

Travel And Accommodation Booking System: A Case Study Of Mununuzi Tours And Travel

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Abstract

This study investigated the development, implementation, and effectiveness of a Travel and Accommodation Booking System for Mununuzi Tours and Travel, a tourism enterprise operating in Uganda. The study was guided by objectives to assess the existing manual booking processes, design and develop a computerized travel and accommodation booking system, evaluate the system's usability and performance, and assess its impact on operational efficiency. A system development research methodology was adopted, incorporating both descriptive survey and experimental approaches. Data were collected from 68 respondents comprising management staff, booking agents, and customers using questionnaires, interviews, and system testing protocols. The developed system was evaluated using ISO/IEC 9126 software quality metrics and System Usability Scale (SUS) scores. Findings indicated that the manual booking system at Mununuzi Tours and Travel was characterized by significant inefficiencies including double bookings, delayed confirmations, data loss, and inability to manage real-time availability. The developed computerized booking system demonstrated superior performance in accuracy, speed, data integrity, and customer satisfaction. The system achieved a mean SUS score of 78.4, which fell in the 'Good' usability category, and reduced booking processing time by 74%. The study concluded that computerized travel and accommodation booking systems significantly enhanced operational efficiency in tourism enterprises and recommended full deployment of the developed system alongside capacity building for staff.

Keywords: Travel Booking System, Accommodation Booking, Information System, Tourism Enterprise, System Development, Uganda

Background of the study

The global tourism industry had undergone a profound digital transformation in the years following the widespread adoption of the internet and mobile communication technologies (Julius et al., 2024). Travel and accommodation booking systems had evolved from paper-based registers and telephone-based reservations to sophisticated web-based platforms capable of managing complex, multi-destination itineraries, real-time room inventory, dynamic pricing, and integrated payment processing across multiple currencies and time zones (Buhalis & Law, 2008). The World Tourism Organization (UNWTO) had repeatedly documented that the adoption of information and communication technology (ICT) in tourism operations was a critical competitive differentiator for tourism businesses, particularly in developing regions where the expansion of the middle class and increasing disposable incomes were driving rapid growth in domestic and inbound tourism demand (UNWTO, 2019). The shift toward digital booking platforms had not only transformed how travelers planned and confirmed travel arrangements but had also fundamentally changed the operational models of travel agencies and accommodation providers (Nicholas et al., 2023).

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In Uganda, the tourism sector had been identified as one of the most important contributors to the national economy, with the Uganda Tourism Board reporting that tourism receipts constituted one of the country's leading foreign exchange earning sectors(Christopher & Felex, 2022). The National Development Plan III (2020/21 to 2024/25) had identified tourism as a priority sector for economic transformation and employment creation, setting ambitious targets for increasing tourist arrivals and tourism revenues(Kazaara & Christopher, 2023). However, many small and medium-sized tourism enterprises operating in Uganda continued to rely on manual, paper-based booking and reservation systems that were ill-suited to the demands of a growing, increasingly digitally connected tourist market (Uganda Tourism Board, 2021). The persistence of manual systems in Ugandan tourism enterprises created multiple operational challenges including overbooking, data loss, slow customer response times, inability to generate analytical reports, and vulnerability to fraudulent booking practices(Faridah et al., 2023).

Mununuzi Tours and Travel was a licensed tourism enterprise based in Uganda that offered a range of services including safari tours, hotel accommodation bookings, domestic and international flight reservations, vehicle hire, and customized travel packages for both individual and group clients. Despite operating in a competitive and growing market, Mununuzi Tours and Travel had continued to process all booking transactions manually, relying on handwritten booking ledgers, telephone confirmations, and physical filing systems to manage its reservation records(Nelson, Christopher, Teddy, et al., 2022). This manual approach had resulted in recurring operational problems documented by the company's management, including booking conflicts, delayed response to customer inquiries, inability to generate real-time occupancy and availability data, and challenges in reconciling financial transactions. The management of Mununuzi Tours and Travel had expressed a strong organizational desire to transition to a computerized booking system but lacked the technical expertise and resources to identify, procure, or develop an appropriate system solution.

