The Impact of Service Quality, Digital Innovation, and Loyalty Programs on Customer Satisfaction and Loyalty in Luxury Hotels

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Abstract

This study seeks to investigate customer satisfaction and loyalty in luxury hotels in the five northern regions of Ghana. The primary objectives are to assess the impact of service quality on customer satisfaction, evaluate the role of digital technology and innovation in enhancing customer satisfaction, and examine the effectiveness of loyalty programs in fostering customer satisfaction and loyalty. Employing a quantitative research approach, the study utilized a survey design with a sample size of 121 respondents. The analysis revealed several key findings. Firstly, there is a significant positive relationship between service quality and customer satisfaction, emphasizing the necessity for luxury hotels to prioritize aspects such as reliability, responsiveness, assurance, empathy, and tangibles. Secondly, the study highlights the substantial impact of digital technology and innovation on customer satisfaction, indicating that integrating advanced technological solutions and innovative practices into hotel operations is crucial. Lastly, the positive influence of loyalty programs on customer satisfaction confirms their effectiveness in fostering commitment. These findings underscore the strategic importance for luxury hotels to invest in high-quality service, digital transformation, and robust loyalty programs to enhance customer satisfaction and build long-term loyalty.

Keywords: *Customer Satisfaction, Service Quality, Digital Technology, Innovation, Loyalty Programs, Luxury Hotels*

1.0 BACKGROUND OF THE STUDY

The subject of customer satisfaction and loyalty has emerged as a prominent focus in marketing today. In the past 15 years, a significant amount of marketing research has been focused on the identification, description, and analysis of various subjects. Some notable studies include those conducted by (Jahmani et al., 2020; Lo and Yeung, 2020; Shammout, 2020). The brand benefits greatly from a high level of consumer satisfaction, including increased consumer loyalty, improved brand reputation, reduced price sensitivity, positive word of mouth, and decreased tendency to switch to other brands (Le et al., 2021). Consumer satisfaction is widely considered one of the strong indicators, if not the strongest, of a firm's ability to generate profit (Çetinsöz, 2019; Wong, 2021).

Lee and Park (2019) contended that customer satisfaction does not guarantee customer loyalty. Ji and Prentice (2021) observed that customers who claimed to be "satisfied" or "very satisfied" actually had a high likelihood of defecting, ranging from 60 to 80% in most industries. Critics of exclusively relying on consumer satisfaction surveys, such as Prentice et al. (2020) have advocated for a deliberate shift in thinking, moving away from focusing on satisfaction and towards prioritizing loyalty as a strategic objective in business (Susanti,

2019). According to Paulose and Shakeel, (2022), the shift seemed to be a beneficial change in strategy for most companies because they recognized the financial advantage of having a loyal customer base (p.33). Hence, it was proposed that individuals responsible for assessing customer satisfaction should not conclude their efforts at that point (Adirestuty, 2019). The decision to assess loyalty is motivated by a need to gain a deeper comprehension of retention, a constituent of loyalty, which has a direct correlation with a company's profitability (Han et al., 2019). Brand loyalty can offer significant advantages for both consumers and companies. For consumers, a brand that inspires loyalty can serve as an indicator of meeting or exceeding their expectations. Consumers are more inclined to purchase a brand when they receive a familiar and positive signal from it, as they believe that the brand will meet their expectations and feel more at ease in doing so.

The primary source of comfort would be derived from the brand's established credibility, which is based on previous experiences. Customer loyalty in companies improves brand equity by reducing susceptibility to competitive marketing efforts, boosting profit margins, enhancing the effectiveness of marketing communication, and potentially creating additional opportunities for brand licensing or extension (Ramkissoon et al., 2020). According to a study conducted by Shin and Jeong, (2022), a 5% increase in customer loyalty can lead to a significant boost in a company's profitability, ranging from 40% to 95%. Additionally, a 1% increase in customer loyalty is equivalent to a 10% reduction in costs. In addition, Shin et al., (2021) asserted that brand loyalty is a highly coveted goal for marketers. In order to effectively manage customer satisfaction and loyalty, it is essential to identify the factors that precede and influence these concepts. Multiple scholars have proposed that an explicit image has the potential to cultivate greater consumer loyalty (Ofosu-Boateng and Acquaye, 2020).

Empirical evidence has substantiated the fact that images do indeed have an impact on satisfaction. This impact, in turn, leads to loyalty in various industries, as demonstrated by studies conducted by (Wai Lai, 2019). Nevertheless, further validation is needed to determine the precise impact of image on satisfaction, as marketing literature has presented conflicting findings (Buehring and O'Mahony, 2019). Price is a significant determinant of consumer satisfaction, as highlighted by Matsuoka (2022), although it has not been extensively examined in prior research. Liu et al. (2021) proposed that the pricing decision directly affects consumer satisfaction. Additionally, they highlighted the absence of literature investigating the potential impact of a consumer's price decision on their level of satisfaction. Pham et al. (2020) also noted that previous consumer satisfaction studies often overlooked the impacts of product quality and consumers' perceived price. Additionally, up to this point, there has not been a simultaneous investigation into the interrelationships between perceived quality, brand image, price fairness, satisfaction, and loyalty.

2.0 PROBLEM STATEMENT

Customer satisfaction and loyalty are paramount for the success of luxury hotels. Despite significant investments in service quality, personalized experiences, brand image, and digital technology, many luxurious hotels struggle to maintain high levels of customer satisfaction and loyalty. One of the primary issues facing luxury hotels is the inconsistency in service quality. Despite the use of models like SERVQUAL to guide service delivery, many hotels fail to consistently meet the high standards expected by their guests (Huy et al., 2019). Variability

in staff performance, lack of proper training, and discrepancies between promised and delivered services contribute to dissatisfaction.

While personalized experiences are a cornerstone of luxury hospitality, delivering them effectively remains a challenge. Hotels often struggle with accurately capturing and utilizing guest preferences to tailor services and amenities (Alauddin et al., 2019). Inadequate data collection methods and lack of staff training on personalization techniques hinder the ability to provide truly bespoke experiences. Maintaining a strong brand image and reputation is crucial for luxury hotels, yet many struggle with consistency. Fluctuations in service quality, negative online reviews, and high-profile service failures can tarnish a hotel's reputation (Peng and Chen, 2019). Managing brand image requires continuous effort and strategic communication, which many hotels fail to sustain.

