

SERVICE INNOVATIONS AND CUSTOMER PATRONAGE OF FAST FOOD CENTERS IN PORT HARCOURT

Dr. Helena W. Orduwa & Dr. Godwill, Newman Evans
Department of Marketing, Ignatius Ajuru University, Port Harcourt, Rivers State, Nigeria

Phone: 08061594855, Email: helena.orduwa@iaue.edu.ng
Phone: 08105826395, Email: godwill.newman@iaue.edu.ng

Abstract

This paper empirically investigated the relationship between Service Innovations and Customer Patronage of Fast Food Centers in Port Harcourt. Specifically, the objectives of the study were to determine how technological innovation and menu innovation relates with customer retention and customer loyalty of fast food centers in Port Harcourt. The research design adopted was the correlational research design. The chosen population for this study comprised of all the customers of fast food centers in Port Harcourt. A sample size of 384 customers was chosen using Cochran formula for sample size determination for an infinite population. However, only 280 customers provided data for the study through questionnaire that was designed in the Likert 5-point scale of strongly disagree to strongly agree. Data were analyzed using descriptive and inferential statistics, with Pearson Product Moment Correlation (PPMC) used to test the null hypotheses. From results of the analysis, it was revealed that the dimensions of service innovations positively and significantly relate with customer retention and customer loyalty of fast food centers in Port Harcourt. Based on these findings, it was concluded that fast food businesses that invest in innovative service delivery systems and dynamic menu designs are more likely to maintain and grow a loyal customer base. Therefore, the study recommended amongst others that fast food centers should adopt advanced digital solutions such as mobile ordering apps, self-service kiosks, and digital payment systems to enhance customer convenience and satisfaction.

Keywords: Service Innovations; Customer Patronage; Technological Innovation; Menu Innovations; Customer Retention; Customer Loyalty

INTRODUCTION

The fast food industry in Nigeria has experienced remarkable growth over the past two decades, with urban centers such as Port Harcourt emerging as vibrant hubs for quick service restaurants (QSRs). This growth is largely attributed to the increasing urban population, changing lifestyles, and the demand for convenience among working-class Nigerians. As the competitive landscape intensifies, fast food businesses are compelled to adopt innovative strategies not only to differentiate themselves but also to retain customer loyalty in a market where alternatives are abundant. Service innovation is the development and implementation of new or significantly improved service concepts has thus become a central theme in strategic business discussions (Adewale, Samuel & Moradeke, 2014). The intersection of innovation and customer behavior is particularly relevant in service-based sectors like the fast food industry, where intangible factors such as customer experience, responsiveness, and service design significantly influence patronage. Scholars like Olise, Okoli, and Ekeke (2015) argue that customer patronage in Nigeria's fast food sector is deeply rooted in the perceived value derived from both functional service delivery and emotional satisfaction.

In the Nigerian context, service innovations in fast food centers range from the adoption of digital ordering platforms to customer-centric practices such as customization, promptness, and ambiance enhancements. The competitive value of these innovations lies in their ability to align service delivery with evolving customer expectations, thus enhancing overall satisfaction and repeat patronage (Etuk & Udonde, 2023). Port Harcourt, as a cosmopolitan city and industrial hub, presents a unique microcosm where local culture intersects with global consumer behaviors. This dynamic environment

makes it imperative for fast food businesses to continuously evolve their service offerings to capture and maintain market share. Studies have shown that innovations such as queue management systems, mobile app-based ordering, and interactive menus significantly enhance the dining experience, leading to higher levels of customer engagement and loyalty (Ekeke & Uboegbulam, 2020). Moreover, the responsiveness of service staff, as well as the physical layout and atmosphere of restaurants, contribute to customer perceptions of value and their decision to patronize a particular outlet repeatedly.

Existing literature also highlights the mediating role of service quality in the relationship between service innovation and customer patronage. For instance, Anyanwu, Ezeaku, and Ogboagha (2022) underscore how relationship marketing strategies when backed by consistent service innovation drive customer loyalty and advocacy in Nigeria's fast food chains. Furthermore, in Port Harcourt, where customer expectations are rapidly shaped by digital trends and exposure to global service standards, QSRs must integrate digital marketing strategies, loyalty programs, and personalization tools to remain competitive (Igani, 2023). These innovations do not merely represent technological adoption but are strategic responses to the fluid nature of customer behavior in metropolitan markets. Empirical findings by Ndem and Obasiabara (2021) confirm that a well-structured service delivery process that integrates innovation not only improves customer satisfaction but also builds long-term relationships crucial for sustainable growth in a saturated market like that of Port Harcourt.

