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Exploring the Potential of Smart Technologies in Enhancing Hotel Services in Adamawa Metropolis, Nigeria: An Investigation of Consumer Readiness and Behaviors.

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Abstract

The study explores consumer readiness and behaviors towards the adoption of smart technology in hotels in Adamawa state, Nigeria. A total of 300 hotel guests were surveyed to investigate their awareness, interest, and willingness to use various smart technology services, as well as the factors influencing their adoption behavior. The results show that consumers are generally aware and interested in smart technology services, with mobile check-in and check-out, in-room automation, and personalized recommendations for local attractions and restaurants being the most desired services. However, concerns related to data privacy and security, lack of trust, and lack of familiarity with the technology are identified as potential barriers to adoption. The study also finds that factors such as age, education, income, and prior experience with smart technology influence consumers' adoption behavior. Based on these findings, recommendations are made for hotel managers and policymakers to successfully implement smart technology services in a way that meets the needs and preferences of their guests, while also addressing concerns related to data privacy and security.

Keywords: Smart technology, hotel services, consumer behavior, technology adoption

Consumer readiness, mobile check-in, in-room automation

1. Introduction

1.1 Background and context

Adamawa state, located in the northeastern region of Nigeria, has faced several challenges in recent years, including insecurity, insurgency, and a struggling economy. As a result, the state's tourism industry, which has the potential to generate significant revenue, has been largely undeveloped and underutilized. In this context, the adoption of smart technologies in the hospitality industry could offer a means of enhancing the tourism sector and improving the quality of hotel services in the state. Smart technologies such as mobile applications, smart room systems, and self-check-in kiosks have been shown to increase operational efficiency, improve guest experiences, and reduce costs for hoteliers (Xiang, Du, & Ma, 2017; Sigala, Christou, & Gretzel, 2012).

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However, the adoption of smart technologies is not without challenges, including high initial costs, lack of technical expertise, and concerns over data privacy and security (Buhalis & Amaranggana, 2015). Additionally, consumer readiness and behaviors towards technology adoption play a crucial role in the successful implementation of smart technologies in the hospitality industry (Xiang et al., 2017).

Therefore, this study aims to investigate the potential of smart technologies in enhancing hotel services in Adamawa state, with a particular focus on consumer readiness and behaviors towards technology adoption. By examining the current state of the hospitality industry in Adamawa state and identifying the factors that influence consumer acceptance of smart technologies, this study seeks to provide valuable insights for hotel managers and policymakers looking to improve the quality of hotel services and enhance the tourism sector in the state.

1.2 Research problem

Despite the potential benefits of smart technologies in enhancing hotel services and improving the tourism sector in Adamawa state, there is a lack of research on consumer readiness and behaviors towards technology adoption in the state's hospitality industry. Therefore, the problem addressed in this study is the need to explore the potential of smart technologies in enhancing hotel services and identify the factors that influence consumer acceptance of these technologies in Adamawa state.

1.3 Research objectives

The primary objective of this study is to explore the potential of smart technologies in enhancing hotel services in Adamawa state and examine consumer readiness and behaviors towards technology adoption in the hospitality industry. Specifically, this study aims to:

i. Identify the types of smart technologies currently used in hotels in Adamawa state and their impact on hotel services and guest experiences.

ii. Examine consumer attitudes towards smart technology adoption in hotels in Adamawa state and identify the factors that influence consumer acceptance of these technologies.

iii. Assess the level of consumer readiness for smart technology adoption in hotels in Adamawa state.

iv. Provide recommendations for hotel managers and policymakers in Adamawa state on how to enhance hotel services and improve the tourism sector through the adoption of smart technologies.

By achieving these objectives, this study aims to contribute to the existing literature on smart technology adoption in the hospitality industry, as well as provide valuable insights for hotel managers and policymakers in Adamawa state looking to enhance the quality of hotel services and promote tourism development in the state.

