & Kim, Y. (2022). Consumers' Evaluation of Web-Based Health Information Quality: Meta-analysis. *Journal of Medical Internet Research*, *24*(4). https://doi.org/10.2196/36463