Despite the demonstrated benefits of service innovation, there remains a gap in understanding the specific nature and extent of its influence on customer patronage within the localized setting of Port Harcourt. While previous studies have examined similar relationships in other Nigerian cities like Calabar (Amadi & Mpuon, 2023) and Ibadan (Adewale et al., 2014), localized assessments are crucial due to demographic and socio-economic variations. Additionally, the influx of multinational QSRs into the Nigerian market has introduced higher service expectations, which local fast food centers must meet through continuous innovation. These market dynamics necessitate empirical investigations that contextualize service innovation within the Port Harcourt fast food ecosystem, particularly to guide practitioners in aligning their service design with customer preferences. As Uchenna (2020) posits, innovative service approaches must be dynamic and grounded in consumer insight, especially in developing economies like Nigeria, where customer loyalty is often fragile and easily influenced by emerging alternatives.

Statement of the Problem

Despite the rapid proliferation of fast food centers in Port Harcourt and the apparent evolution in their service delivery, customer loyalty and repeat patronage remain inconsistent and often unpredictable. Many fast food centers invest heavily in aesthetic enhancements, digital ordering systems, and menu diversification yet fail to translate these into sustained customer retention. This raises critical concerns about the effectiveness and relevance of the innovations being adopted in this sector. While prior studies (e.g., Adewale et al., 2014; Olise et al., 2015) have explored factors influencing customer satisfaction in other Nigerian cities, there is a dearth of empirical studies focused specifically on the Port Harcourt context, where socio-cultural and economic dynamics may uniquely shape consumer behavior. Moreover, the heterogeneity of service innovations ranging from digital engagement to customer service protocol warrants a more nuanced examination of which innovations truly drive customer patronage and which may be failing to deliver value.

Furthermore, the current body of knowledge lacks clarity on the mediating or moderating factors that influence the relationship between service innovation and customer patronage in fast food environments. It remains uncertain whether customers in Port Harcourt perceive these innovations as enhancements to their service experience or merely as superficial trends with little functional value. Existing literature (e.g., Ndem & Obasiabara, 2021; Igani, 2023) suggests that while service quality improvements can enhance customer satisfaction, they must align with customer expectations and local consumer psychology to achieve long-term impact. In the absence of localized

research, fast food operators risk investing in innovations that do not yield the expected increase in patronage, leading to resource misallocation and strategic misalignment. Therefore, a comprehensive investigation is urgently needed to determine the specific types of service innovations that influence customer loyalty and to assess how these innovations affect the behavioral intentions of fast food consumers in Port Harcourt.