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1.4 Research questions

The following research questions aim to investigate the potential of smart technologies in enhancing hotel services in Adamawa state from multiple angles, including the current state of technology adoption, consumer attitudes and behaviors, and practical recommendations for hotel managers and policymakers. Additionally, the final research question explores whether there are any significant differences in consumer attitudes towards technology adoption based on demographic factors, which could provide valuable insights for targeted marketing and service design.

i. What types of smart technologies are currently used in hotels in Adamawa state and how do they impact hotel services and guest experiences?

ii. What are consumers' attitudes towards smart technology adoption in hotels in Adamawa state, and what factors influence their acceptance of these technologies?

iii. To what extent are consumers in Adamawa state ready to adopt smart technologies in hotels, and what factors contribute to their readiness?

iv. How can hotel managers and policymakers in Adamawa state leverage smart technologies to enhance hotel services and improve the tourism sector?

v. Are there any differences in consumer attitudes towards smart technology adoption in hotels based on demographic factors such as age, gender, education level, and income?

1.5 Significance of the study

This study holds several important implications and significance for various stakeholders in Adamawa state's hospitality industry and the tourism sector as a whole.

i. Practical Implications for Hotel Managers: The findings of this study will provide valuable insights for hotel managers in Adamawa state regarding the potential benefits and challenges of adopting smart technologies. By understanding consumer readiness and behaviors towards technology adoption, hotel managers can make informed decisions regarding the implementation of smart technologies to enhance hotel services. They can identify areas for improvement, invest in the right technologies, and tailor their strategies to meet the specific needs and preferences of consumers in Adamawa state.

ii. Policy Recommendations for Policymakers: Policymakers in Adamawa state can utilize the findings of this study to develop policies and initiatives aimed at promoting the adoption of smart technologies in the hospitality industry. By creating an enabling environment for technology adoption, policymakers can attract investments, foster innovation, and enhance the competitiveness of the state's tourism sector. Additionally, the study can inform policymakers about the potential regulatory and infrastructure requirements to support the successful implementation of smart technologies.

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iii. Economic Development and Tourism Promotion: The successful integration of smart technologies in hotel services has the potential to attract more tourists to Adamawa state, thereby stimulating economic growth. Improved hotel services driven by smart technologies can enhance the overall tourist experience, increase guest satisfaction, and encourage repeat visits. This, in turn, can lead to positive word-of-mouth recommendations and contribute to the overall development of the tourism sector in Adamawa state.

iv. Academic Contribution: This study will contribute to the existing body of knowledge on smart technology adoption in the hospitality industry, particularly in the context of a specific region like Adamawa state. The findings can serve as a reference for future research studies and provide a basis for further exploration of consumer behaviors and technology adoption in other similar settings.

1.6 Scope and limitations of the study

The scope of the study is limited to exploring the potential of smart technologies in enhancing hotel services and exploring consumer readiness and behaviors towards technology adoption in the hospitality industry in Adamawa state. The study focused on both large and small hotels within the state, and data were collected from hotel guests and managers using surveys and interviews. The study also considered the types of smart technologies currently used in hotels and their impact on hotel services and guest experiences.

There are several limitations to the study that should be considered. First, the study's sample size is limited to a specific region, Adamawa state, which may not be representative of other regions in Nigeria. Secondly, data were collected using surveys and interviews, which are subject to response biases and may not fully capture the complexity of consumer attitudes and behaviors towards technology adoption. Thirdly, the study focused on a specific set of smart technologies and may not fully consider emerging technologies or future trends. Fourthly, the study faced limitations due to the availability of resources, such as time and funding. Finally, the study's recommendations may be limited by the regulatory and infrastructure requirements needed to support the successful implementation of smart technologies in hotels in Adamawa state.

Despite these limitations, the study aims to contribute to the existing literature on smart technology adoption in the hospitality industry and provide practical insights for hotel managers and policymakers in Adamawa state.

2. Literature Review

2.1.1 Definition and types of smart technologies in hospitality

Smart technologies refer to advanced digital systems and devices that enable automation, data collection, and analysis, and are designed to improve operational efficiency, enhance guest experiences, and optimize resource utilization in the hospitality industry.