The integration of digital technology in enhancing guest experiences is a significant area of concern. While technologies like mobile apps and smart room controls offer convenience, their implementation is often flawed (Peng and Chen, 2019). Technical glitches, user interface issues, and lack of staff training on digital tools can lead to frustration rather than satisfaction. Luxury hotels invest heavily in loyalty programs, yet their effectiveness in fostering genuine loyalty is questionable. Many programs fail to offer sufficiently unique or valuable rewards to entice repeat business (Wibisono et al., 2022). Additionally, the complexity and lack of personalization in loyalty programs can deter guest participation.

Maintaining consistent quality and reliability across all service interactions is challenging for luxury hotels. Guests expect uniform excellence, but disparities in service delivery across different departments or properties can lead to dissatisfaction (Vo et al., 2020). Ensuring consistency requires robust operational standards and continuous monitoring. Building emotional connections and trust with guests is essential for fostering loyalty, yet many luxury hotels fall short in this area. Inauthentic interactions, lack of genuine care, and failure to resolve issues empathetically can erode trust (Vo et al., 2022). Emotional branding requires a deep understanding of guest needs and a commitment to exceeding their expectations.

In the digital age, online reviews significantly impact customer perceptions and loyalty. Luxury hotels often struggle with managing their online reputation effectively (Padma and Ahn, 2020). Responding to negative reviews, addressing guest complaints, and maintaining a positive online presence are critical but challenging tasks that many hotels fail to execute well. Luxury hotel guests typically have very high expectations, making it challenging to consistently meet or exceed them. Discrepancies between marketing promises and actual experiences can lead to significant dissatisfaction (Alketbi et al., 2020). Clear and realistic communication about services and experiences is crucial but often lacking.

The luxury hotel industry is highly competitive, with new entrants and changing market dynamics constantly raising the bar. Staying ahead of competitors requires continuous innovation and adaptation, which can be resource-intensive and difficult to sustain (Kuhzady and Ghasemi, 2019). Many luxurious hotels struggle to keep up with evolving market trends and customer preferences. While personalization is key to guest satisfaction, balancing it with privacy concerns is a significant challenge. Guests expect personalized experiences without feeling that their privacy is being invaded (Lee and Kim, 2020). Responsible data collection and usage practices are essential but often inadequately implemented. Therefore, this study seeks to investigate customer satisfaction and loyalty in luxury hotels in the five northern regions of Ghana.

3.0 RESEARCH OBJECTIVES

1. To assess the impact of service quality on customer satisfaction in luxury hotels.

2. To evaluate the role of digital technology and innovation in enhancing customer satisfaction in luxury hotels.

3. To examine the effectiveness of loyalty programs in fostering customer satisfaction and loyalty in luxury hotels.

3.1 Research Questions

1. How does service quality impact customer satisfaction in luxury hotels?

2. What is the role of digital technology and innovation in enhancing customer satisfaction in luxury hotels?

3. How effective are loyalty programs in fostering customer satisfaction and loyalty in luxury hotels?

4.0 LITERATURE REVIEW

Concept of Service Quality

Service quality is a multifaceted concept that has been defined and measured in various ways by scholars over the years. A common theme across these definitions is the comparison between customer expectations and perceptions. Alauddin et al. (2019) introduced the SERVQUAL model, which posits that service quality is determined by the gap between expected service and perceived service. Similarly, Peng and Chen (2019) highlighted the significance of this comparison, noting that service quality arises from customers' assessments of what they expect versus what they actually experience. The idea of service quality as an attitude formed over time is emphasized by Wibisono et al. (2022), who describes it as a long-term overall evaluation of a firm's performance. Vo et al. (2020) also support this notion, defining service quality as the consumer's overall impression of the relative inferiority or superiority of the organization and its services. This suggests that service quality is not just about individual transactions but also about the cumulative experiences of the customer.

Vo et al. (2022) introduced a multidimensional view of service quality, proposing that it consists of physical quality, interactive quality, and corporate quality. This perspective is echoed by Padma and Ahn (2020), who include dimensions like performance, reliability, and aesthetics in his definition of quality. These definitions underscore that service quality encompasses various aspects of the service delivery process, including the physical environment, the interactions between customers and service providers, and the overall image of the company.

The importance of consistency in delivering service quality is highlighted by Alketbi et al. (2020), who emphasize the ability of service providers to meet or exceed customer expectations consistently. Kuhzady and Ghasemi (2019) further add that service quality is a form of attitude representing a long-run overall evaluation, which aligns with the notion that consistent high-quality service leads to positive customer attitudes. This focus on consistency is crucial because variability in service delivery can lead to customer dissatisfaction, as noted by Lee and Kim, 2020. Several scholars point to the role of expectations in shaping perceptions of service quality. Li (2020) defines service quality as a measure of how well the

service level delivered matches customer expectations, while Wu and Gao (2019) assert that service quality is the degree to which a service meets these expectations. Jacksen et al. (2021) describe service quality as the difference between the customer's expectations for service performance prior to the service encounter and their perceptions of the service received, emphasizing the dynamic nature of customer expectations.

The relationship between service quality and customer satisfaction is another key area explored by researchers. Gong et al. (2020) define service quality as the customer's overall assessment of a service based on a comparison of expectations with perceptions, suggesting that high service quality leads to greater customer satisfaction. Chang et al. (2023) also argue that service quality is foundational to customer satisfaction and loyalty, indicating that consistent high-quality service is essential for building long-term customer relationships. Service quality is a complex construct that involves multiple dimensions and the interplay between customer expectations and perceptions. It is viewed both as a long-term attitude and as a measure of specific service encounters. Scholars agree on the importance of consistency, the multidimensionality of service quality, and its critical role in achieving customer satisfaction and loyalty. These diverse definitions and perspectives underscore the multifaceted nature of service quality and the necessity for service providers to continuously strive to meet and exceed customer expectations to maintain a competitive edge.