Conceptual Model

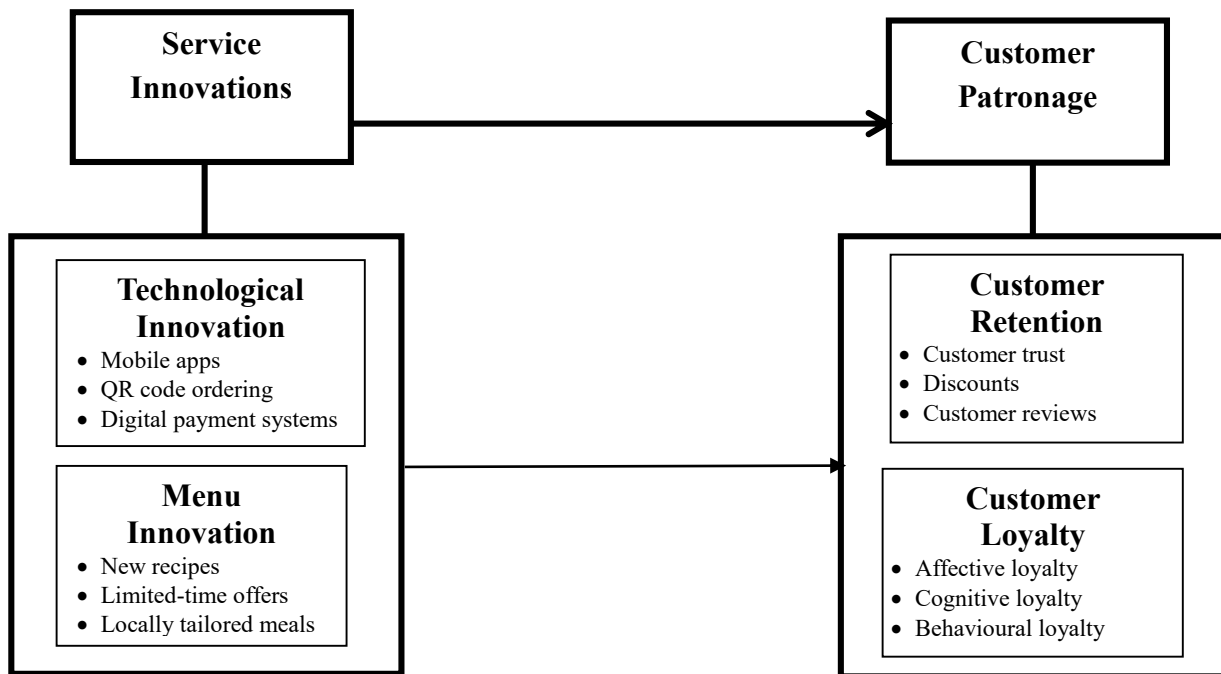


Figure 1: the conceptual model showing the relationship between service innovations and customer patronage of fast food centers in Port Harcourt.

Sources: Kotler and Keller, (2017); Kaplan and Haenlein (2021); Ekeke & Uboegbulam, (2020)

Aim and Objectives of the Study

The aim of this paper is to determine the relationship between service innovations and customer patronage of fast food centers in Port Harcourt. Specifically, the objectives of this paper were to:

1. examine the relationship between technological innovation and customer retention of fast food centers in Port Harcourt.
2. determine the relationship between technological innovation and customer loyalty
3. ascertain the relationship between menu innovation and customer retention of fast food centers in Port Harcourt.
4. explore the relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt.

Research Questions

The following research questions guided this paper:

1. What is the relationship between technological innovation and customer retention of fast food centers in Port Harcourt?
2. What is the relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt?

3. What is the relationship between menu innovation and customer retention of fast food centers in Port Harcourt?
4. What is the relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt?

Research Hypotheses

The following null hypotheses were tested using 0.05 level of significance as a threshold:

H₀₁: There is no significant relationship between technological innovation and customer retention of fast food centers in Port Harcourt.

H₀₂: There is no significant relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt.

H₀₃: There is no significant relationship between menu innovation and customer retention of fast food centers in Port Harcourt.

H₀₄: There is no significant relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt.

Theoretical Application

The paper is anchored on technology acceptance model.

Technology Acceptance Model

The technology acceptance model (TAM), developed by Davis (1989), offers a robust theoretical foundation for understanding user adoption of technology-driven innovations. It posits that two primary factors (perceived usefulness and perceived ease of use) determine an individual's intention to use a new technology or system. These constructs influence users' attitudes toward using the innovation, which subsequently affects their behavioral intention and actual usage. In the context of service innovations in fast food centers, TAM provides a useful lens through which customer responses to digital ordering systems, mobile applications, automated services, and other technology-based enhancements can be analyzed. Customers are more likely to patronize a fast food center if they perceive that the innovations improve their convenience, speed of service, or overall dining experience. Thus, TAM is instrumental in assessing how customer perceptions of innovation translate into behavioral outcomes such as increased patronage or brand loyalty (Venkatesh & Davis, 2000; Ayo, Ekong, Fatudimu, & Adebisi, 2011).