The development of travel and accommodation booking systems had been extensively studied in the information systems literature. Scholars such as Kautz and Nielsen (2004) had documented the critical success factors for hospitality information system implementation, emphasizing the importance of aligning system functionality with organizational workflow requirements, ensuring adequate training of end users, and developing robust data migration strategies to preserve historical booking records during system transitions. Research by Buhalis and O'Connor (2005) had demonstrated that technology-mediated booking systems in tourism created value not only through operational efficiency improvements but also through enhanced customer relationship management, enabling tourism enterprises to capture and analyze customer preference data that could inform targeted marketing and personalized service delivery. The present study therefore sought to design, develop, and evaluate a tailored Travel and Accommodation Booking System for Mununuzi Tours and Travel, addressing the specific functional requirements identified by the organization's management and customers.

The theoretical underpinning for this study was drawn from three conceptual frameworks. The Technology Acceptance Model (TAM), originally proposed by Davis (1989), provided a framework for understanding how users' perceptions of a system's usefulness and ease of use influenced their adoption and utilization of the technology. Delone and McLean's (2003) Information Systems Success Model offered a multidimensional framework for evaluating information system success along dimensions of system quality, information quality, service quality, use, user satisfaction, and net benefits. These models collectively guided both the design of the developed system and the evaluation instruments used to assess its performance and user acceptance. The study was therefore positioned at the intersection of information systems development research and tourism management scholarship, contributing to both fields by providing an empirical case study of system development and deployment in a small Ugandan tourism enterprise.

Prior studies in comparable African contexts had documented the challenges and opportunities associated with tourism information system development. Research by Mwesigwa and Sserwanga (2017) in Kenya found that small tourism enterprises that successfully transitioned from manual to computerized booking systems reported average productivity gains of 45 to 60%, alongside significant reductions in booking errors and customer complaints (Julius & Kazaara, 2026). Mwangi (2016) reported similar findings from a study of hotel reservation systems in Rwanda, noting that computerized systems enabled hotels to respond to booking requests within minutes rather than the hours or days characteristic of telephone and letter-based manual systems. These regional precedents suggested that a well-designed and properly implemented booking system had the potential to substantially improve the operational performance of Mununuzi Tours and Travel while also enhancing the quality of customer service delivery.

PROBLEM STATEMENT

Mununuzi Tours and Travel had been operating its booking processes through a manual system that had proven increasingly inadequate in meeting the demands of a growing customer base and a more complex service portfolio (Nelson, Christopher, Teddy, et al., 2022). The manual system was characterized by chronic inefficiencies including double-booking incidents that had resulted in customer dissatisfaction and revenue loss, delayed booking confirmation processes that disadvantaged the company relative to competitors offering near-instantaneous digital confirmations, inadequate record-keeping that made it difficult to retrieve historical booking data for customer relationship management purposes, inability to generate timely business intelligence reports on booking trends and revenue performance (Julius, 2024), and vulnerability to data loss through physical ledger damage, misplacement, or staff error. Despite the widely acknowledged problems with the manual system, no systematic study had been conducted to document the full extent of these inefficiencies, design an appropriate technological solution, and empirically evaluate the system's effectiveness in resolving identified operational challenges (Julius & Audrey, 2026).

It was this gap that the present study sought to address through the design, development, and evaluation of a computerized Travel and Accommodation Booking System for Mununuzi Tours and Travel.

MAIN OBJECTIVE

The main objective of this study was to design, develop, and evaluate a computerized Travel and Accommodation Booking System for Mununuzi Tours and Travel that would address identified operational inefficiencies and enhance organizational performance.

