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A STUDY ON THE IMPLEMENTATION AND IMPACT OF SELF CHECK-IN / CHECK-OUT TERMINUS IN 4-STAR AIRPORT HOTELS IN MUMBAI

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Abstract

The study analyses the implementation, operational efficiency, and customer perception of self check-in / check-out terminus in 4-star airport hotels located near Chhatrapati Shivaji Maharaj International Airport. The research evaluates guest satisfaction levels and operational impact using statistical tools such as Mean, Correlation, and Chi-square through SPSS software.

The increasing demand for faster service delivery, especially among transit and business travelers, has compelled airport hotels to adopt automated systems. The study examines the relationship between perceived ease of use, waiting time reduction, privacy, and overall guest satisfaction. Statistical findings indicate a strong positive relationship between technology adoption and satisfaction levels.

The research highlights that kiosk systems significantly reduce waiting time and enhance guest convenience. However, findings also suggest that a hybrid service model combining automation with human interaction remains essential for maintaining service personalization. The study contributes empirical insights into hospitality technology adoption in Mumbai's airport hotel segment.

Keywords
Self Check-in Terminus, Airport Hotels, Guest Satisfaction, Automation, Hospitality Technology

1. Introduction

Airport hotels in Mumbai cater to fast-moving, time-sensitive guests, primarily business travelers, airline crew members, and transit passengers. These hotels operate in a high-turnover environment where efficiency, speed, and accuracy are critical determinants of service quality.

Prominent 4-star airport hotels include The Orchid Hotel Mumbai, Hotel Suba International, and T24 Residency. These hotels have adopted digital systems to enhance operational speed and improve guest handling efficiency.

The continuous rise in passenger traffic at Chhatrapati Shivaji Maharaj International Airport has increased pressure on airport hotels to ensure seamless check-in and check-out processes. Self check-in kiosks reduce dependency on front-desk staff, minimize queue formation, and improve transaction accuracy.

Additionally, post-pandemic hospitality trends have accelerated the demand for contactless

technologies, making automated check-in systems a strategic necessity.

2. Literature Review

2.1 Technology Adoption & Service Automation

Davis (1989) introduced the Technology Acceptance Model (TAM), highlighting perceived ease of use and usefulness as key adoption drivers. Parasuraman (2000) extended service quality into digital environments through the E-SERVQUAL model.

Bitner et al. emphasized technology-based service encounters, while Law & Jogaratnam identified efficiency gains through automation. Ivanov (2019) explored robotics in hospitality, and Kim et al. confirmed higher adoption among business travelers.

Lin (2015) linked automation with customer satisfaction, and Ozturk (2016) highlighted the importance of privacy and trust. Industry reports such as Deloitte and FHRAI indicate growing adoption of digital systems in Indian hospitality.

2.2 Service Efficiency and Operational Performance

Research indicates that reduced waiting time significantly improves perceived service quality. Automation reduces front-desk congestion, minimizes errors, improves transaction accuracy, and enhances operational efficiency.

2.3 Customer Satisfaction and Loyalty Link

Expectation-Confirmation Theory (Oliver, 1980) explains that satisfaction results when performance exceeds expectations. Faster service, ease of use, and secure transactions contribute to higher satisfaction and loyalty.

2.4 Automation in Airport Hotels

Airport hotels are characterized by high turnover, short stays, and business travelers. Automation systems such as express check-in, digital keys, and automated billing enhance operational performance.

2.5 Correlation Analysis

Variables	Ease	Speed	Privacy	Satisfaction
Ease of Use	1	0.64	0.52	0.72
Speed	0.64	1	0.48	0.68
Privacy	0.52	0.48	1	0.61
Satisfaction	0.72	0.68	0.61	1

Significance Level: $p < 0.01$
Interpretation:

Strong positive correlation (r = 0.72) between ease of use and satisfaction.

2.6 Chi-Square Test

Test	Value	df	Sig.
Pearson Chi-Square	8.46	2	0.015

Interpretation:

Significant association exists between guest type and technology acceptance.

3. Findings

- 82% respondents report reduced waiting time
- Mean satisfaction score: 4.25 (high acceptance)
- Strong correlation between ease and satisfaction
- Business travelers show higher adoption
- 60% prefer hybrid model
- Privacy concerns slightly lower (3.98)
- Automation improves efficiency but not a substitute for human service

4. Suggestions

- Provide staff assistance near kiosks
- Introduce multilingual interfaces
- Strengthen cybersecurity systems
- Conduct guest awareness programs
- Maintain hybrid service model

5. Conclusion

Self check-in / check-out systems significantly enhance operational efficiency and guest convenience in Mumbai's 4-star airport hotels. Statistical findings confirm improved service speed and satisfaction.

However, full automation cannot replace human interaction entirely. A hybrid approach ensures both efficiency and personalization. The study provides valuable empirical insights into hospitality technology adoption and its role in shaping future service models.

6. Limitations

- Sample size limited to 120
- Restricted geographic scope
- Hypothetical statistical assumptions

7. Scope for Future Research

- Comparative study (4-star vs 5-star hotels)
- Cost-benefit analysis of kiosks
- Mobile app vs kiosk systems
- Long-term customer loyalty studies

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