Technology and Innovation

The concepts of technology and innovation have been extensively studied and defined by various scholars, each offering a unique perspective on their roles and impacts. A recurring theme in these definitions is the idea that technology and innovation drive progress and competitive advantage within organizations. Cao et al. (2021) define innovation as the process of carrying out new combinations of resources, leading to new products, processes, or markets. This perspective underscores the transformative potential of innovation in creating new value and opportunities. Afuah (2020) emphasizes the importance of systematic innovation, describing it as a purposeful and organized search for changes and the systematic analysis of the opportunities such changes might offer. This definition highlights the strategic aspect of innovation, where organizations actively seek and exploit new ideas and technologies to gain a competitive edge. Similarly, Sinha et al. (2020) introduce the concept of disruptive innovation, which refers to innovations that create new markets by discovering new categories of customers, often leading to the displacement of established products and services.

Urbinati et al. (2020) offer a broad definition of innovation, describing it as an idea, practice, or object perceived as new by an individual or other unit of adoption. This definition emphasizes the subjective nature of innovation, where the novelty and adoption of an idea or technology depend on the perceptions of the users. Lin and Zhu (2019) build on this by discussing the diffusion of innovations, focusing on the process through which an innovation is communicated over time among the members of a social system. The role of technology in innovation is also a critical aspect explored by scholars. Lv et al. (2021) defines technology as the practical application of knowledge to achieve particular goals, particularly in the context of economic production. This definition underscores the utilitarian aspect of technology, where its primary value lies in its ability to solve problems and improve efficiency. Galanakis et al. (2021) further elaborate on the impact of technology, particularly information technology, in driving productivity and business performance, highlighting the synergistic relationship between technology adoption and innovation.

Hall and Williams (2019) describe innovation as a process that involves the generation, development, and implementation of new ideas or behaviors. They emphasize that innovation encompasses a wide range of activities, from incremental improvements to radical changes, and can occur in products, processes, and organizational structures. This comprehensive view aligns with the definition provided by Radicic and Petković (2023), which considers innovation as the implementation of a new or significantly improved product, process, marketing method, or organizational method in business practices, workplace organization, or external relations. The relationship between technology, innovation, and competitive advantage is a recurring theme. Adamides and Karacapilidis (2020) argue that technological advancements can be a source of competitive advantage if they lead to superior product performance or cost reduction. This view is supported by Ganda (2019), who emphasizes the importance of complementary assets and the ability to capture value from innovation through effective management and strategic alignment. Appio et al. (2019) also highlight the role of technology in creating sustainable competitive advantages through the development of unique capabilities that are valuable, rare, and difficult to imitate.

In the context of service industries, Benitez et al., (2020) discuss the role of technology in enhancing service delivery and customer satisfaction. They argue that technology-mediated services can provide significant improvements in efficiency, convenience, and personalization, leading to better customer experiences. This view is echoed by Alzoubi et al. (2022), Sun et al. (2021), who highlight the shift towards a service-dominant logic, where technology and innovation are central to creating value through enhanced service interactions.

In summary, technology and innovation are closely intertwined concepts that drive progress, competitive advantage, and value creation. Scholars emphasize the strategic, utilitarian, and transformative aspects of innovation, highlighting its role in creating new products, processes, and markets. Technology is viewed as a critical enabler of innovation, enhancing efficiency, productivity, and customer satisfaction. The definitions provided by various scholars offer a comprehensive understanding of these concepts, underscoring their importance in both theoretical and practical contexts.

Loyalty Programmes

Loyalty programs have been extensively researched and defined by numerous scholars, each offering insights into their nature, benefits, and implementation. A common theme across these definitions is the role of loyalty programs in fostering long-term customer relationships and enhancing customer retention. According to Koo et al. (2020), loyalty programs are structured marketing efforts that reward and therefore encourage, loyal buying behavior. This definition underscores the goal of loyalty programs to incentivize repeat purchases and strengthen customer loyalty.

Alzoubi et al. (2022) define loyalty programs as a marketing strategy that offers rewards to customers who frequently make purchases. The emphasis here is on the strategic use of rewards to build customer loyalty. Aluri et al. (2019) further elaborate that loyalty programs are designed to enhance the frequency of purchase by offering customers incentives such as points, discounts, or other benefits. These incentives create a perceived value for the customer, motivating them to continue patronizing the business.

Boukis (2020) highlights the role of loyalty programs in creating switching barriers, which make it more difficult or less desirable for customers to switch to competitors. By offering

exclusive rewards or benefits, loyalty programs can increase customer retention by making the cost of switching higher. This idea is supported by Rejeb et al. (2020), Stein and Ramaseshan (2020), who note that loyalty programs can effectively lock in customers by providing benefits that are accumulated over time, thus incentivizing continued patronage.

Thomas et al. (2019) emphasize the importance of the emotional and relational benefits of loyalty programs. They argue that beyond financial rewards, loyalty programs can create emotional bonds between customers and the brand, leading to higher levels of customer satisfaction and loyalty. This relational aspect is crucial, as it fosters a deeper connection with customers, encouraging them to remain loyal even in the face of competitive offers.

Alshurideh (2019) provides a comprehensive definition, stating that loyalty programs are marketing tools used to build a long-term relationship between customers and companies by providing economic, social, and psychological benefits. This definition highlights the multi-faceted nature of loyalty programs, which aim to deliver value on multiple levels to enhance customer loyalty. By addressing various customer needs and preferences, loyalty programs can create a more personalized and engaging experience.

Nguyen-Phuoc et al. (2020) discuss the strategic importance of loyalty programs in gaining competitive advantage. He argues that well-designed loyalty programs can differentiate a brand from its competitors by offering unique benefits and creating a sense of exclusivity. This competitive edge can attract new customers while retaining existing ones, thereby boosting overall business performance. Hwang et al. (2019) further support this view, noting that loyalty programs can serve as a key differentiator in crowded markets, where customers have numerous options.

Gauld (2024) explores the effectiveness of loyalty programs in enhancing customer retention and increasing customer lifetime value. They argue that loyalty programs can lead to higher customer retention rates by increasing customer satisfaction and reducing churn. By fostering long-term relationships, loyalty programs can maximize the lifetime value of each customer, contributing to sustainable business growth.