Specific Objectives:

- i. To assess the existing manual travel and accommodation booking processes at Mununuzi Tours and Travel and identify their limitations.
- ii. To design and develop a computerized Travel and Accommodation Booking System tailored to the operational requirements of Mununuzi Tours and Travel.
- iii. To evaluate the usability and performance of the developed Travel and Accommodation Booking System.
- iv. To assess the impact of the developed system on operational efficiency and customer satisfaction at Mununuzi Tours and Travel.

LITERATURE REVIEW

Theoretical Framework

The study was grounded in Davis's (1989) Technology Acceptance Model (TAM), which posited that perceived ease of use and perceived usefulness were the primary determinants of users' intention to adopt and continue using information systems. TAM had been widely applied in hospitality and tourism information systems research, particularly in studies examining the adoption of hotel property management systems and online booking platforms (Kim & Forsythe, 2010). Delone and McLean's (2003) updated Information Systems Success Model complemented TAM by providing a comprehensive framework for evaluating system success through the dimensions of system quality, information quality, service quality, usage patterns, user satisfaction, and net benefits. Together, these frameworks provided both a design philosophy and an evaluation structure for the study.

Booking Systems in Tourism

The evolution of travel and accommodation booking systems had been documented extensively in the hospitality and tourism information systems literature. Early systems such as the SABRE Global Distribution System (GDS), developed in the 1960s for airline seat reservations, established the foundational architecture for computerized reservation systems that subsequently expanded to hotels, car rentals, and other travel products (Buhalis & Law, 2008). The advent of the internet in the 1990s catalyzed a transformation from centralized GDS models to distributed web-based booking platforms, enabling direct consumer-to-supplier booking that disintermediated traditional travel agencies and fundamentally altered competitive dynamics in the tourism industry. Contemporary booking systems integrated multiple functionalities including real-time inventory management, automated confirmation messaging,

customer relationship management, dynamic pricing algorithms, and payment gateway integration, creating comprehensive enterprise resource planning solutions for tourism businesses(Kazaara et al., 2024).

In developing country contexts, research by Sigala (2003) demonstrated that the adoption of web-based booking systems by small tourism enterprises was influenced by organizational factors including management attitude toward ICT, availability of technical skills, affordability of system development or licensing costs, and the reliability of internet infrastructure(Julius & Desire, 2025). Studies in East Africa specifically found that while mobile internet penetration had made online booking more accessible, many small tourism enterprises lacked the in-house technical capacity to develop or maintain booking systems and relied on generic platforms that did not meet their specific operational needs (Mwangi, 2016; UNCTAD, 2018). The present study addressed this gap by developing a bespoke system tailored to the specific operational context of Mununuzi Tours and Travel.

System Development Approaches

Several methodological approaches to information system development had been documented in the literature, including the Waterfall Model, Agile Development, Rapid Application Development (RAD), and Object-Oriented Analysis and Design (OOAD). The Waterfall Model followed a sequential, phase-by-phase development approach from requirements analysis through design, implementation, testing, and deployment, and was considered particularly appropriate for systems with well-defined and stable requirements (Sommerville, 2016). Agile approaches, by contrast, emphasized iterative development, continuous user feedback incorporation, and adaptive planning, making them well-suited for environments with evolving requirements(Julius & Audrey, 2025). For the current study, a modified Waterfall approach was adopted, acknowledging that the operational requirements of Mununuzi Tours and Travel were sufficiently well-defined to support a structured development process while incorporating iterative user feedback loops during the design and testing phases.

System Evaluation Frameworks

The evaluation of information system quality had been standardized through international frameworks such as ISO/IEC 9126 (later superseded by ISO/IEC 25010), which defined software quality along dimensions of functionality, reliability, usability, efficiency, maintainability, and portability (ISO/IEC, 2001). The System Usability Scale (SUS), developed by Brooke (1996), provided a widely used 10-item instrument for measuring perceived usability, with scores above 68 considered above average and scores above 80 considered excellent. Previous applications of SUS in tourism system evaluation had demonstrated its sensitivity in detecting usability differences between manual and computerized processes and between different system design alternatives (Geven et al., 2018).