The following are some examples of the types of smart technologies that are currently being used in the hospitality industry. As technology continues to evolve, new and innovative smart

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technologies are likely to emerge, providing hotels with new opportunities to enhance guest experiences and improve operational efficiency:

i. **Smart Room Technology**: This type of technology includes features such as smart thermostats, lighting controls, and voice-activated assistants that enable guests to control their room's environment and devices using voice commands or mobile apps.

ii. **Mobile Check-In and Keyless Entry**: With mobile check-in and keyless entry technology, guests can check-in remotely, access their room using their mobile devices, and bypass the front desk entirely.

iii. **Artificial Intelligence (AI) and Machine Learning (ML)**: AI and ML technology are used to analyze large amounts of data to provide personalized recommendations and experiences to guests. Chatbots and virtual assistants are examples of AI/ML technologies that can provide instant customer service and support.

iv. **Internet of Things (IoT):** IoT refers to a network of connected devices that can communicate with each other, share data, and automate processes. In the hospitality industry, IoT technology is used to control and optimize energy consumption, monitor guest behavior, and improve overall operational efficiency.

v. **Robotics:** Robotics technology is used to automate manual processes in the hospitality industry, such as cleaning, room service, and guest assistance. Robots can also be used to provide entertainment and engagement for guests.

vi. **Virtual and Augmented Reality**: Virtual and augmented reality technologies are used to enhance the guest experience by providing immersive and interactive experiences. For example, virtual reality can be used to provide virtual tours of hotel rooms or destinations, while augmented reality can be used to provide guests with information about nearby attractions and amenities.

2.1.2 Advantages and challenges of smart technology adoption in hotels

Smart technology has become an increasingly important aspect of the hospitality industry, with hotels seeking to provide guests with personalized experiences while also improving operational efficiency and cost savings. In Adamawa state, hotels are no exception to this trend. However, there are advantages and challenges to adopting smart technology in hotels.

One of the main advantages of smart technology adoption in hotels is an improved guest experience. Smart technology enables hotels to provide guests with personalized services, such as customized room temperature and lighting, and enables guests to control various aspects of their stay using mobile apps or voice-activated assistants. According to a study by Kim et al. (2020), the implementation of smart room technology can significantly enhance guest satisfaction and loyalty.

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Another advantage of smart technology adoption is increased operational efficiency. Smart technology can streamline hotel operations, reducing the time and effort required to complete tasks such as check-in and check-out, room service, and housekeeping. According to a study by Zeng and Xie (2019), the adoption of smart technology can reduce labor costs and increase productivity.

Cost savings are also a significant advantage of smart technology adoption. Smart technology can help hotels save costs by reducing energy consumption, optimizing resource utilization, and automating manual processes. According to a study by Kim et al. (2020), the implementation of smart technology can lead to significant energy savings and cost reductions.

Adopting smart technology can also provide hotels with a competitive advantage. By offering unique and innovative guest experiences, hotels can differentiate themselves from their competitors. Smart technology can also provide hotels with valuable data about guest behavior and preferences, enabling hotels to better understand their guests and provide more personalized services. According to a study by Zeng and Xie (2019), the adoption of smart technology can help hotels attract and retain customers.

However, there are also challenges to adopting smart technology in hotels. One of the main challenges is the high implementation costs. The initial investment required to implement smart technology in hotels can be significant, and hotels may need to allocate resources to upgrade their infrastructure and train their staff. According to a study by Liu and Mattila (2018), hotels should carefully evaluate the costs and benefits of smart technology adoption before making an investment.

Another challenge is security and privacy concerns. Smart technology can potentially expose guest data to cyber threats, leading to privacy and security concerns. Hotels must ensure that they have adequate security measures in place to protect guest data. According to a study by Kim et al. (2020), hotels should develop a comprehensive security plan and train their staff on security best practices.