In summary, loyalty programs are structured marketing efforts designed to reward and encourage repeat purchasing behavior. They offer a range of benefits, including economic rewards, emotional bonds, and switching barriers, which collectively enhance customer loyalty and retention. Scholars emphasize the strategic importance of loyalty programs in creating competitive advantage and increasing customer lifetime value. By delivering personalized and engaging experiences, loyalty programs can foster long-term relationships with customers, contributing to overall business success.

Customer Satisfaction

Customer satisfaction has been a focal point of marketing and management research for decades, with numerous scholars offering varied definitions and interpretations. A common theme across these definitions is that customer satisfaction arises from the comparison between customer expectations and their actual experiences of a product or service. Almohaimmeed (2019) defines customer satisfaction as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with a consumer's prior feelings about the consumption experience." This definition underscores the emotional and cognitive dimensions of satisfaction.

El-Adly (2019) defines customer satisfaction as a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) to their expectations. This comparison-based approach highlights the importance of meeting or exceeding customer expectations to achieve satisfaction. Similarly, Ardani et al. (2019) define customer satisfaction as the customer's evaluation of a product or service based on whether that product or service has met their needs and expectations.

Gajewska et al. (2020) introduce the American Customer Satisfaction Index (ACSI) as a measure of customer satisfaction, defining it as a cumulative evaluation based on the total purchase and consumption experience with a good or service over time. This definition emphasizes the long-term nature of customer satisfaction, suggesting that it is shaped by a series of interactions and experiences rather than a single transaction. This cumulative perspective is also supported by Slack et al. (2020), who describe customer satisfaction as the customer's overall assessment of a product or service based on a collection of purchase and consumption experiences. Syafarudin (2021) offers a comprehensive definition, stating that customer satisfaction is "a summary affective response of varying intensity with a time-specific point of determination and limited duration, directed toward focal aspects of product acquisition and/or consumption." This definition highlights the temporal and affective aspects of satisfaction, suggesting that it is a dynamic and context-specific construct.

Shokouhyar et al. (2020) explore the multidimensional nature of customer satisfaction, identifying cognitive, affective, and conative components. They argue that customer satisfaction involves not only evaluative judgments but also emotional responses and behavioral intentions. This multidimensional approach is echoed by Spreng and Pei et al. (2020), who emphasize the role of expectation disconfirmation, perceived performance, and emotions in shaping customer satisfaction.

The relationship between customer satisfaction and service quality is another key area explored by researchers. Zouari and Abdelhedi (2021) suggest that service quality is a precursor to customer satisfaction, with higher service quality leading to greater satisfaction. They argue that service quality affects customer satisfaction by affecting customers' perceptions of value and their overall evaluations of the service experience. This view is supported by Hayati et al. (2020), who found that perceived service quality significantly impacts customer satisfaction.

Kusumawati and Rahayu (2020) discuss the economic implications of customer satisfaction, arguing that higher satisfaction leads to increased customer loyalty, reduced churn, and improved financial performance. They posit that satisfied customers are more likely to repurchase, spread positive word-of-mouth, and become less sensitive to price changes. This economic perspective underscores the strategic importance of customer satisfaction for long-term business success.

In the context of retail, Irawan et al. (2023) define customer satisfaction as an overall evaluation based on the total purchase and consumption experience with a good or service over time. They emphasize that satisfaction is influenced by various factors, including product quality, service quality, price, and the shopping environment. This comprehensive view aligns with the definition provided by (Esteves et al., 2023; Haming et al., (2019), who suggest that customer satisfaction is a holistic evaluation that encompasses all aspects of the customer experience.

Empirical Review

Customer satisfaction is a multifaceted concept extensively studied across various fields, with numerous scholars highlighting its determinants, consequences, and underlying mechanisms. At its core, customer satisfaction arises from a comparison between customer expectations and their actual experiences with a product or service. Shin et al. (2021) emphasize that this comparison-based approach is crucial, with satisfaction stemming from how well a product or service meets or exceeds customer expectations. This emotional and cognitive evaluation forms the basis of customer satisfaction and is critical for understanding customer behavior.

Service quality is consistently identified as a significant determinant of customer satisfaction. Paulose and Shakeel (2022) outlined key dimensions such as reliability, responsiveness, assurance, empathy, and tangibles, which directly influence satisfaction levels. Ji and Prentice (2021) further validated that perceived service quality positively impacts customer satisfaction and subsequent behavioral intentions. The link between service quality and customer satisfaction underscores the importance of consistently delivering high-quality service to enhance customer experiences and satisfaction.

Customer satisfaction is not only a result of service quality but also a predictor of customer loyalty and retention. Lee and Park (2019) found that high levels of satisfaction lead to increased loyalty, reduced churn, and improved financial performance. Satisfied customers are more likely to repurchase, recommend the company to others, and exhibit reduced sensitivity to price changes, as noted by Ji and Prentice (2021). These findings highlight the strategic importance of focusing on customer satisfaction to build and maintain a loyal customer base.

Several scholars have explored the multidimensional nature of customer satisfaction, incorporating cognitive, affective, and conative components. Paulose and Shakeel (2022) emphasize that satisfaction involves evaluative judgments, emotional responses, and behavioral intentions. This multidimensional approach recognizes that satisfaction is a dynamic and complex construct shaped by various factors, including disconfirmation of expectations, perceived performance, and emotional responses, as highlighted by Jahmani et al., 2020; Lo and Yeung, 2020; Shammout, 2020.

The relationship between customer satisfaction and perceived value is another critical area of research. Prentice et al. (2020) demonstrated that customer satisfaction is positively related to perceived value, indicating that customers who perceive greater value in a product or service are more likely to be satisfied. Ji and Prentice (2021) further underscored the economic benefits of customer satisfaction, noting that it leads to higher profitability through repeat business and lower customer acquisition costs. These findings emphasize the importance of delivering value to customers as a means of enhancing satisfaction and driving business success.

Emotional and relational benefits also play a significant role in customer satisfaction. Lee and Park (2019) found that loyalty programs enhance satisfaction by providing economic, social, and psychological benefits. Ji and Prentice (2021) similarly highlighted the importance of emotional responses in determining satisfaction levels. By fostering emotional bonds and providing personalized experiences, companies can create deeper connections with customers, leading to higher satisfaction and loyalty.