In applying TAM to the study of customer patronage in Port Harcourt fast food centers, the model serves as a framework for evaluating how service innovations influence customer behavior. For instance, innovations such as self-service kiosks, loyalty apps, or contactless payment methods can be examined in terms of their perceived ease of use and usefulness from the customer's perspective. If customers believe these technologies reduce wait times and simplify transactions, they are more likely to view the service as valuable, thereby reinforcing their intention to return. Moreover, TAM's relevance extends to cultural and contextual adaptation, as several Nigerian-based studies have shown its applicability in explaining consumer behavior in tech-enhanced environments (Okoye, Eze, & Odum, 2020; Afolabi & Ajayi, 2018). Given the increasing integration of digital solutions in fast food services, TAM offers an evidence-based structure for analyzing the psychological mechanisms that underpin customer decisions to patronize technologically innovative fast food businesses in Port Harcourt.

Service Innovation

Service innovation refers to the introduction of new or significantly improved service offerings, service delivery processes, or service business models that create additional value for customers and firms. In the fast food industry, service innovation can take various forms such as self-service kiosks, mobile ordering apps, queue management systems, and interactive customer service platforms. These innovations are aimed at enhancing efficiency, improving customer satisfaction, and differentiating service offerings in a competitive market. According to Den Hertog et al. (2010),

service innovation plays a strategic role in value creation by integrating technological, organizational, and user-driven elements into service processes.

In the Nigerian fast food sector, service innovation has become a survival strategy amidst increasing competition and rising consumer expectations. Olise, Okoli, and Ekeke (2015) observed that customers increasingly evaluate fast food outlets based on the quality and novelty of the service experience, beyond just food quality. Thus, innovations in service delivery significantly influence customer patronage and loyalty. Furthermore, service innovation is also linked to market responsiveness, as businesses that adapt quickly to changing customer needs through innovative services tend to outperform less agile competitors (Afolabi & Ajayi, 2018).

Dimensions of Service Innovation

Technological Innovation

Technological innovation involves the application of new or significantly improved technologies to products, services, or processes that enhance efficiency, effectiveness, or customer satisfaction. In the fast food industry, it includes innovations such as mobile ordering apps, digital payment systems, AI-driven personalization, and automated kitchen technologies. These innovations are increasingly used to streamline operations, reduce human error, and provide a more engaging customer experience. According to Schumpeterian theory, technological innovation is a key driver of competitive advantage and business growth (Schumpeter, 1934).

In Nigeria, fast food businesses are gradually adopting digital platforms and other technological tools to remain competitive and relevant, especially among the tech-savvy youth demographic. For example, the adoption of digital loyalty programs and real-time order tracking systems has enhanced operational transparency and customer trust (Etuk & Udonde, 2023). However, the success of such innovations depends largely on customer acceptance, as users must perceive these technologies as useful and easy to use (Davis, 1989). The effectiveness of technological innovations in this sector is not only a function of technical advancement but also the alignment with consumer behavior and expectations.

Menu Innovation

Menu innovation refers to the process of introducing new food items, reformulating existing ones, or altering menu structure and presentation to better meet changing consumer tastes and preferences. In fast food services, it can involve incorporating local flavors, offering healthier options, or creating limited-time promotional meals. Menu innovation serves as a strategic tool to attract new customers, maintain customer interest, and respond to competitive pressures. According to Kimes (2011), menu innovation is a key component of product development that influences customer satisfaction and repeat visits.

In Nigeria, where food culture is diverse and regionally distinct, fast food centers are increasingly engaging in menu innovation to appeal to local tastes while maintaining standardization. For example, offering jollof rice variants, indigenous soups, and local snacks alongside international meals has helped fast food outlets expand their customer base (Olise et al., 2015). Menu innovation also aligns with customer health concerns and dietary trends, allowing businesses to stay relevant and competitive in a fast-evolving market. The dynamic nature of consumer preference necessitates continuous innovation for brand relevance and sustained patronage.

Customer Patronage

Customer patronage refers to the frequency and consistency with which customers visit or purchase from a particular business or service provider. In the fast food context, patronage is influenced by factors such as perceived service quality, pricing, brand reputation, convenience, and innovation. Patronage behavior reflects both the satisfaction of prior experiences and the likelihood of future engagements. According to Zeithaml, Berry, and Parasuraman (1996), customer perceptions of value directly impact their willingness to revisit and recommend a service outlet.

