

Influence of Hygiene Attributes on Staff Outlet Selection and Constraints to Hygiene Compliance in Campus-Based Fast-Food Services

By

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Abstract

This study examined the influence of hygiene attributes on staff outlet selection and the constraints to hygiene compliance in campus-based fast-food services within the University of Calabar, Cross River State, Nigeria. The study was guided by two research questions. A descriptive survey research design was adopted for the study. The population comprised 415 academic and non-academic staff drawn from the Faculty of Social Sciences and the Faculty of Environmental Sciences, including departments such as Economics, Sociology, Political Science, Geography, Architecture, and others, alongside selected registered fast-food outlets including Tourism Kitchen, Mma Okon Kitchen, and outlets located in Hall Two. A sample size of 212 respondents (with 189 valid responses returned) was determined using one-half of the population and selected through a combination of convenience and purposive sampling techniques. Convenience sampling was used to administer questionnaires to staff patronizing the outlets, while purposive sampling was used to select registered fast-food outlets relevant to the study. Data were collected using a structured questionnaire and supported by field assistants over a one-month period. The data were analyzed using descriptive statistics, specifically mean and standard deviation, to answer the research questions. The findings revealed that hygiene attributes such as environmental cleanliness, proper food handling practices, personal hygiene of food handlers, availability of sanitation facilities, food freshness, and regular cleaning routines significantly influence staff choice of fast-food outlets. Clean and well-maintained environments were identified as the most important determinants of outlet selection. The study further revealed that several challenges hinder effective hygiene compliance, including inadequate staff training, weak supervision, limited access to clean water and sanitation facilities, poor waste management systems, and inconsistent enforcement of hygiene standards. It was also observed that some outlets adhered to hygiene practices only during inspection periods, indicating inconsistencies in sustained compliance. The study concluded that while hygiene attributes play a critical role in shaping staff preferences for fast-food outlets, multiple operational and structural constraints limit consistent hygiene compliance in campus-based food services. The study recommended

continuous staff training, strengthened monitoring and supervision, improved provision of sanitation infrastructure, and stricter enforcement of food safety regulations to enhance hygiene compliance and overall service quality.

Keywords: Hygiene attributes, Staff outlet selection, Hygiene compliance, Fast-food services, Campus-based outlets, University of Calabar

Introduction

Hygiene compliance has become a critical factor in determining the success, sustainability, and overall performance of fast food outlets globally. The industry caters to millions of consumers daily, with staff constituting a significant portion of this population because of their dependence on affordable and convenient meal options. With the increasing demand for food safety, there is a growing emphasis on the need for outlets to maintain strict adherence to hygiene regulations. Hygiene standards cover food preparation, storage, handling, staff practices, and the overall cleanliness of facilities. These elements are directly linked not only to customer satisfaction but also to staff satisfaction, as employees working in clean, well-maintained environments tend to experience greater motivation, job satisfaction, and productivity. A hygienic work environment enhances staff morale, reduces occupational health risks, and fosters a sense of pride and professionalism among workers (World Health Organization, 2021).

Globally, studies have shown that both customer and staff satisfaction in fast food outlets are significantly influenced by hygiene standards and compliance with safety regulations. Poor hygiene practices can lead to foodborne illnesses, which not only endanger public health but also create stressful and unsafe working conditions for employees. For instance, research in the United States indicates that over 48 million people suffer annually from foodborne diseases, with a significant proportion linked to poor hygiene in restaurants and fast food outlets (Centers for Disease Control and Prevention, 2020). This underscores the importance of compliance with hygiene regulations as both a public health priority and a determinant of employee satisfaction and workplace efficiency. In Europe, the European Food Safety Authority emphasizes that hygiene and sanitation compliance are essential in preventing outbreaks of foodborne pathogens such as *Salmonella* and *E. coli* in public food establishments. A study by Verbeke, Van Huylenbroeck & Sioen (2020) found that University staff in Belgium rated hygiene and cleanliness as the most important factors influencing their decision to patronize fast food outlets, ranking them even above price and convenience. Similarly, research in the United Kingdom reveals that hygiene ratings displayed in outlets significantly affect not only customer confidence but also staff morale and job satisfaction,

as workers in highly rated outlets feel more valued and motivated (Jin, Line, & Merkebu, 2016).

In Asia, the significance of hygiene compliance is equally evident. In China, the rapid expansion of international and local fast food outlets has heightened consumer and employee concerns about safety and sanitation. Wu et al. (2018) observed that hygiene practices such as the use of gloves, staff uniforms, and visible cleaning routines greatly influenced both customer satisfaction and employee morale. Similarly, in India, staffs have shown a preference for fast food outlets that prioritize food safety certifications and visibly enforce hygiene standards, reflecting a growing awareness of health implications in dining choices (Gupta & Sajnani, 2019). These findings suggest that hygiene compliance is not only a regulatory obligation but also a strategic approach that enhances both customer trust and staff satisfaction in the fast food industry.