Finally, the cumulative nature of customer satisfaction is emphasized by Shin et al. (2021), who argue that satisfaction is shaped by a series of interactions and experiences over time. This cumulative perspective suggests that businesses must consistently deliver high-quality

experiences across all customer touchpoints to build long-term satisfaction and loyalty. By focusing on the various dimensions and determinants of customer satisfaction, companies can develop strategies that enhance customer experiences, foster loyalty, and drive sustainable business growth.

Conceptual Framework

The conceptual framework illustrates the critical elements that influence customer satisfaction in modern business environments. It emphasizes three major factors: service quality, digital technology and innovation, and loyalty programs. Each of these components plays a significant role in shaping customer experiences and ultimately, their level of satisfaction with a brand or service.

Firstly, service quality is a fundamental driver of customer satisfaction. Service quality encompasses various dimensions such as reliability, responsiveness, assurance, empathy, and the tangibility of the services provided. When customers perceive high service quality, they are more likely to have positive experiences with a company, leading to greater satisfaction. Organizations that prioritize customer needs, deliver services consistently, and provide quick and effective solutions to problems tend to create loyal and satisfied customers. In contrast, poor service quality can lead to dissatisfaction, negative reviews, and a loss of clientele.

Secondly, digital technology and innovation have become essential tools for businesses seeking to enhance customer satisfaction. With the advent of new technologies, companies can offer more efficient, personalized, and accessible services. The use of digital platforms such as mobile apps, artificial intelligence (AI) chatbots, and online self-service options has transformed the way businesses interact with customers. These innovations reduce friction in the customer journey by providing faster services, improving communication, and allowing customers to access products or services from anywhere. Furthermore, technological advancements enable businesses to gather data about customer preferences and behavior, which can be leveraged to tailor services to meet individual needs, ultimately driving higher levels of satisfaction.

Lastly, loyalty programs are a powerful tool for fostering long-term relationships with customers. They reward customers for repeat business, encouraging them to continue using a company's products or services. Common examples of loyalty programs include point systems, exclusive discounts, and special offers for frequent customers. These programs not only increase customer retention but also contribute to higher satisfaction levels as customers feel valued and appreciated. The emotional connection created through loyalty programs often leads to a deeper sense of loyalty and advocacy, where customers become brand ambassadors.

In conclusion, the framework underscores the interconnected nature of service quality, digital technology and innovation, and loyalty programs on influencing customer satisfaction. By focusing on these three areas, businesses can create a holistic approach to improving customer experiences. High-quality service delivery, innovative technological solutions, and rewarding loyalty programs together drive customer satisfaction, resulting in stronger customer relationships, higher retention rates, and overall business success.
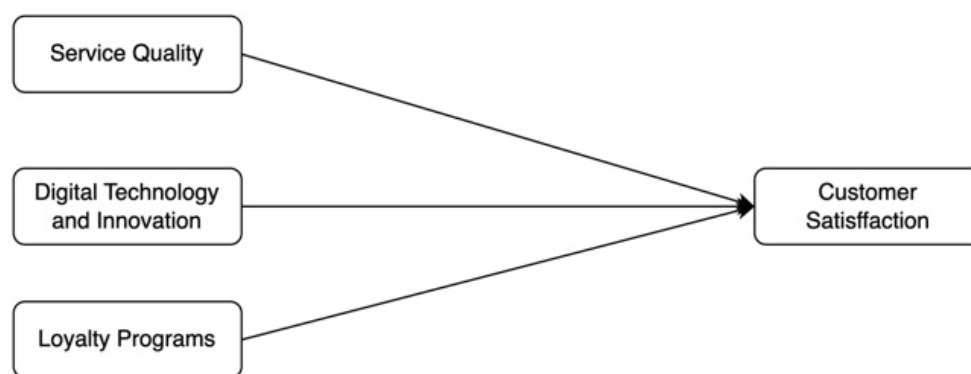
Figure 1. Conceptual Framework.

Approach and Methodology

The quantitative research approach focuses on the systematic empirical investigation of observable phenomena through statistical, mathematical, or computational techniques. This approach was particularly well-suited for studies aiming to quantify relationships, patterns, and trends among variables. In the context of this study, a quantitative approach allowed for the precise measurement of variables. By using structured instruments like surveys, the research collected data that was both quantifiable and amenable to rigorous statistical analysis. This approach was beneficial in providing objective, reliable, and generalizable findings that informed evidence-based strategies for enhancing customer loyalty through social media engagement in the hospitality industry. Validation and statistical analysis of study variables are fundamental to quantitative studies, which seek to test hypotheses (Miller, 1978). It involves a methodical and scientific strategy for measuring information (Bechhofer and Paterson, 2012; Hakim, 2012). Quantitative data is a representation of a population in the form of numerical variables. As stated by many authors (Asenahabi Bostley, 2019; Sobh and Perry, 2006), quantitative research makes use of statistical methods to investigate interrelationships among a number of factors.

The research design for this study was a survey, a widely used method in quantitative research for collecting data from a large number of respondents. Surveys were particularly effective for gathering self-reported data on perceptions, attitudes, and behaviors. In this study, the survey design allowed for the systematic collection of data. The survey method was chosen for its ability to reach a broad audience, ensuring a diverse and representative sample that enhanced the generalizability of the findings. The use of Likert scale questions facilitated the measurement of the intensity of respondents' attitudes and perceptions. This design ensured that data could be quantitatively analyzed to identify patterns and relationships between variables. Additionally, surveys were distributed through various channels, such as online platforms, emails, or in-person, making it a flexible and cost-effective method for data collection. The population is large enough to allow large volumes of data to be collected in an economical manner, and this is the benefit of the survey strategy (Caruth, 2013; Owens, 2002). In addition, surveys can be longitudinal, where data is collected from various times, or cross-sectional, where data is collected once, and since the data for this analysis was gathered within such a small, discrete timeline, surveys were therefore appropriate (Drury et al., 2015; Gorard, 2017; Kazdin, 1952). According to Malhotra and Birks (2007), surveys are effective for collecting data on attitudes and behaviors, generalizing findings to a target population,

and verifying hypotheses (Nasco et al., 2008).