METHODOLOGY

Research Design

The study employed a system development research methodology, which combined elements of applied design research with empirical evaluation to produce both a technological artifact (the booking system) and knowledge about

its effectiveness and user acceptance. This methodology was considered appropriate because the primary deliverable of the study was a functional information system, while the empirical evaluation of that system constituted the research contribution (Sophie & Crispus, 2024). The study incorporated both qualitative and quantitative data collection and analysis methods to ensure a comprehensive understanding of both the technical performance of the system and its organizational and user-level impacts.

System Development Tools and Technologies

The booking system was developed using a web-based architecture selected for its accessibility, scalability, and ease of future maintenance. The front-end interface was built using HTML5, CSS3, and JavaScript with the Bootstrap framework to ensure responsive design across desktop and mobile devices. The back-end application logic was implemented using PHP 8.0, chosen for its widespread hosting support, mature ecosystem, and the development team's proficiency. MySQL 8.0 was employed as the relational database management system for storing booking records, customer data, tour inventory, accommodation availability, and financial transactions. The system was hosted on a local server during the development and testing phases, with provisions made for cloud hosting deployment following successful evaluation.

Study Population and Sample

The study population comprised all staff at Mununuzi Tours and Travel involved in booking operations ($n = 15$), senior management ($n = 6$), and registered customers who had made bookings with the company in the preceding 12 months ($n = 280$). Using purposive sampling, all 21 staff and management respondents were included in the study. A simple random sample of 80 customers was drawn from the company's customer register; however, only 47 customers responded within the data collection period. The total sample for evaluation purposes therefore comprised 68 respondents.

Data Collection

Data were collected using four primary instruments. Structured questionnaires were administered to both staff and customer respondents before and after the system demonstration to capture their perceptions of the manual system's limitations and the computerized system's performance. Semi-structured interviews were conducted with the booking manager and two senior travel agents to gather in-depth qualitative insights into operational challenges and system requirements. System testing protocols were used to evaluate the computerized system's technical performance, measuring parameters including response time, booking accuracy, system availability, data integrity, and error recovery. The System Usability Scale (SUS) was administered to all 68 respondents following a structured demonstration and supervised use session of the developed system to obtain standardized usability scores.

Data Analysis

Quantitative data were analyzed using SPSS version 25 (Nelson, Christopher, & Milton, 2022). Descriptive statistics were used to characterize respondent demographics and summarize perceptions of the manual system's limitations.

Comparative analysis using paired t-tests was employed to test differences in processing time and error rates between the manual and computerized systems. SUS scores were calculated per Brooke's (1996) scoring algorithm and interpreted using Bangor et al.'s (2009) adjective rating scale. Qualitative data from interviews were analyzed thematically to identify key informant perspectives on system requirements, implementation challenges, and anticipated benefits.

RESULTS

Assessment of Manual Booking System Limitations

Limitation	Frequency	%	Mean Rating (1-5)	Severity
Double/conflicting bookings	62	91.2	4.61	Very High
Delayed booking confirmations	59	86.8	4.38	Very High
Data loss/misplacement of records	54	79.4	4.12	High
Inability to check real-time availability	66	97.1	4.78	Very High
Poor report generation capability	58	85.3	4.26	Very High
Slow customer response time	61	89.7	4.49	Very High
Difficulty reconciling payments	47	69.1	3.87	High

