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The Digital Concierge: Role of Chatbots in Front Office Guest Inquiry Management in the Hospitality Industry

N. Ramesh

*Assistant Professor, Department of Marine Catering and Hotel Management
Subbalakshmi Lakshmiathy College of Science, Madurai*

B. Mohit

*I year, Department of Marine Catering and Hotel Management
Subbalakshmi Lakshmiathy College of Science, Madurai*

Abstract

The hospitality sector is leveraging digital technology to cope with increase in consumer demands for speed, accuracy and personalized service. This paper reviews AI-based chatbots utilized for reception desk at frontline of the hospitality industry, especially for hotels and marine catering operations. It delves into advantages of incorporating AI chatbots as part of front office functions to take over mundane consumer queries and providing incentives such as ease of operation and 24/7 availability to customers for successful implementation. The benefits in terms of reducing operational costs and the shortcoming of no compatibility with customer rapport building using artificial intelligence are discussed in this argument. This research using secondary sources and industry overview depicts the application, advantageous features and limitations of chatbots assisting the management of hospitality front office functions.

Keywords: Chatbots, Front Office Operations, Hospitality Industry, Artificial Intelligence, Guest Inquiry Management

Introduction

The front office is essential for creating guest perceptions about their hotel experience according to the hospitality industry. The first guest contact point functions as a service provider interaction area. The front office of hotels and marine catering services handles all guest operations by managing bookings and responding to guest questions while coordinating with other departments and solving guest problems. The front office determines guest satisfaction through its service delivery which builds guest loyalty and establishes the overall brand reputation. The conventional front office systems are experiencing mounting pressure because of the strong growth in global tourism and increased market competition together with the rising digital expertise of customers. Modern guests demand instant replies with precise details and custom service which should be accessible at all times throughout the day. The combination of

Gretzel, Fesenmaier, and OLeary (2022) pointed out that chatbots are like digital concierges in the smart hospitality ecosystems. Their study found that the combination of chatbots with property management systems (PMS) and customer relationship management (CRM) platforms boosts the personalization of services. The paper analysis that lack of proper integration between systems can restrict chatbot features and therefore decrease guest trust in such solutions.

Luo, Tong, Fang, and Qu (2023) studied the effect of guest satisfaction and AI contributions to the service experience in hotels. The findings revealed that chatbots indeed enhance guest satisfaction when used for informational and operational services, such as answering queries and fulfilling service requests. The authors of the paper also indicated that guests are less receptive to chatbots in emotionally charged situations, which further strengthens the argument for the indispensable role of human touch in hospitality services..

Khan, Amin, and Al, Obaidi (2023) says that the main concept for the adoption of chatbots in hotel industry for operational efficiency and cost reduction. Author found that chatbots assist in reduce the burden on front office staff by managing standard queries from guests, thus allowing staff to concentrate on delivering personalized and more complicated services. Additionally, their study indicated that employee acceptance and training are critical to successful chatbot implementation.

Mariani and Borghi (2024) discussed AI uses in hotel front office practices and noted that chatbots play a crucial role in enhancing service accessibility by offering support in multiple languages and being available at all times. The authors also noted that customer request quhandling with the aid of chatbots increases the perceived reliability of the service for international clients and large hospitality businesses. However, data privacy issues, cyber security threats, and lack of algorithmic transparency continue to be important challenges.

Verma, Sharma and Sheel, (2024), focused on the customers' perception based for AI service technology in hotels of India. They revealed that guests highly value the speed and convenience of chatbot services but at the same time, they prefer the human touch for complaint handling and service recovery. The researchers suggested a combination of chatbot efficiency and human empathy in a hybrid service model to ensure maximum guest satisfaction.

Research Methodology

Research Design

The research employs a descriptive and analytical study design to investigate the impact of chatbots on front office guest inquiry management in the hotel industry. Descriptive design was chosen as the best way to systematically summarize, organize, and present the current knowledge on this newly technological application.

Data Sources

Secondary data from peer, reviewed journals, conference papers, industry reports, hospitality technology publications, and reputable internet sources formed the basis of the research. The use of secondary data enables the compilation of a wide range of academic and industry viewpoints within a specified period, thus offering an all, round view free from primary data collection limitations.

Sampling Technique

We employed purposive sampling method to identify research articles in the period from 2018 to 2024, which investigated the use of chatbots in hospitality and service industries.

Data Analysis

The text was then analyzed using qualitative content analysis to find key themes such as operational efficiency, guest satisfaction, service quality and implementation difficulties.

Limitations of the Study

The study is based on secondary data only and does not have primary empirical validation. Also, rapid developments in AI technology might affect the long, term relevance of the findings.

Applications of Chatbots in Front Office Operations

Chatbots have become a popular tool in front office operations for the service industry to increase efficiency and the overall level of service for customers. These AI, based solutions facilitate guest communications of various natures, including queries related to reservations and collection of feedback after a stay. They have been widely adopted as hotel and marine catering hospitality digital assistants owing to their feature of delivering immediate responses and supplying standard information. For instance, hospitality chatbots handle customers hotel booking and amenities inquiry, as well as help them locate the local concierge services. On the other hand, marine hospitality chatbots such as those found on cruise ships and offshore vessels, help in a great way toward meal scheduling, accommodating special diets, and organizing different activities on-board; thus, here in such limited, connectivity settings communication becomes a real challenge, the chatbot being the best solution. Table 1 illustrates support of major front office functions by chatbots alongside the resulting service benefits. We can see that it depicts how chatbot utilization leads to quicker customer service, around the clock service availability, and better coordination between different departments.

