

**PERCEIVED EFFECTS OF SERVICE, PROCESS, AND SYSTEM
DIGITIZATION LEVELS ON GUEST RETENTION RATES IN STAR
RATED HOTELS IN NAIROBI CITY COUNTY, KENYA**

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DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented for an award of degree in this institution or any other University.

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Recommendations

This thesis has been examined, passed, and submitted with my approval as the University supervisor.

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DEDICATION

This research is dedicated to my parents Mrs. Mary Kerubo and my late dad Mr. Jeremiah Nyakoe, for their unwavering encouragement.

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ABSTRACT

The hospitality industry, particularly star-rated hotels in Nairobi City County, Kenya, is increasingly adopting digital technologies to enhance service quality and operational efficiency. As competition intensifies, guest retention has become crucial for sustaining business growth. Therefore, the study sought to address these knowledge gaps by evaluating the perceived effect of service, process, and system digitization on guest retention rates in star-rated hotels in Nairobi City County, Kenya. The study used a descriptive research design. It was conducted in 53 star-rated hotels in Nairobi that are listed in the Tourism Regulatory Authority. 6 departments were identified from each hotel purposively and a population of 450 respondents was allocated proportionately based on the number of hotels in each star rating category. A sample size of 211 respondents was calculated from the population using Yamanes (1967) formula. Proportionate Random Sampling was further used to allocate the 211 respondents accordingly. Data was collected by the researcher from June to August 2024 using structured questionnaires. The variables assessed included; service digitization, process digitization, and system digitization levels. The response rate was 100 percent while the reliability score of the entire dataset was 0.731 representing 73%. Descriptive data was analyzed through frequencies, percentages, and means. In objective i, inferential data on service digitization was conducted through factor analysis. In objective ii categorical regression was used for analyzing process digitization levels. In objective iii, Multinomial Logistic regression was used to analyze data on system digitization levels. Rotated factor analysis scores for service digitization levels indicated 3 major components. Component 1 had 12 factors related to electronic payment systems with scores ranging from 0.731- 0. 849. Component 2 indicated 2 factors relating to smartphone room keys, while Component 3 indicated 1 factor related to training of staff. The categorical regression fit for process digitization was quite robust scoring a value of ($R^2 = 0.979$, $F= 395.237$, $p < 001$). Significant coefficients in objective ii (process digitization) were; Porter robots ($B= 0. 209$, $p < 001$), Room assistant robots ($\beta = 0.332$, $p < 001$), Vacuum cleaning robots ($\beta = 0.262$, $p < 001$), and Artificial Intelligence ($\beta = 0.153$, $p < 001$). Multinomial Logistics regression model for system digitization had an acceptable model fit with scores of ($R^2 = 0.711$, $F= 40.284$, and $p < 0.001$). The significant coefficients were accounting systems ($B = 0.163$, $p = 0.021$) and security surveillance ($B = 0.341$, $p < 0.001$). Therefore, the study underscores the importance of digitizing services through electronic payment systems, and smart room technologies while integrating it with services rendered by trained employees. This points to the establishment of a Task- Technology- Fit by Star Rated Hotels. It demonstrated that process digitization can be achieved through robotics and artificial intelligence systems. These technologies may uplift the need of enhancing decision support through process digitization by hotels in Nairobi. Transparency of accounts, and customer's security were also cited as important aspects systems digitization that may contribute to improve of guest loyalty in Nairobi's star-rated hotels. The study recommends that the Star- Rated Hotels in Nairobi should integrate technological solutions with traditional personalized services to improve guest retention. Additionally, there is a need for constant staff training and the development of standard assessment criteria for these strategies to guarantee increased guest satisfaction and loyalty.