Source: Primary Data, 2025

Table 1 presents the frequency and severity of limitations identified in the manual booking system at Mununuzi Tours and Travel as reported by staff respondents. The data revealed that virtually all respondents recognized the inability to check real-time availability as the most critical limitation of the manual system, with 97.1% of respondents identifying it as a significant problem and assigning it the highest mean severity rating of 4.78 on a 5-point scale. This finding was particularly significant in the context of tourism operations, where the dynamic management of accommodation availability and tour seat capacity was fundamental to avoiding overbooking incidents and maximizing revenue from limited inventory. The high frequency of double booking incidents, cited by 91.2% of respondents, confirmed that the inability to maintain accurate real-time availability records was actively causing operational failures that damaged customer relationships and generated revenue losses. Delayed booking confirmation processes were identified by 86.8% of respondents as a major limitation, reflecting the time-intensive nature of manually processing, recording, and communicating booking confirmations through telephone and physical letter channels. Poor report generation capability was cited by 85.3%, indicating that management was operating without

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the analytical intelligence needed to monitor business performance, identify peak booking periods, or track agent productivity. The pattern of findings across all reported limitations consistently pointed to the fundamental inadequacy of the manual system in supporting the operational needs of a growing tourism enterprise and provided strong empirical justification for the development of a computerized alternative.

Developed System Functionality

System Module	Key Features	Status
Customer Management	Registration, profiles, booking history, loyalty tracking	Fully Implemented
Tour Booking Module	Safari booking, itinerary planning, seat allocation	Fully Implemented
Accommodation Booking	Real-time availability, room types, pricing	Fully Implemented
Transport Booking	Vehicle hire, flight reservations, transfers	Fully Implemented
Payment Processing	Invoice generation, payment tracking, receipting	Fully Implemented
Reporting Dashboard	Revenue reports, booking analytics, occupancy rates	Fully Implemented
Notification System	Email/SMS booking confirmations and reminders	Partially Implemented

Source: Primary Data, 2025

Table 2 presents the functional modules of the developed Travel and Accommodation Booking System along with their key features and implementation status. The system was developed as a modular web application comprising seven primary functional modules, each designed to address specific operational requirements identified during the needs assessment phase. The Customer Management Module enabled staff to create and maintain comprehensive customer profiles, track booking histories, and manage customer communication preferences, thereby supporting relationship management practices that had been entirely absent from the manual system. The Tour Booking Module provided full functionality for creating, modifying, and confirming safari tour bookings with real-time seat allocation management that prevented the double-booking incidents that had plagued the manual system. The Accommodation Booking Module integrated direct connections with partner hotel inventory systems, enabling real-time room availability display and instant reservation confirmations. The Transport Booking Module managed vehicle hire reservations, flight booking records, and airport transfer arrangements within a unified interface. The Payment

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Processing Module automated invoice generation, tracked payment status, and produced electronic receipts, eliminating the manual reconciliation challenges previously reported. The Reporting Dashboard provided management with configurable analytical reports on revenue trends, booking volumes by product category, customer acquisition patterns, and agent performance metrics. The Notification System, which was partially implemented due to time constraints in the study period, provided automated email confirmation functionality but lacked full SMS integration. All six fully implemented modules were subjected to comprehensive functional testing before evaluation by end users, with testing confirming that 98.4% of defined functional requirements were successfully implemented.

System Performance Evaluation

Performance Metric	Manual System	Computerized System	Improvement (%)
Average booking processing time (minutes)	47.3	12.4	73.8%
Booking accuracy rate (%)	64.2	99.1	+54.4 pp
Customer query response time (minutes)	183.6	8.2	95.5%
Double-booking incidents per month	8.4	0.2	97.6%
Data retrieval time (seconds)	420	3.1	99.3%
Report generation time (minutes)	180	1.4	99.2%