In Port Harcourt, customer patronage of fast food centers is increasingly shaped by lifestyle changes, time constraints, and urban convenience demands. However, poor service delivery, lack of innovation, or inconsistent quality often lead to customer churn. Therefore, understanding what drives customer patronage—particularly the role of service and technological innovation—is critical for business sustainability. As emphasized by Alao, Akinola, and Akinbobola (2020), businesses that strategically enhance customer experience through innovation tend to see higher levels of patronage in Nigeria's competitive service sector.

Measures of Customer Patronage **Customer Retention**

Customer retention is the ability of a business to maintain its customer base over time, ensuring that customers continue to engage with the business rather than switch to competitors. It is a critical performance metric in service industries where customer acquisition costs are high, and repeat business is essential for profitability. Retention strategies often include loyalty programs, personalized service, consistent quality, and responsive customer care. As Reichheld and Sasser (1990) argued, increasing customer retention by just 5% can boost profits by 25–95%, illustrating its strategic value.

In fast food centers, especially in urban areas like Port Harcourt, customer retention depends on consistently meeting or exceeding customer expectations. With the rise of digital platforms and service innovations, customers are now more empowered and selective. Businesses must ensure that their innovations translate into meaningful customer experiences that foster trust and satisfaction (Etuk & Udonde, 2023). Retention is not just about repeat transactions but building lasting relationships that can lead to referrals, brand advocacy, and sustained revenue streams.

Customer Loyalty

Customer loyalty is the psychological commitment a customer has toward a brand or service provider, resulting in repeat patronage and advocacy despite competitors' offerings. It is often built over time through positive experiences, emotional connection, trust, and satisfaction. Loyal customers tend to have higher lifetime value, reduced price sensitivity, and are more likely to recommend the business to others. According to Oliver (1999), customer loyalty moves from cognitive (belief in brand superiority) to affective (emotional attachment), and finally to conative (behavioral intention) loyalty.

In the Nigerian fast food sector, customer loyalty is increasingly challenged by the growing number of options and the ease with which customers can switch providers. Innovations that personalize service, reward repeat visits, and offer consistent quality have proven effective in cultivating loyalty (Anyanwu, Ezeaku, & Ogboagha, 2022). For businesses in Port Harcourt, where customer expectations are rising, loyalty must be earned through strategic innovation and service excellence. Loyal customers are not just repeat buyers—they become brand ambassadors who drive organic growth.

Empirical Reviews

Fasanmi and Oyedele (2023) conducted a significant empirical investigation titled exploring the role of innovation on economic performance of manufacturing firms in Nigeria. The study aimed to determine the extent to which innovation—particularly service and process innovation—affects economic and marketing performance metrics such as market share, customer satisfaction, and return on investment. Using a quantitative research design, they surveyed 225 managerial staff from manufacturing firms across Lagos and Ogun States. Through the application of structural equation modeling (SEM), the researchers found that service innovation had a strong positive and statistically significant relationship with marketing performance indicators. The study revealed that firms that introduced customized after-sales services, digital ordering systems, and automated support channels experienced higher customer retention rates and improved brand equity. The robustness

of the model was affirmed with high goodness-of-fit indices, although the study acknowledged limitations in regional scope. This work reinforces the strategic imperative of service innovation in gaining a competitive edge, particularly in saturated manufacturing markets in Nigeria.

Dike, Eboh, and Akam (2023), in their paper customer relationship management and the performance of deposit money banks in South-East Nigeria, examined the intersection of service innovation and customer-focused marketing performance. The researchers set out to determine how innovations in customer relationship management (CRM)—including digital self-service portals, AI-assisted chatbots, and personalized marketing—affect banks' ability to attract and retain customers. The study adopted a cross-sectional survey design and utilized regression analysis to assess responses from 310 bank employees and clients. Findings indicated a significant positive effect of service quality innovations on financial and marketing performance ($p < 0.01$), especially in terms of customer acquisition and loyalty. The authors concluded that innovative CRM strategies that enhance service accessibility and responsiveness were strong predictors of marketing performance. However, the study was limited by its focus on South-East Nigeria and may not generalize nationally. Despite this, the research provides actionable insights for financial service firms aiming to boost their market performance through service innovation.