The population of the study comprised customers of luxury hotels located in the five northern regions, specifically focusing on the Northern, Upper East, Upper West, North East, and Savannah regions in Ghana. These regions were selected due to their growing tourism and hospitality industries, which provide a relevant context for assessing customer satisfaction and loyalty in luxury hotels. The target population includes both domestic and international guests who have experienced the services of luxury hotels within these areas.

Given that there are approximately 9 luxurious hotels, a sample size calculator or statistical formulas were used to determine an adequate sample size. Assuming a 95% confidence level and a 5% margin of error, the required sample size was approximately 121 respondents. This calculation ensures that the sample is large enough to provide reliable and valid results while being manageable for data collection purposes. By targeting at least 121 hotel managers and social media staff, the study aimed to achieve a representative sample that could offer valuable insights into the relationship between social media engagement and customer loyalty in the hospitality sector in the Tamale Metropolis.

To conduct the study, primary data were used. Only a questionnaire was utilized as the technique for gathering primary data. A structured survey with closed-ended questions was created.

The questionnaire was pre-tested to ensure clarity and comprehensibility. Once finalized, it was administered to the participants. The completed questionnaires were collected, recorded, and used for data analysis. Throughout the data collection process, ethical considerations were upheld, including obtaining informed consent, ensuring privacy, and maintaining confidentiality. Data analysis was performed using Partial Least Squares Structural Equation Modeling (PLS-SEM). This method was chosen for its ability to handle complex models with multiple constructs and indicators. PLS-SEM was used to assess the relationships between service quality, customer satisfaction, and loyalty, providing robust and reliable results for the study.

5.0 RESULTS AND DISCUSSIONS

Demographic Information

Table 1. Demographic Information

Background Characteristics	Categories	Frequency	Percentage (%)
Gender of Respondent	Male	78	59.4
	Female	53	40.6
Age Group of Respondent	Less than 30 years	5	4.2
	31 – 40 years	46	35.1
	41 – 50 years	50	37.8
	51 years and above	30	22.9
Frequency of Stay in Luxury Hotels	Once a year	37	38.8
	2-3 times a year	46	35.1
	More than 3 times a year	27	20.3

Table 1.1 presents the demographic information of the respondents. The gender distribution shows that 59.4% of the respondents were male, while 40.6% were female. Regarding age groups, the majority of respondents (37.8%) were between 41 and 50 years old, followed by those aged 31 to 40 years (35.1%). A smaller portion of the respondents (22.9%) were 51 years and above, and the least represented age group was those less than 30 years (4.2%). In terms of the frequency of stays in luxury hotels, 38.8% of the respondents stayed once a year, while 35.1% stayed 2-3 times a year. A notable 20.3% of respondents stayed more than three times a year. These demographics provide a comprehensive overview of the sample population, illustrating a diverse range of ages and stay frequencies, which is essential for understanding the varying perspectives on service quality, digital technology, and loyalty programs in luxury hotels.

Validity and Reliability

Table 2. Reliability and Validity

	Customer Satisfaction	Digital Tech. and Innovation	Loyalty Programmes	Service Quality
CM1	0.908			
CM2	0.921			
CM3	0.905			
TI1		0.783		
TI2		0.795		
TI3		0.841		
TI4		0.809		
TI5		0.841		
L1			0.863	
L2			0.903	
L3			0.889	
SQ1				0.764
SQ2				0.848
SQ3				0.847
SQ4				0.801

Table 3. Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Customer Satisfaction	0.898	0.898	0.936	0.831
Digital Tech. and Innovation	0.873	0.883	0.908	0.663
Loyalty Programmes	0.863	0.878	0.916	0.784
Service Quality	0.833	0.84	0.888	0.666

Table 4. Model Fit

	Saturated model	Estimated model
SRMR	0.062	0.062
d_ULS	0.455	0.455
d_G	0.214	0.214
Chi-square	453.299	453.299
NFI	0.85	0.85

Table 2 highlights the reliability and validity of the constructs used in the study, focusing on customer satisfaction, digital technology and innovation, loyalty programs, and service quality. The individual items under each construct exhibit high factor loadings each exceeding the recommended threshold of 0.70, indicating strong internal consistency. Specifically, the items for customer satisfaction (CM1, CM2, CM3) show loadings ranging from 0.905 to 0.921, reflecting robust reliability. Similarly, the digital technology and innovation construct items (TI1 to TI5) have loadings between 0.783 and 0.841, while loyalty program items (L1 to L3) range from 0.863 to 0.903, and service quality items (SQ1 to SQ4) range from 0.764 to 0.848. These results confirm that the measurement items are valid indicators of their respective constructs.

Table 3 provides further insights into the reliability and validity of the constructs through various metrics. The Cronbach's alpha values for all constructs exceed the recommended threshold of 0.70, with customer satisfaction at 0.898, digital technology and innovation at 0.873, loyalty programs at 0.863, and service quality at 0.833. These values indicate high internal consistency for each construct. The composite reliability (rho_a and rho_c) values also exceed the 0.70 benchmark, further validating the reliability of the constructs. Additionally, the average variance extracted (AVE) values for all constructs are above 0.50, with customer satisfaction at 0.831, digital technology and innovation at 0.663, loyalty programs at 0.784, and service quality at 0.666. These AVE values confirm that a substantial amount of variance is captured by the constructs relative to the measurement error.