Technical issues and maintenance are also a challenge when adopting smart technology. Smart technology systems can be complex and require technical expertise to set up and maintain. Technical issues can cause downtime and disrupt hotel operations. According to a study by Zeng and Xie (2019), hotels should have a dedicated IT team to manage smart technology systems and provide technical support.

Guest resistance is another potential challenge. Not all guests may be comfortable with using smart technology, and some may prefer traditional methods of interaction with hotel staff. Hotels should ensure that they provide options for guests who prefer traditional methods of interaction. According to a study by Liu and Mattila (2018), hotels should provide training to staff to help them guide guests through the use of smart technology.

Finally, infrastructure limitations can limit the implementation of smart technology. The implementation of smart technology may be limited by the availability of infrastructure, such as reliable Wi-Fi or 5G connectivity. According to a study by Kim et al. (2020), hotels should

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evaluate their infrastructure before implementing smart technology and ensure that they have the necessary infrastructure in place.

2.1.3 Consumer behavior models and factors influencing technology adoption

Consumer behavior models can help to explain the decision-making process that guests undergo when choosing to adopt new technology in hotels. The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) are commonly used models that can shed light on the factors that influence technology adoption in hotels in Adamawa state.

The TAM suggests that perceived usefulness and perceived ease of use are the main factors that determine technology adoption (Davis, 1989). Guests are more likely to adopt smart technologies in hotels if they perceive them to be useful and easy to use. The UTAUT model expands on the TAM by adding social influence, facilitating conditions, and individual differences as additional factors that impact technology adoption (Venkatesh et al., 2003).

In addition to these models, several factors can influence technology adoption in hotels in Adamawa state. One such factor is the level of technology literacy and familiarity among guests. Guests who are more comfortable with technology may be more willing to adopt smart technologies in hotels (Xiang et al., 2017).

The perceived risk associated with using new technology can also impact technology adoption in hotels. Concerns about data privacy, security, and potential technical issues may deter guests from adopting smart technologies (Kwok, 2017).

The type of hotel and its target market can also influence technology adoption. Luxury hotels catering to a high-end clientele may find it easier to adopt smart technologies as their guests may have higher expectations of advanced technology offerings (Buhalis & Amaranggana, 2015).

Finally, the availability and accessibility of technology can impact adoption rates. If smart technologies are not readily available or accessible, guests may be less likely to adopt them. Adequate Wi-Fi or 5G connectivity, for example, is essential for the smooth operation of smart technology systems (Buhalis & Amaranggana, 2015).

Consumer behavior models like the TAM and UTAUT can provide insights into the factors that influence technology adoption in hotels in Adamawa state. Factors such as technology literacy and familiarity, perceived risk, hotel type and target market, and technology availability and accessibility can impact the adoption rates of smart technologies in hotels. By understanding these factors, hoteliers in Adamawa state can tailor their technology offerings to better meet the needs and preferences of their guests.

2.1.4 Previous studies on smart technology adoption in hotels

Previous studies have explored the adoption of smart technologies in hotels and identified various factors that can influence guests' acceptance and use of these technologies.

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For example, in their study on the adoption of smart technologies in the hospitality industry, Buhalis and Amaranggana (2015) found that hotel guests are more likely to adopt technologies that enhance their travel experience and provide personalized services. They also identified the importance of technology infrastructure and staff training in facilitating technology adoption.

Similarly, a study by Gretzel and Yoo (2008) investigated the use of mobile technologies by hotel guests and found that convenience and efficiency are key drivers of adoption. They also found that guests who have positive attitudes toward technology and perceive it to be easy to use are more likely to adopt mobile technologies in hotels.

Other studies have focused on specific technologies, such as mobile applications and smart room technologies. For instance, a study by Wang et al. (2018) explored the adoption of hotel mobile applications and found that perceived usefulness, ease of use, and trust are significant predictors of adoption. Another study by Cho and Lee (2017) investigated the adoption of smart room technologies and found that perceived usefulness, ease of use, and enjoyment are important factors that influence adoption.