Wombo and Goyit (2023) explored the relationship between administrative innovation (a form of service innovation) and financial performance in Nigerian deposit money banks in their study titled administrative innovation and financial performance of deposit money banks in Nigeria. The authors aimed to assess how service innovations in internal communication, digital service structures, and workflow processes influence broader marketing outcomes like brand trust and customer acquisition. Using descriptive statistics and multiple regression analysis on data collected from 287 respondents across 10 banks, the study revealed that administrative innovations positively influenced not only operational efficiency but also customer-facing marketing outcomes such as service delivery satisfaction and brand image enhancement. The authors highlighted that banks that invested in seamless mobile banking platforms, automated customer query systems, and real-time transaction alerts gained greater customer loyalty and higher brand recommendations. This study contributes meaningfully to the discourse by connecting back-office innovations with front-end marketing results and supports the notion that marketing performance is not just externally driven, but also shaped by internal service systems.

Mpuon, Eyo, and Akaninyene (2023) in their empirical work titled supply chain channel strategy and marketing performance of agricultural products firms in Nigeria, provided a broader industry perspective by examining how service and channel innovations influence marketing performance in agribusinesses. Their objective was to assess how service delivery structures such as just-in-time delivery systems, farmer-app interfaces, and blockchain-enabled transparency affect firm visibility and market penetration. Using stratified sampling, data were collected from 180 respondents in four states in the South-South region of Nigeria. Analytical results showed that firms integrating technological and service innovations into their distribution channels reported better product accessibility, improved customer satisfaction, and stronger brand credibility in both local and export markets. The study further emphasized that collaboration with tech firms to innovate delivery mechanisms was central to sustaining competitive advantage in Nigeria's agribusiness landscape. While the study addressed a relatively niche sector, its methodological rigor and relevance to rural-urban food chains make it a key reference for innovation-driven marketing research.

Knowledge Gap

Despite the growing body of literature exploring the relationship between service innovation and various performance indicators in sectors such as banking, manufacturing, and agribusiness in Nigeria, there remains a significant knowledge gap concerning how service innovations directly influence customer patronage within the fast food industry, particularly in Port Harcourt. Most existing studies either generalize findings across broad service sectors or focus on technological

innovation in urban centers like Lagos and Abuja, with limited empirical attention to the socio-cultural and economic dynamics unique to Port Harcourt’s consumer market. Moreover, while prior research often emphasizes customer satisfaction or financial performance, few have thoroughly examined customer patronage behavior such as customer retention and customer loyalty as it relates to specific categories of service innovation (e.g., technological innovation and menu innovation) in fast food establishments. This gap in localized and behavior-specific research hinders the ability of fast food operators to develop targeted innovation strategies that align with consumer expectations and preferences in this urban, industrial context.

Research Methodology

This study adopted a correlational research design to investigate the relationship service innovation and customer patronage of fast food centers in Port Harcourt. The correlational design was deemed appropriate as it enables the researcher to assess the strength and direction of relationships between the variables without manipulating them. The population of this study comprised customers of the fast food centers in Port Harcourt. Due to the indefinite and continuously changing number of customers, the population was considered infinite. To determine the sample size, Cochran’s formula for infinite population was employed, resulting in a minimum sample size of 384 respondents. A simple random sampling technique was adopted to ensure that every customer had an equal chance of being selected, thereby reducing sampling bias and enhancing the generalizability of the findings. The source of data was primary data, collected directly from respondents through the use of a structured questionnaire designed to capture relevant information on service innovations and customer patronage. To ensure the validity of the research instrument, both face validity and content validity were employed, involving the review and input of academic experts and professionals in aviation marketing. The reliability of the instrument was tested using the Cronbach Alpha method, with acceptable thresholds confirming the internal consistency of the questionnaire items. Data collected were analyzed using Statistical Package for Social Sciences (SPSS) version 27.0. The study employed the Pearson Product Moment Correlation Coefficient to test the hypotheses and determine the strength and direction of the relationship between the dimensions of service innovations and measures of customer patronage. All analyses were carried out at a 5% level of significance, ensuring rigorous and statistically valid results.

Data Presentation and Analysis

Questionnaire	Frequency	Percent
Produced Copies	384	100%
Distributed Copies	384	100%
Retrieved Copies	315	82.0%
Copies not Retrieved	69	18.0%
Valid Copies	280	72.9%
Invalid Copies	35	9.1%

Source: Field Survey, 2025.