Table 1 Major Front Office Functions Supported by Chatbots

Front Office Function	Chatbot Role	Service Outcome
Reservation handling	Booking assistance, confirmations	Faster response time
Guest inquiries	FAQs, facility/onboard service information	24/7 availability
Check-in support	Pre-arrival guidance, e-key distribution	Reduced front desk congestion
Service requests	Housekeeping, maintenance, meal service requests	Improved response coordination
Feedback collection	Surveys and complaint logging	Enhanced service improvement

Chatbots make it possible for the front office to wipe out the whole or a significant part of the routine tasks that, in turn, enable hospitality establishments to optimize their operating activities and at the same time provide services on a consistent basis. In addition to this on board, marine catering chatbots can also assist in meal planning and dietary service as well as coordination between departments of service which will reduce physical work and delay communication time (boundaries) when there is less gab for the customer is valued more here where personal visits with guest front desk are very often impracticable.

Benefits of Chatbot Adoption in Front Office Operations

The use of chatbot technology also gives a so many operational and strategic benefits to hospitality firms. The main aim of chatbots is to entertain the repetitive inquiries of guests, thereby significantly freeing up the front office staff that can then deliver faster services.

Table 2 show the major benefits of chatbot implementation in front office operations, with a focus on efficiency, cost control, guest satisfaction, and staff productivity.

Table 2 Benefits of Chatbot Adoption in Front Office Operations

Dimension	Benefit Description
Operational efficiency	Automation of repetitive inquiries
Cost reduction	Reduced dependence on front desk manpower

Guest satisfaction	Instant responses and service consistency
Multilingual service	Better support for international guests
Staff productivity	Allows staff to focus on complex guest needs

All these positives together result in a higher quality of service and better guest perception. A well-balanced hybrid service model is made possible by chatbots, which function more like digital concierges and complement human employees rather than replacing them.

Challenges in Chatbot Implementation

The implementation of chatbots in front office operations faces a number of challenges, such as technical constraints, system integration issues, and guest-related problems that may affect the efficacy of chatbot systems. The primary obstacles to implementing chatbots in the front office of the hospitality industry are analyzed in Table 3.

Table 3 Challenges in Chatbot Implementation

Challenge	Description
Lack of emotional intelligence	Inability to handle sensitive guest issues
System integration	Difficulty integrating with PMS and CRM systems
Data privacy	Handling of personal and booking data
Technical limitations	Dependence on quality datasets
Guest resistance	Preference for human interaction

In detail, first, there is a need for careful planning, continuous system updates, and effective human-AI collaboration. Hospitality organizations must ensure seamless escalation from chatbot to human staff in order to maintain service quality and guest trust.

Discussion

The research results reveal that chatbots are a very effective mechanism to bring in greater efficiency in the front office by automating repetitive and time-consuming guest inquiries. Besides answering queries instantly, their service capability makes service delivery consistent and thus, reduces the stress levels of the front desk staff, mostly on the busiest days. This results in the staff being more productive and the human resources being better allocated. Additionally, chatbots help raise guest satisfaction levels by being accessible around the clock and delivering uniquely personalized interactions through different stored guest data points. It is also possible for hotels to bring in chatbots extensionally through a variety of digital means so that guests get to interact on whichever platform they prefer. Besides, if service is offered in two or more languages, then it is more accessible to international guests. Such features are of utmost importance in marine catering and cruise operations. With 24/7 service, it is easy to cater to passengers in different time zones or those on various cruise itineraries. Besides that, the language skills are useful in handling the needs of a very diverse, international passenger cohort and thus, in clear communication of information about dining options, activity schedules, and onboard services.

The discussion also brought out some issues though. Chatbots without emotional intelligence might have difficulty or be completely helpless with guest issues that are complicated and/or of a sensitive nature and thus, require empathy as well as human judgement. Guest experience can be marred to a certain extent through overreliance on automation, especially if transition to human customer care happens to be far from smooth or in other words ‘not seamless’. A very crucial factor

to be considered when using chatbots is the safety of the data and privacy of the users, as chatbots normally handle very personal and hence sensitive data that must be secured and protected at all times, which is a big concern of customers.

Conclusion and Recommendations

Chatbots have rapidly become game, changing tools for the front offices of hotels to handle guest inquiries efficiently. Their capacity to promptly provide accurate and consistent answers perfectly matches the wants of today's guests who are constantly connected with their digital devices. A well, thought, out and, executed implementation of these mobile agents will certainly result in operational cost, saving, improved service efficiency and, ultimately, higher guest satisfaction levels. In marine catering where the situations on, board and the passenger groups are extremely diverse, chatbots not only solve the communication problems but also offer inexhaustible service availability desp

Chatbots should be viewed by hotels as an additional digital tool that works in tandem with people, not as a replacement for them. A smooth integration with current PMS software, frequent updates to the chatbot's knowledge base, and strong data privacy are three essential components of a successful chatbot implementation. In addition to that, frontline staff members who will be at the forefront of the hybrid model should be properly equipped and trained. They should be kept in the loop at all times since they will be the direct mediators should things get out of hand. For marine workers, such preparatory sessions are also likely to involve getting familiar with the very operations, service, and conditions on, board the vessel. It would be beneficial for future investigations to carry out direct studies involving guests in order to gather their opinions and monitor the effects of chatbot usage over time. As AI keeps getting smarter, there's no doubt that chatbots will usher in the new era of front office operations.

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