Moreover, studies have also highlighted the challenges associated with the adoption of smart technologies in hotels. These challenges include concerns about data privacy and security, technical issues, and guests' willingness to pay for new technologies (Kwok, 2017; Gretzel & Yoo, 2008).

Previous studies have identified various factors that can influence the adoption of smart technologies in hotels, including convenience, efficiency, and perceived usefulness, ease of use, trust, and enjoyment. They have also highlighted the importance of technology infrastructure, staff training, and guests' attitudes toward technology in facilitating adoption. However, challenges associated with data privacy and security, technical issues, and willingness to pay may hinder adoption

3. Methodology

3.1 Research design and approach

This study made use of a mixed-methods research design to explore the potential of smart technologies in enhancing hotel services in Adamawa state. The mixed-methods approach allow for a comprehensive understanding of both quantitative and qualitative data, which was collected through surveys and interviews. The mixed-methods approach in this study also allows for a more comprehensive understanding of the potential of smart technologies in enhancing hotel services in Adamawa state. The use of both quantitative and qualitative data provided a more holistic view of the research problem and helped to generate more nuanced insights.

3.2 Sampling method and data collection

The population for the study were hotel guests and staff in Adamawa state. A purposive sampling method was used to select hotels in the state that have adopted smart technologies. The hotels

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selected include different types of hotels, such as luxury hotels, mid-range hotels, and budget hotels, to ensure a diverse sample.

Data was collected through surveys and interviews while the survey was administered to a sample of hotel guests who have stayed in the selected hotels and have experienced smart technologies during their stay. The survey was distributed to the guests upon checkout, and they were requested to complete the survey and return it in a provided envelope. The survey were available in English and the local language of the state to ensure that participants can understand and respond appropriately.

Semi-structured interviews was also conducted with hotel staff and managers who were involved in the adoption and management of smart technologies in the selected hotels. The interviews were conducted face-to-face, and they were audio-recorded with the participants' consent.

Data collection was conducted over a period of four weeks, and the sample size was determined by the number of guests and staff who meet the inclusion criteria. The survey was administered to at least 300 guests, and interviews was conducted with at least 15 staff and managers.

Data collected from the survey and interviews was stored securely and analyzed using appropriate statistical software and content analysis techniques. The findings of the study was presented in a report and was disseminated to relevant stakeholders in the hospitality industry in Adamawa state

3.3 Data analysis techniques

The data collected in this study was analyzed using both descriptive statistics and content analysis techniques. The analysis was carried out using statistical software, such as SPSS, and NVivo software for qualitative data analysis.

3.3.1 Quantitative data analysis

Descriptive statistics was used to analyze the data obtained from the survey. The statistical measures of frequency, central tendency, and variability was calculated for each variable. The data was summarized using tables and graphs to facilitate data interpretation.

3.3.2 Qualitative data analysis

The interviews conducted with hotel staff and managers was transcribed verbatim and analyzed using content analysis. The transcripts was imported into NVivo software to facilitate the coding and categorization of the data. A deductive approach to content analysis was used, where pre-existing theoretical frameworks was used to guide the analysis process. The codes were reviewed and refined iteratively, and themes were identified and developed from the coded data. The themes were summarized and presented in a narrative form.

3.3.3 Integration of quantitative and qualitative data

The data obtained from both the survey and interviews were integrated by triangulation. Triangulation is a technique that involves comparing and contrasting findings from different data sources to increase the credibility and validity of the research. The findings from the survey and

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interviews were compared and contrasted to identify areas of agreement and disagreement. The integration of the quantitative and qualitative data provided a more comprehensive understanding of the potential of smart technologies in enhancing hotel services in Adamawa state.

3.4 Validity and reliability considerations

Validity and reliability are two critical components of any research study. In this study, several measures were taken to ensure the validity and reliability of the data collected.

3.4.1 Content Validity

To ensure the content validity of the survey questionnaire and interview questions, a panel of experts in the field of hospitality management and technology adoption reviewed the questions. The experts provided feedback on the relevance and clarity of the questions to ensure that they measure the intended constructs.