Table 2: Gender Distribution of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	148	52.9	52.9	52.9
	Female	132	47.1	47.1	100.0
Total		280	100.0	100.0	

Source: Field Survey, 2024

Table 2 above shows that out of the 280 copies of questionnaire valid, male respondents answered 148 copies representing 52.9% of the respondents; while female respondents answered 132 copies representing 47.1% of the total respondents.

Table 3 Marital Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	82	29.3	29.3	29.3
	Married	138	49.3	49.3	78.6
	Divorced	38	13.6	13.6	92.1
	Widowed	22	7.9	7.9	100.0
	Total	280	100.0	100.0	

Source: Field Survey 2025

Table 3 shows that out of the 280 copies of questionnaire valid, single respondents answered 82 copies representing 29.3% of the respondents; married respondents answered 138 copies representing 49.3%; divorced respondents answered 38 copies representing 13.6%; while widowed respondents answered 22 copies representing 7.9% of the total respondents.

Table 4: Age Bracket Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25 years	16	5.7	5.7	5.7
	26-35 years	82	29.3	29.3	35.0
	36-45 years	67	23.9	23.9	58.9
	46-50 years	67	23.9	23.9	82.9
	51 years and above	48	17.1	17.1	100.0
	Total	280	100.0	100.0	

Source: Field Survey 2025

From table 4 above, out of the valid 280 copies of questionnaire returned, age bracket within 18-25 answered 16 copies which indicates 5.7% of the respondents; age bracket 26-35 answered 82 copies which indicates 29.3% of the respondents; age bracket 36-45 answered 67 copies which indicates 23.9%; age bracket 46-50 answered 67 which indicates 23.9% whereas age 51 and above answered 48 copies which represents 17.1% of the total respondents.

Table 5: Educational Qualification of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.SC/B.ED/B.A/HND	128	45.7	45.7	45.7
	M.SC/M.ED/M.A/MBA	141	50.4	50.4	96.1
	PHD	11	3.9	3.9	100.0
	Total	280	100.0	100.0	

Source: Field Survey 2025

Table 5 shows that out of the 280 copies of questionnaire valid, B.Sc/B.Ed/B.A/H.N.D holders answered 128 copies which indicated 45.7% of the respondents. M.SC.M.ED/M.A/M.B.A holders answered 141 copies which indicate 50.4%. PHD holders answered 11 copies which indicates 3.9% of the respondents.

Testing of Hypotheses

Research Question One: What is the relationship between technological innovation and customer retention of fast food centers in Port Harcourt?

Hypothesis One: There is no significant relationship between technological innovation and customer retention of fast food centers in Port Harcourt.

Table 5: Computation of relationship between technological innovation and customer retention of fast food centers in Port Harcourt.

		Correlations	
		Technological Innovation	Customer Retention
Technological Innovation	Pearson Correlation	1	.775**
	Sig. (2-tailed)		.000
	N	280	280
Customer Retention	Pearson Correlation	.775**	1
	Sig. (2-tailed)	.000	
	N	280	280

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output, 2025.

The SPSS output in Table 5 indicates that a Pearson's Correlation analysis was conducted to evaluate the relationship between technological innovation and customer retention of fast food centers in Port Harcourt utilizing a sample of 280 customers of fast food centers. The resulting correlation coefficient (r-value) of 0.775 which shows a strong positive relationship between technological innovation and customer retention of fast food centers in Port Harcourt. Furthermore, the significance level, represented by a probability value of 0.000, is well below the 0.05 threshold, confirming that the relationship is statistically significant. Therefore, we can therefore conclude that there is a strong, positive, and statistically significant relationship between technological innovation and customer retention of fast food centers in Port Harcourt.

Research Question Two: What is the relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt?

Hypothesis Two: There is no significant relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt.

Table 6: Computation of relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt.

		Correlations	
		Technological Innovation	Customer Loyalty
Technological Innovation	Pearson Correlation	1	.821**
	Sig. (2-tailed)		.000
	N	280	280
Customer Loyalty	Pearson Correlation	.821**	1
	Sig. (2-tailed)	.000	
	N	280	280

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output, 2025.