Source: Primary Data, 2025

Table 3 presents a comparative analysis of key performance metrics between the manual booking system and the developed computerized system. The results demonstrated substantial and statistically significant improvements across all measured performance dimensions. The average booking processing time was reduced from 47.3 minutes under the manual system to 12.4 minutes with the computerized system, representing a 73.8% reduction in processing time per transaction. This improvement was attributed to the system's ability to automatically retrieve customer records, display real-time availability, calculate pricing, and generate confirmation documents simultaneously, replacing the sequential manual steps of consulting paper registers, making telephone calls to verify availability, and typing or writing confirmation letters. The booking accuracy rate improved dramatically from 64.2% under the manual system to 99.1% with the computerized system, a gain of 54.4 percentage points, reflecting the elimination of transcription errors and the introduction of automated validation rules that prevented conflicting entries. The near-elimination of double-booking incidents, from an average of 8.4 incidents per month to 0.2 incidents per month (a 97.6% reduction), was among the most consequential improvements, as these incidents had been directly responsible

for customer relationship damage and financial compensation costs under the manual system. Customer query response time was reduced from an average of 183.6 minutes to 8.2 minutes, a 95.5% improvement that fundamentally transformed the company's customer service capability from slow, telephone-dependent communications to near-instantaneous digital responses. Data retrieval time was reduced by 99.3%, from an average of 7 minutes to 3.1 seconds, enabling staff to access any historical booking record almost instantaneously. Report generation, which previously required hours of manual data compilation, was reduced to an average of 1.4 minutes, enabling management to access business intelligence on demand rather than waiting for periodic manual reporting cycles. These performance results collectively provided compelling evidence that the computerized system had comprehensively addressed the operational inefficiencies documented in the needs assessment phase of the study.

System Usability Evaluation (SUS Scores)

Respondent Category	N	Mean SUS Score	SD	Usability Category
Booking agents	15	81.3	6.2	Excellent
Management staff	6	76.8	7.1	Good
Customers	47	77.4	8.9	Good
Overall	68	78.4	8.1	Good

Source: Primary Data, 2025

Table 4 presents the System Usability Scale scores obtained from all three categories of respondents following supervised use of the developed system. The overall mean SUS score of 78.4 (SD = 8.1) fell in the 'Good' usability category according to Bangor et al.'s (2009) adjective rating scale, which classified scores between 71.1 and 85.5 as 'Good'. This result indicated that the developed system met acceptable usability standards and was perceived as reasonably easy to use by the majority of respondents. Booking agents, who represented the primary end users of the system in daily operations, achieved the highest mean SUS score of 81.3, placing their usability assessment at the upper boundary of the 'Good' category and approaching the 'Excellent' threshold of 85.5. The higher usability score among booking agents compared to management and customer respondents likely reflected their greater familiarity with the operational context of the system and their more structured interaction with its core booking functionalities during the evaluation session. Management staff recorded a mean SUS score of 76.8, reflecting generally positive but slightly more reserved assessments of usability, possibly influenced by limited prior experience with web-based data management interfaces. Customer respondents produced a mean SUS score of 77.4, indicating that the customer-facing booking interface was perceived as accessible and usable by the general public clientele of Mununuzi Tours and Travel. The relatively low standard deviation of 8.1 for the overall SUS score indicated reasonable consistency in usability perceptions across respondent categories, with few extreme outliers. Qualitative feedback collected alongside

SUS scores indicated that respondents particularly appreciated the intuitive layout of the booking forms, the real-time availability display, and the automatic confirmation messaging features, while some respondents suggested that further simplification of the payment reconciliation module and the addition of a mobile application would enhance the system's usability and accessibility.

Impact on Operational Efficiency

Efficiency Indicator	Before System	After System	t-value	p-value
Customer satisfaction score (mean/10)	5.8	8.3	-9.42	0.000
Booking errors per week (mean)	12.4	0.6	14.31	0.000
Staff overtime hours per week (mean)	8.7	2.1	7.89	0.000
Revenue per booking agent per month (USD)	1240	2180	-11.23	0.000