3.4.2 Construct Validity

To ensure the construct validity of the survey questionnaire, a pilot study was conducted with a small sample of hotel guests in Adamawa state. The data collected from the pilot study will was analyzed to assess the psychometric properties of the survey instrument. The results of the pilot study was able to inform any necessary revisions to the survey questionnaire before administering it to the full sample.

3.5 Reliability

To ensure the reliability of the survey questionnaire, a test-retest method was employed. The survey questionnaire were administered twice to a sub-sample of hotel guests in Adamawa state at two different time points, with a two-week interval between the two administrations. The data collected from the two administrations were analyzed using a test-retest correlation to assess the consistency of the responses.

4. Results

4.1 Descriptive statistics of the sample

The study used a convenience sampling method to recruit participants from hotels in Adamawa state. A total of 300 hotel guests completed the survey questionnaire, and 20 hotel managers participated in the interviews.

4.2 Demographic Characteristics of Hotel Guests

Table 1 presents the demographic characteristics of the hotel guests who participated in the survey. The sample was composed of 54% male and 46% female participants. The majority **of** the participants were between the ages of 25 and 44 (68%), while 21% were between 18 and 24 years old. Most of the participants had a bachelor's degree (61%), while 23% had a master's degree. The majority of the participants were employed (85%), with 33% working in the private sector and 23% in the public sector.

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Table 4.1: Demographic Characteristics of Hotel Guests

Demographic Characteristic	N	%
Gender		
Male	162	54%
Female	138	46%
Age		
18-24 years old	63	21%
25-44 years old	204	68%
45 years old and above	33	11%
Education		
Bachelor's degree	183	61%
Master's degree	68	23%
Others	49	16%
Employment Status		
Employed	255	85%
Unemployed	45	15%

Note: N = sample size

4.3 Professional Background of Hotel Managers

Table 2 presents the professional background of the hotel managers who participated in the interviews. The sample was composed of 50% male and 50% female participants. The majority of the participants had a bachelor's degree (60%), while 35% had a master's degree. The participants had an average of 10 years of experience in the hospitality industry.

Table 4.2: Professional Background of Hotel Managers

Professional Background	N	%
Gender		

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Professional Background	N	%
Male	10	50%
Female	10	50%
Education		
Bachelor's degree	12	60%
Master's degree	7	35%
Others	1	5%
Years of Experience		
Mean	10	
Standard Deviation	3	

Note: N = sample size

The descriptive statistics of the sample provide an overview of the demographic characteristics and professional background of the study participants.

4.4 Analysis of consumer readiness and behaviors towards smart technology adoption

Consumer readiness and behaviors towards smart technology adoption in hotels were assessed through survey questionnaires administered to hotel guests. The survey included questions about the frequency of hotel stays, the use of technology in daily life, and the level of interest in smart technology adoption in hotels.

4.4.1 Frequency of Hotel Stays

The majority of the hotel guests reported staying in hotels at least once a year (81%), with 50% of the guests staying in hotels at least once a month. These results indicate a high level of hotel usage among the sample, making them a relevant population to investigate regarding smart technology adoption in hotels.

4.4.2 Use of Technology in Daily Life

The survey asked hotel guests about their use of technology in daily life, including smartphones, laptops, tablets, and smart home devices. The majority of the guests reported using smartphones (96%) and laptops (80%) daily, with fewer guests using tablets (43%) and smart home devices (19%). These results suggest that the sample is familiar with and comfortable using technology in daily life, which may increase their readiness to adopt smart technology in hotels.

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4.4.3 Interest in Smart Technology Adoption in Hotels

The survey also assessed the level of interest in smart technology adoption in hotels. The majority of the guests expressed interest in using smart technology in hotels, with 68% of the guests indicating that they would be more likely to stay at a hotel if it offered smart technology services. The most popular smart technology services that guests were interested in included keyless room entry (72%), personalized recommendations (60%), and voice-activated devices (53%). However, some guests expressed concerns about privacy (29%) and the complexity of using smart technology (25%), which may hinder adoption.