The SPSS output presented in Table 6 reveals that a Pearson's Correlation analysis was conducted to evaluate the relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt, based on responses from a sample of 280 customers of fast food centers. The correlation coefficient (r-value) of 0.821 also shows a very strong positive relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt. Additionally, the significance of this relationship is shown by a probability value of 0.000, which is significantly lower than the 0.05 threshold, confirming that the relationship is statistically significant. Thus, we can for sure say that there is a very strong, positive, and statistically significant relationship between technological innovation and customer loyalty of fast food centers in Port Harcourt.

Research Question Three: What is the relationship between menu innovation and customer retention of fast food centers in Port Harcourt?

Hypothesis Three: There is no significant relationship between menu innovation and customer retention of fast food centers in Port Harcourt.

Table 7: Computation of relationship between menu innovation and customer retention of fast food centers in Port Harcourt

		Menu Innovation	Customer Retention
Menu Innovation	Pearson Correlation	1	.828**
	Sig. (2-tailed)		.000
	N	280	280
Customer Retention	Pearson Correlation	.828**	1
	Sig. (2-tailed)	.000	
	N	280	280

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output, 2025.

The SPSS output in Table 7 indicates that a Pearson’s Correlation analysis was conducted to examine the relationship between menu innovation and customer retention of fast food centers in Port Harcourt, based on a sample of 280 customers of fast food centers. The resulting correlation coefficient (r-value) of 0.828 which demonstrates a strong and positive relationship between menu innovation and customer retention of fast food centers in Port Harcourt. More so, the significance of this relationship is confirmed by a probability value of 0.000, which is substantially below the 0.05 threshold, indicating that the relationship is statistically significant. Therefore, it can be said that there is a strong, positive, and statistically significant relationship between menu innovation and customer retention of fast food centers in Port Harcourt.

Research Question Four: What is the relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt?

Hypothesis Four: There is no significant relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt.

Table 8: Computation of relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt

		Menu Innovation	Customer Loyalty
Menu Innovation	Pearson Correlation	1	.827**
	Sig. (2-tailed)		.000
	N	280	280
Customer Loyalty	Pearson Correlation	.827**	1
	Sig. (2-tailed)	.000	
	N	280	280

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output, 2025.

The SPSS output in Table 8 reveals that a Pearson’s Correlation analysis was conducted to evaluate the relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt, based on responses from a sample of 280 customers of fast food centers. The correlation coefficient (r-value) of 0.827 indicates a very strong positive relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt. Moreover, the significance of this relationship

is confirmed by a probability value of 0.000, which is well below the 0.05 threshold, indicating that the relationship is statistically significant. Consequently, we can conclude that there is a very strong, positive, and statistically significant relationship between menu innovation and customer loyalty of fast food centers in Port Harcourt.

CONCLUSION

The study established that service innovations, particularly technological and menu innovations, significantly influence customer patronage of fast food centers in Port Harcourt. The findings revealed that technological innovation has a strong and statistically significant positive relationship with both customer retention ($r = 0.775$, $p = 0.000$) and customer loyalty ($r = 0.821$, $p = 0.000$). Similarly, menu innovation demonstrates an even stronger and highly significant positive correlation with customer retention ($r = 0.828$, $p = 0.000$) and customer loyalty ($r = 0.827$, $p = 0.000$). These results suggest that service innovations are key strategic tools for enhancing customer experience and fostering sustained patronage in the fast food sector. Therefore, fast food businesses that invest in innovative service delivery systems and dynamic menu designs are more likely to maintain and grow a loyal customer base.

RECOMMENDATIONS

1. Fast food centers should adopt advanced digital solutions such as mobile ordering apps, self-service kiosks, and digital payment systems to enhance customer convenience and satisfaction.
2. Management should regularly innovate menu offerings by introducing new, healthy, and culturally relevant meal options that align with changing customer preferences.
3. Businesses should implement data-driven strategies to monitor customer behavior and feedback, allowing for timely and customer-centric service improvements.
4. Employees should be trained regularly on the use of new technologies and the importance of menu creativity to ensure consistent delivery of high-quality service innovations.

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