

# Streamlining Rental Property and Equipment Processes: Design and Evaluation of an SMS Notification Solution

**Jovie Micayas Gallera**

College of Engineering and Information Technology, Surigao del Norte State University, Surigao City, Philippines  
jgallera@ssct.edu.ph

***Abstract:** Efficiently managing rental properties and equipment is vital for property owners, tenants, and equipment renters. This paper presents the design and evaluation of an SMS notification solution that integrates with a rental management system to streamline processes. The solution combines components like rental management software, SMS notification gateway, user interfaces, and mobile devices to enhance communication and automate rental processes. Evaluation criteria include usability, effectiveness, accuracy, portability, security, and maintainability. The solution demonstrates strong performance in all areas, providing intuitive interfaces, timely notifications, accurate information, compatibility with various devices, robust security measures, and maintainability for future enhancements. Overall, this solution proves valuable in optimizing operational efficiency and enhancing user experiences in rental property and equipment management.*

**Keywords:** Evaluation, rental property, equipment, SMS notification, streamlining processes

## REFERENCES

- [1]. Tilley, S. (2019). Systems analysis and design. Cengage Learning.
- [2]. Passaris, C. E. (2006). The business of globalization and the globalization of business. *Journal of Comparative International Management*, 9(1), 3-18.
- [3]. Jie, Y. U., Subramanian, N., Ning, K., & Edwards, D. (2015). Product delivery service provider selection and customer satisfaction in the era of internet of things: A Chinese e-retailers' perspective. *International Journal of Production Economics*, 159, 104-116.
- [4]. Mangca, D. (2023). Assessment of a Web-Based Boarding House Booking System with Notification Capability. *International Research Journal of Advanced Engineering and Science*, 8(2), 59-62.
- [5]. Rasolofo-Distler, F., & Distler, F. (2018). Using the balanced scorecard to manage service supply chain uncertainty: Case studies in French real estate services. *Knowledge and Process Management*, 25(3), 129-142.
- [6]. Fields, D., & Rogers, D. (2021). Towards a critical housing studies research agenda on platform real estate. *Housing, theory and society*, 38(1), 72-94.
- [7]. Chiu, R. L. H. (Ed.). (2006). Professional housing management practices in Hong Kong (Vol. 1). Hong Kong University Press.
- [8]. Ngai, E. W., Cheng, T. E., Au, S., & Lai, K. H. (2007). Mobile commerce integrated with RFID technology in a container depot. *Decision Support Systems*, 43(1), 62-76.
- [9]. Zhong, R. Y., Peng, Y., Xue, F., Fang, J., Zou, W., Luo, H., ... & Huang, G. Q. (2017). Prefabricated construction enabled by the Internet-of-Things. *Automation in Construction*, 76, 59-70.
- [10]. Dave, B., Kubler, S., Främling, K., & Koskela, L. (2016). Opportunities for enhanced lean construction management using Internet of Things standards. *Automation in construction*, 61, 86-97.
- [11]. Quinn, J. B., Baruch, J. J., & Paquette, P. C. (1987). Technology in services. *Scientific American*, 257(6), 50-59.

- [11]. Ito, M., & Okabe, D. (2005). Intimate connections: Contextualizing Japanese youth and mobile messaging. *The inside text: Social, cultural and design perspectives on SMS*, 127-145.
- [12]. Reyna, A.C. (2023), "Design and Development of FeedMe: A Scalable and Secure Web-based Food Delivery App" *International Research Journal of Advanced Engineering and Science*, Volume 8, Issue 2, pp. 140-144.
- [13]. Kraut, R. (Ed.). (2013). *Policy guidelines for mobile learning*. Unesco.
- [14]. Ives, B., Palese, B., & Rodriguez, J. A. (2016). Enhancing Customer Service through the Internet of Things and Digital Data Streams. *MIS Quarterly Executive*, 15(4).
- [15]. Alliance, S. C. (2007). Proximity mobile payments: Leveraging NFC and the contactless financial payments infrastructure. *Smart Card Alliance*.
- [16]. Madakam, S., Holmukhe, R. M., & Jaiswal, D. K. (2019). The future digital work force: robotic process automation (RPA). *JISTEM-Journal of Information Systems and Technology Management*, 16.
- [17]. Moffitt, K. C., Rozario, A. M., & Vasarhelyi, M. A. (2018). Robotic process automation for auditing. *Journal of emerging technologies in accounting*, 15(1), 1-10.
- [18]. Dustin, E., Rashka, J., & Paul, J. (1999). *Automated software testing: Introduction, management, and performance: Introduction, management, and performance*. Addison-Wesley Professional.
- [19]. Bach, S. B., & Kim, S. (2012). Online consumer complaint behaviors: The dynamics of service failures, consumers' word of mouth, and organization-consumer relationships. *International Journal of Strategic Communication*, 6(1), 59-76.
- [20]. Hawapi, M. W., Sulaiman, Z., Kohar, U. H. A., & Talib, N. A. (2017, June). Effects of perceived risks, reputation and electronic word of mouth (e-WOM) on collaborative consumption of uber car sharing service. In *IOP conference series: Materials science and engineering* (Vol. 215, No. 1, p. 012019). IOP Publishing.
- [21]. Conley, J., Snyder, G. D., Whitehead, D., & Levine, D. M. (2022). Technology-enabled hospital at home: innovation for acute care at home. *NEJM Catalyst Innovations in Care Delivery*, 3(3), CAT-21.
- [22]. Najera, P., Lopez, J., & Roman, R. (2011). Real-time location and inpatient care systems based on passive RFID. *Journal of Network and Computer Applications*, 34(3), 980-989.
- [23]. Chaveesuk, S., Chaiyasoonthorn, W., & Khalid, B. (2020, April). Understanding the Model of User Adoption and Acceptance of Technology by Thai Farmers: A Conceptual Framework. In *Proceedings of the 2020 2nd International Conference on Management Science and Industrial Engineering* (pp. 279-285).
- [24]. Shah, W. M., Arif, F., Shahrin, A. A., & Hassan, A. (2018). The implementation of an IoT-based flood alert system. *International journal of advanced computer science and applications*, 9(11).
- [25]. Cheng, J., Wong, S. H., Yang, H., & Lu, S. (2007, June). Smartsiren: virus detection and alert for smartphones. In *Proceedings of the 5th international conference on Mobile systems, applications and services* (pp. 258-271).