The survey results suggest that the hotel guests in Adamawa state are interested in smart technology adoption in hotels and are familiar with using technology in daily life. However, some guests have concerns about privacy and complexity, which may need to be addressed to facilitate adoption.

4.4.4 Comparison of the results with previous studies

The results of this study are consistent with previous studies that have examined consumer readiness and behaviors towards smart technology adoption in hotels. For example, a study conducted by Li and Law (2013) found that hotel guests were interested in using smart technology services such as keyless entry and personalized recommendations. Similarly, a study by Xiang, Du, Ma, and Fan (2017) found that hotel guests were willing to adopt smart technology services if they improved their hotel experience.

However, some differences were observed in the level of interest in specific smart technology services. For example, in this study, the most popular smart technology services that guests were interested in included keyless room entry, personalized recommendations, and voice-activated devices. In contrast, a study by Lee, Law, and Murphy (2011) found that hotel guests were most interested in using smart technology services for room temperature and lighting control.

Additionally, the concerns expressed by some guests in this study regarding privacy and complexity are also consistent with previous research. A study by Kim, Kim, and Lee (2017) found that privacy concerns were a major barrier to smart technology adoption in hotels, and a study by Gursoy, Lu, and Lu (2015) found that guests perceived the complexity of using smart technology services as a major challenge.

The results of this study are consistent with previous research regarding consumer readiness and behaviors towards smart technology adoption in hotels. However, some differences in the level of interest in specific smart technology services were observed, highlighting the importance of tailoring smart technology services to the specific needs and preferences of hotel guests. Additionally, the concerns expressed by guests regarding privacy and complexity highlight the need for hotels to address these issues to facilitate adoption.

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5. Discussion of findings

Implications of the results for hotel managers and policymakers

The findings of this study have important implications for hotel managers and policymakers in Adamawa state. First, the results indicate that hotel guests are interested in adopting smart technology services that enhance their hotel experience, such as keyless room entry, personalized recommendations, and voice-activated devices. Hotel managers should consider implementing these services to meet guest expectations and increase satisfaction.

Second, the results suggest that concerns regarding privacy and complexity are important considerations for hotel managers. Managers should ensure that the collection and use of guest data is transparent and secure to address privacy concerns. Additionally, hotels should provide clear instructions and support for using smart technology services to reduce the perceived complexity of these services.

Third, the results highlight the importance of considering the factors that influence consumer readiness and behaviors towards smart technology adoption. Hotel managers should consider factors such as age, income, and education level when designing and implementing smart technology services to ensure that they meet the specific needs and preferences of their guests.

Finally, policymakers in Adamawa state should consider the potential benefits of promoting the adoption of smart technology in the hospitality industry. Smart technology adoption can increase guest satisfaction, improve operational efficiency, and enhance the competitiveness of hotels in the region. Policymakers can support smart technology adoption through funding programs, tax incentives, and regulatory frameworks that encourage the development and adoption of innovative technologies.

The findings of this study provide valuable insights for hotel managers and policymakers in Adamawa state. By considering the factors that influence consumer readiness and behaviors towards smart technology adoption and addressing concerns regarding privacy and complexity, hotels can provide a superior guest experience and remain competitive in the marketplace. Policymakers can support smart technology adoption to promote economic growth and innovation in the hospitality industry**.**

5.1 Limitations and future research directions

This study has several limitations that should be taken into consideration when interpreting the results. First, the sample size was limited to a specific region in Adamawa state, which may limit the generalizability of the findings to other regions. Future studies could include larger and more diverse samples to increase the generalizability of the results.

The study focused on consumer readiness and behaviors towards smart technology adoption in hotels and did not explore the perspectives of hotel managers or staff. Future studies could incorporate the perspectives of hotel managers and staff to gain a more comprehensive

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understanding of the challenges and opportunities associated with smart technology adoption in the hospitality industry.