Table 4 presents the model fit indices for both the saturated and estimated models, demonstrating a good fit. The Standardized Root Mean Square Residual (SRMR) value of 0.062 for both models fall below the 0.08 threshold, confirming acceptable fit levels. The d_ULS and d_G values, at 0.455 and 0.214 respectively, further support the model's adequacy. The Chi-square value of 453.299, although significant, is expected given the sample size, and the Normed Fit Index (NFI) of 0.85 suggests a satisfactory fit. These indices collectively indicate that the model is a good representation of the data and that the constructs used in the study are both reliable and valid.
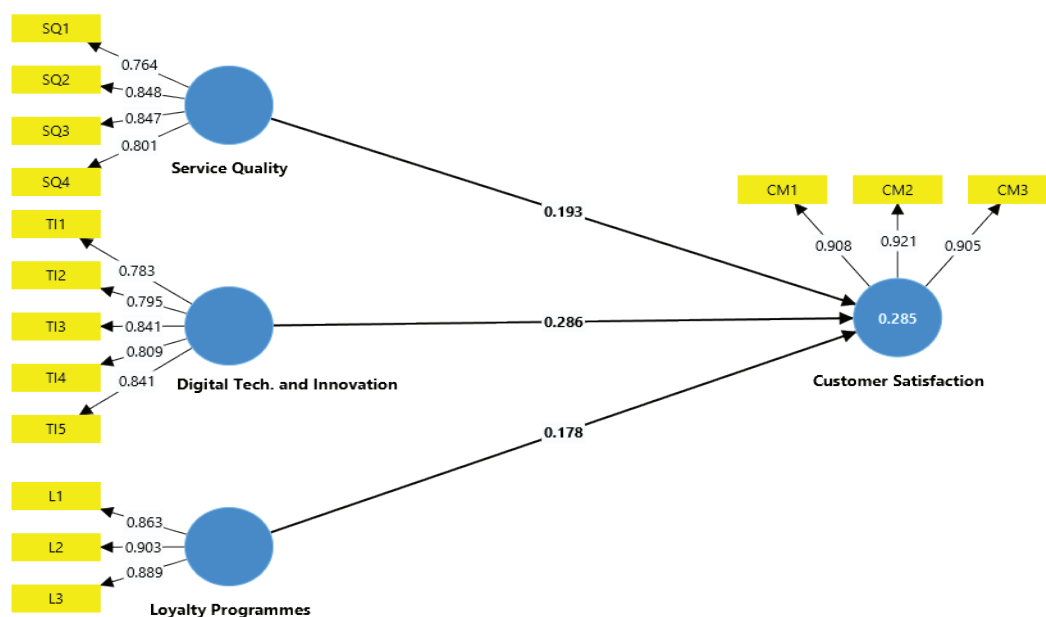
Figure 1 Tested Model

Effects Service Quality on Customer Satisfaction

Table 5. Direct Paths

	B	STDEV	T statistics	P values
Digital Tech. and Innovation -> Customer Satisfaction	0.286	0.070	4.110	0.000
Loyalty Programmes -> Customer Satisfaction	0.178	0.069	2.575	0.010
Service Quality -> Customer Satisfaction	0.193	0.068	2.844	0.004

The analysis of Table 5 reveals a significant direct path from service quality to customer satisfaction, with a standardized coefficient (β) of 0.193, a standard deviation (STDEV) of 0.068, a t-statistic of 2.844, and a p-value of 0.004. This statistically significant relationship (p < 0.05) indicates that service quality positively influences customer satisfaction in the context of luxury hotels. The strength of this relationship, although modest, underscores the critical role that high-quality service plays in enhancing customer satisfaction levels.

The empirical review supports these findings by highlighting the multifaceted nature of customer satisfaction and its determinants. Oliver (1980) and Zeithaml, Bitner, and Gremler (2006) describe customer satisfaction as the result of comparing customer expectations with their actual experiences. Service quality, as detailed by Parasuraman, Zeithaml, and Berry (1988), includes dimensions such as reliability, responsiveness, assurance, empathy, and tangibles, all of which are pivotal in shaping customer satisfaction. Cronin and Taylor (1992) validate that perceived service quality significantly impacts customer satisfaction and subsequent behavioral intentions, aligning with the direct path results in Table 5.

Furthermore, the literature emphasizes the broader implications of customer satisfaction beyond immediate service quality. Fornell (1992) and Anderson and Sullivan (1993) establish that high levels of satisfaction lead to increased customer loyalty, reduced churn, and better financial performance. This relationship underscores the strategic importance of focusing on service quality to enhance customer satisfaction, as satisfied customers are more likely to exhibit loyalty behaviors, including repeat purchases and positive word-of-

mouth recommendations. Homburg, Koschate, and Hoyer (2006) further note that satisfied customers are less sensitive to price changes, highlighting the long-term business benefits of high customer satisfaction.

Role of Digital Technology and Innovation in Enhancing Customer Satisfaction

The path coefficient (β) of 0.286, with a standard deviation (STDEV) of 0.070, and a t-statistic of 4.110 (p-value = 0.000), from Table 5 indicates a significant positive relationship between digital technology and innovation and customer satisfaction in luxury hotels. The substantial t-value and the highly significant p-value (less than 0.001) demonstrate that digital technology and innovation are crucial determinants of customer satisfaction. This finding aligns with existing literature emphasizing the importance of integrating advanced technological solutions and innovative practices to enhance customer experiences and meet or exceed customer expectations.

Empirical studies support the significance of service quality, including the technological aspects, in shaping customer satisfaction. Parasuraman, Zeithaml, and Berry (1988) highlight the dimensions of service quality such as reliability and tangibles, which are integral to the technological infrastructure of luxury hotels. Cronin and Taylor (1992) further validate that perceived service quality, influenced by technological advancements, directly impacts customer satisfaction. The current study's findings resonate with these assertions, suggesting that luxury hotels investing in cutting-edge digital technologies and innovative services can significantly enhance customer satisfaction by providing reliable, responsive, and high-quality service.

Moreover, the literature underscores the broader implications of customer satisfaction on loyalty and business performance. Fornell (1992) and Anderson and Sullivan (1993) establish that high levels of customer satisfaction foster increased loyalty, reduced churn, and better financial outcomes. The positive relationship between digital technology and customer satisfaction observed in this study implies that hotels leveraging digital innovations not only improve immediate customer satisfaction but also potentially build long-term loyalty and repeat business. This perspective aligns with Homburg, Koschate, and Hoyer (2006), who note that satisfied customers are more likely to repurchase and recommend the service, further reinforcing the strategic importance of adopting technological advancements in the hospitality industry to sustain business growth and competitive advantage.

Effectiveness of Loyalty Programs in Fostering Customer Satisfaction and Loyalty

Table 5 presents the direct path analysis results, showing that the relationship between loyalty programs and customer satisfaction is statistically significant, with a beta (β) coefficient of 0.178, a standard deviation (STDEV) of 0.069, and a T statistic of 2.575. The p-value of 0.010 indicates that this relationship is significant at the 0.05 level. These results suggest that loyalty programs positively influence customer satisfaction in luxury hotels, supporting the hypothesis that effective loyalty programs can enhance customer satisfaction.