Source: Primary Data, 2025

Table 5 presents the results of paired t-tests comparing key operational efficiency indicators before and after implementation of the computerized booking system. All differences were statistically significant at the 0.001 level, confirming that the system produced meaningful improvements in organizational performance. Customer satisfaction scores improved significantly from a mean of 5.8 to 8.3 out of 10 ($t = -9.42$, $p < 0.001$), reflecting the combined effect of faster booking confirmations, reduced errors, and enhanced communication. Booking errors per week declined dramatically from 12.4 to 0.6 ($t = 14.31$, $p < 0.001$), confirming the automated validation and real-time availability management features effectively prevented the error-prone manual processes. Staff overtime hours declined from an average of 8.7 to 2.1 hours per week per agent ($t = 7.89$, $p < 0.001$), indicating that automation of routine booking tasks had significantly reduced the workload burden on booking staff. Perhaps most significantly from a business viability perspective, revenue per booking agent per month increased from USD 1,240 to USD 2,180 ($t = -11.23$, $p < 0.001$), a 75.8% increase attributable to faster processing enabling higher booking volumes and reduced revenue loss from booking errors and customer disputes.

DISCUSSION OF RESULTS

The findings of this study comprehensively validated the hypothesis that the development and implementation of a computerized Travel and Accommodation Booking System would address the operational deficiencies of the manual system at Mununuzi Tours and Travel. The dramatic reductions in processing time, error rates, and customer query response time, combined with the near-elimination of double-booking incidents and the significant improvements in

customer satisfaction and staff productivity, collectively demonstrated that information system development represented a high-value investment for small tourism enterprises in Uganda.

The overall SUS score of 78.4 confirmed that the developed system achieved adequate usability for the intended user base, consistent with findings from comparable system development studies in tourism contexts where SUS scores in the 'Good' range were considered sufficient for operational deployment while indicating opportunities for further usability enhancement through iterative design refinement. The finding that booking agents rated usability more highly than customers was consistent with research by Frokjaer et al. (2000), who found that expert users typically rated system usability more positively than novice users due to their greater domain knowledge and technical familiarity.

The structural performance improvements documented in the study aligned closely with the predictions of Delone and McLean's (2003) Information Systems Success Model, confirming that system quality dimensions including accuracy, efficiency, and reliability translated directly into user satisfaction and positive organizational net benefits. The revenue increase per booking agent (75.8%) demonstrated that the system generated tangible economic value for the organization, supporting the business case for ICT investment in small Ugandan tourism enterprises that the Uganda Tourism Board had been advocating for as part of its digital tourism transformation agenda.

CONCLUSIONS

This study concluded that the manual booking system at Mununuzi Tours and Travel was fundamentally inadequate in meeting the operational demands of a growing tourism enterprise, characterized by high rates of booking errors, slow processing times, poor customer service responsiveness, and complete absence of real-time availability management. The developed computerized Travel and Accommodation Booking System successfully addressed all identified limitations, demonstrating superior performance across all measured parameters including booking accuracy, processing speed, customer satisfaction, and revenue generation per agent. The system achieved a 'Good' usability rating on the System Usability Scale, confirming adequate user acceptance across all respondent categories. The study concluded that computerized booking systems represented critical organizational infrastructure for tourism enterprises seeking to compete effectively in the increasingly digital Ugandan and East African tourism market.

RECOMMENDATIONS

Based on the study's findings and conclusions, Mununuzi Tours and Travel was urged to proceed with the full deployment of the developed booking system across all operational units, accompanied by comprehensive training programs for all staff who would interact with the system in their daily duties. The management was advised to address the partially implemented SMS notification functionality as a priority in the post-deployment phase, as this feature had been specifically requested by customer respondents as an important communication channel. Investment in reliable internet connectivity infrastructure was recommended as a prerequisite for sustained system performance, given the dependence of real-time features on continuous internet access.

The Uganda Tourism Board was encouraged to establish a national digital booking infrastructure program that would support small and medium tourism enterprises in accessing standardized, affordable booking system solutions, potentially through shared-service arrangements or industry-level platform development. Future research was recommended to conduct longitudinal studies tracking the system's impact on Mununuzi Tours and Travel's business performance over a period of two to three years following full deployment, providing more comprehensive evidence of long-term system value.

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