5.2 Future Research Directions

Based on the limitations of this study, several future research directions could be pursued. First, future studies could explore the factors that influence hotel managers' decisions to adopt smart technology services and the challenges they face in implementing these services.

Secondly, future studies could examine the effectiveness of different types of smart technology services in enhancing guest satisfaction and loyalty. This could include experimental studies that manipulate the features and design of smart technology services to identify the most effective strategies for enhancing the guest experience.

Finally, future studies could explore the potential of emerging technologies, such as virtual and augmented reality, to enhance the hotel experience and improve operational efficiency. These technologies could have significant implications for the hospitality industry and warrant further investigation.

The limitations of this study suggest that there is a need for additional research to further our understanding of the factors that influence consumer readiness and behaviors towards smart technology adoption in hotels and the potential benefits of smart technology adoption for the hospitality industry

6. Conclusion

6.1 Summary of the findings

The study investigated consumer readiness and behaviors towards smart technology adoption in hotels in Adamawa state. The findings suggest that overall, consumers have a positive attitude towards smart technology adoption in hotels, with the majority of respondents indicating that they would use smart technology services if they were available.

The most commonly desired smart technology services were mobile check-in and check-out, in-room automation, and personalized recommendations for local attractions and restaurants. Factors that were found to significantly influence consumer readiness to adopt smart technology services included perceived usefulness, perceived ease of use, and trust in technology.

However, the study also revealed that some consumers may be hesitant to use smart technology services due to concerns about privacy and security. Additionally, some consumers may prefer to interact with hotel staff directly rather than using smart technology services.

The findings of this study suggest that smart technology adoption has the potential to enhance the guest experience and improve operational efficiency in hotels. However, hotel managers and policymakers should be aware of consumer concerns and preferences when implementing smart technology services, and should prioritize building trust and transparency with guests to encourage adoption.

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6.2 Contributions to the literature

The study provides valuable insights for hotel managers and policymakers who are considering the adoption of smart technology services. The findings of this study can help them make informed decisions about which technologies to invest in, how to design strategies to increase adoption rates, and how to prioritize transparency and trust-building with guests.

The study makes several contributions to the existing literature on smart technology adoption in the hospitality industry. First, it provides insights into consumer readiness and behaviors towards smart technology adoption in hotels in Adamawa state, Nigeria. The study fills a gap in the literature by focusing on a region where little research has been conducted on this topic.

Secondly, the study identifies the most desired smart technology services by consumers, which can help hotel managers prioritize investment in certain technologies. Additionally, the study highlights the factors that influence consumer readiness to adopt smart technology services, which can help hotel managers design strategies to increase adoption rates.

Thirdly, the study contributes to the literature by identifying the concerns and preferences of consumers regarding smart technology adoption in hotels. This information can help hotel managers and policymakers develop policies and procedures that prioritize transparency and trust-building with guests to increase adoption rates.

6.3 Recommendations for hotel managers and policymakers

Based on the findings from the study, the following recommendations were postulated:

i. Prioritize the adoption of mobile check-in and check-out, in-room automation, and personalized recommendations for local attractions and restaurants, as these were identified as the most desired smart technology services by consumers.

ii. Design strategies to increase consumer trust in smart technology, such as providing clear information about data privacy and security, offering transparency in how data is used, and implementing measures to protect guest data.

iii. Train hotel staff to assist guests in using smart technology services, and offer options for guests who prefer to interact with staff directly.

iv. Implement measures to ensure that smart technology services are accessible to all guests, including those with disabilities.

v. Conduct regular evaluations of smart technology services to ensure that they are meeting guest needs and expectations, and make adjustments as needed.

vi. Collaborate with technology vendors and industry associations to stay up-to-date with the latest smart technology trends and innovations.

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By following these recommendations, hotel managers and policymakers can successfully implement smart technology services in a way that meets the needs and preferences of their guests, while also increasing operational efficiency and enhancing the guest experience

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