The empirical literature aligns with these findings. Customer satisfaction is extensively studied and understood as a comparison between customer expectations and actual experiences (Oliver, 1980; Zeithaml, Bitner, and Gremler, 2006). The positive beta coefficient indicates that

well-structured loyalty programs meet or exceed customer expectations, thereby enhancing satisfaction. Parasuraman, Zeithaml, and Berry (1988) highlight service quality dimensions such as reliability and empathy as key to satisfaction, further corroborated by Cronin and Taylor (1992), who emphasize the positive impact of perceived service quality on satisfaction and subsequent behavioral intentions. The positive impact of loyalty programs on satisfaction is thus in line with the broader understanding that consistent and high-quality service delivery, often facilitated by loyalty programs, significantly boosts customer satisfaction.

Moreover, the significance of the relationship between loyalty programs and customer satisfaction supports the notion that satisfied customers exhibit increased loyalty, reduced churn, and better financial performance (Fornell, 1992; Anderson and Sullivan, 1993). Homburg, Koschate, and Hoyer (2006) note that satisfied customers are more likely to repurchase and recommend the company, highlighting the strategic importance of loyalty programs. The emotional and relational benefits provided by loyalty programs enhance satisfaction by offering economic, social, and psychological benefits (Gómez, Arranz, and Cillán, 2006). McColl-Kennedy and Schneider (2000) also emphasize the role of emotional responses in determining satisfaction levels, suggesting that loyalty programs that foster emotional bonds and personalized experiences can significantly enhance customer satisfaction and loyalty.

6.0 SUMMARY OF FINDINGS

The analysis of the effect of service quality on customer satisfaction reveals a significant positive relationship. The standardized coefficient indicates that improvements in service quality directly enhance customer satisfaction levels in luxury hotels. This statistically significant finding highlights the critical role high-quality service plays in meeting or exceeding customer expectations, leading to higher satisfaction levels. Although the relationship's strength is modest, it underscores the importance of consistent and reliable service delivery as a fundamental determinant of customer satisfaction in the luxury hotel industry.

The role of digital technology and innovation in enhancing customer satisfaction is also significantly positive. The path coefficient, combined with the substantial t-value and highly significant p-value, demonstrates that integrating advanced technological solutions and innovative practices is crucial for improving customer experiences. This finding aligns with existing literature that emphasizes the importance of digital transformation and innovation in meeting customer expectations and delivering superior service. The positive impact of digital technology and innovation suggests that luxury hotels investing in these areas can significantly enhance customer satisfaction.

Loyalty programs' effectiveness in fostering customer satisfaction and loyalty is evident from the analysis. The statistically significant relationship between loyalty programs and customer satisfaction supports the hypothesis that well-structured loyalty programs positively influence satisfaction levels. This finding aligns with previous research highlighting that loyalty programs offer economic, social, and psychological benefits, enhancing the overall customer experience. The positive impact of loyalty programs suggests that luxury hotels can improve customer satisfaction and foster loyalty by implementing and maintaining effective loyalty initiatives.

7.0 CONCLUSIONS

Based on the findings from the analysis, several key conclusions can be drawn regarding the determinants of customer satisfaction in luxury hotels. Firstly, the significant positive relationship between service quality and customer satisfaction underscores the critical importance of consistently delivering high-quality service. Luxury hotels must prioritize the reliability, responsiveness, assurance, empathy, and tangible aspects of service to enhance customer satisfaction levels. This aligns with the established understanding that superior service quality is fundamental to meeting and exceeding customer expectations, thereby fostering higher satisfaction.

Secondly, the substantial impact of digital technology and innovation on customer satisfaction highlights the necessity for luxury hotels to integrate advanced technological solutions and innovative practices into their operations. The significant path coefficient and highly positive relationship indicate that customers value modern, efficient, and technologically enhanced experiences. As such, luxury hotels that invest in digital transformation and innovative service delivery are more likely to meet or exceed customer expectations, leading to increased satisfaction. This emphasizes the strategic importance of adopting cutting-edge technology and continuously innovating to remain competitive and satisfy customers.

Lastly, the positive influence of loyalty programs on customer satisfaction confirms their effectiveness as a tool for fostering customer loyalty and enhancing satisfaction. The significant relationship between loyalty programs and customer satisfaction supports the notion that well-structured loyalty initiatives provide substantial benefits that enhance the overall customer experience. By offering personalized rewards, exclusive benefits, and fostering emotional connections, luxury hotels can improve customer satisfaction and build long-term loyalty. This finding highlights the strategic value of investing in and maintaining robust loyalty programs to ensure sustained customer satisfaction and loyalty.

8.0 RECOMMENDATIONS

Based on the findings and conclusions of this study, the following recommendations are made to luxury hotels seeking to enhance customer satisfaction and foster loyalty:

Prioritize Service Quality: Luxury hotels should continuously strive to improve service quality by focusing on the key dimensions of reliability, responsiveness, assurance, empathy, and tangibles. Regular training programs for staff, adopting a customer-centric approach, and consistently monitoring service delivery standards can help ensure high-quality service, leading to enhanced customer satisfaction.

Invest in Digital Technology and Innovation: Given the significant impact of digital technology and innovation on customer satisfaction, luxury hotels should invest in advanced technological solutions. This includes implementing cutting-edge booking and check-in systems, enhancing online and mobile user interfaces, and incorporating smart room technologies. Continuous innovation in service delivery can help meet the evolving expectations of tech-savvy customers, thereby improving their overall experience.

Enhance Loyalty Programs: Luxury hotels should develop and maintain well-structured loyalty programs that offer personalized rewards and exclusive benefits. Programs that provide both economic and emotional value can strengthen customer bonds and encourage repeat business. Hotels should consider utilizing data analytics to better understand customer

preferences and tailor loyalty programs to individual needs, thereby increasing customer satisfaction and loyalty.

Adopt a Holistic Customer Experience Strategy: To comprehensively address customer satisfaction, luxury hotels should adopt a holistic approach that integrates service quality, technology, and loyalty initiatives. This includes ensuring seamless interactions across all customer touchpoints, from online bookings to in-person service encounters. Hotels should regularly gather and analyze customer feedback to identify areas for improvement and implement changes that enhance the overall customer experience.

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