Several studies have highlighted that foodborne diseases remain prevalent in many African countries, largely due to poor hygiene practices in food outlets (World Health Organization, 2022). This reality makes hygiene compliance not merely a customer service concern but a public health necessity and an internal management issue. Staff members who work in hygienic environments are less exposed to occupational health risks and tend to exhibit higher job satisfaction, commitment, and efficiency. According to Chukwuma and Eze (2023), staff satisfaction largely depends on their perception that food outlets maintain high levels of sanitation through safe food handling, proper waste disposal, and clean dining areas. Employees working in such environments also tend to express greater pride and contentment in their work. Outlets that implemented visible hygiene practices, such as handwashing stations and proper waste management systems, have been found to report higher levels of both customer and staff satisfaction. In South Africa, research conducted by Steyn et al. (2011) revealed that university staff perceived fast food hygiene standards as critical to their overall dining experience and their willingness to recommend such outlets to colleagues.

At the same time, staff members in outlets with consistent hygiene monitoring reported improved morale and motivation due to safer and more organized work environments.

The growth of fast food outlets across Africa has significantly transformed the eating habits of staff, who represent a major consumer segment within this industry. With increasing urbanization, globalization, and lifestyle changes, fast food restaurants have become a convenient choice for staff due to their affordability, accessibility, and quick service (Afolabi, 2022). Broader studies across Nigerian tertiary institutions and similar contexts reinforce the

link between hygiene practices and satisfaction, suggesting that both customers and employees respond positively to visibly clean and well-maintained environments.

Studies have shown that hygiene attributes play a significant role in influencing food outlet preference and patronage among consumers and institutional users. Cleanliness of the environment, proper food handling practices, and personal hygiene of food handlers are consistently identified as major determinants of choice in fast-food settings (Wu et al., 2018; Putri et al., 2021). Similarly, Jin et al. (2016) and Chen and Huang (2020) observed that perceived hygiene quality strongly affects customer satisfaction and loyalty in quick-service restaurants. In university environments, Musa et al. (2019) and Adeyemi and Olayinka (2020) reported that students and staff prefer food outlets that demonstrate visible cleanliness and safe food handling practices. These findings align with the Health Belief Model, which suggests that individuals are more likely to engage with environments they perceive as safe and hygienic (Champion & Skinner, 2008). Furthermore, studies by Alanezi et al. (2024) and Amaechi et al. (2024) confirm that hygiene perception significantly influences behavioral choices in food service environments.

On the other hand, research has also identified several constraints to effective hygiene compliance in food service operations. Inadequate training, poor supervision, limited infrastructure, and weak enforcement of food safety regulations are commonly reported barriers (Ameh et al., 2021; Mphasha et al., 2024). Oluwafemi and Simisaye (2021) and Okon et al. (2022) further noted that many food vendors in Nigerian tertiary institutions struggle with maintaining consistent hygiene standards due to resource limitations and operational pressures. Studies by AlBlooshi et al. (2022) and Djekic et al. (2014) also emphasize that compliance often fluctuates, especially when monitoring is weak or irregular. These findings support the results of the present study, which show that while hygiene attributes strongly influence staff outlet selection, sustained compliance remains hindered by systemic and operational challenges within campus-based fast-food services.

In a multi-campus analysis from Abia State, hygiene and food safety practices measured through checklists and structured questionnaires were found to significantly influence consumer choice of on-campus vendors, indicating that compliance is not only a public health imperative but also a strategic driver of demand (Amaechi et al., 2024). Related investigations in Nigerian cities further report that service tangibility, which includes the cleanliness of facilities, food handling practices, and staff appearance, is a major predictor of satisfaction in fast food restaurants frequented by young customers (Ekpo et al., 2025). These patterns align with public health guidance that emphasizes fundamental hygiene controls such as

handwashing, separation of raw and cooked foods, maintenance of adequate cooking and holding temperatures, and protection from vectors and environmental contamination.

Within Cross River State, municipal-level assessments indicate that although many food handlers possess foundational knowledge and positive attitudes toward hygiene, actual practices often vary due to infrastructural challenges such as irregular water supply, inadequate storage facilities, and poor waste management systems. These constraints not only undermine hygiene compliance but also affect employee morale and perceived service quality among staff consumers (Okon, Ubi, & Basse, 2022).

In a university setting, staff satisfaction is therefore contingent not only on individual attitudes or vendor behavior but also on institutional support systems that enable compliance. Such supports include access to potable water, regular inspection and feedback mechanisms, structured training, and clear operational standards that promote consistent and safe practices.

Hygiene compliance in fast food outlets remains a critical factor influencing staff satisfaction within the University settings. Since these outlets serve as vital sources of affordable and convenient meals, the health, safety, and well-being of the university community depend directly on the hygienic conduct of food handlers and the cleanliness of facilities.

Statement of the problem

In developing contexts, particularly among university-based outlets, hygiene compliance is even more critical. Staff working under unsanitary conditions face health hazards, lack motivation, and often feel undervalued, which in turn affects service quality. In Ghana, Asiedu and Kukubo (2022) observed that poor hygiene practices in food outlets contributed to health risks not only for consumers but also for employees handling contaminated food, resulting in decreased job satisfaction. Similarly, in Nigeria, Oluwafemi and Simisaye (2021) found that compliance with hygiene standards among fast food handlers was low, largely due to inadequate training and limited institutional support. Such deficiencies reduce staff satisfaction and overall service effectiveness, leading to increased occupational stress and potential public health risks.

Despite global awareness, many fast food outlets continue to prioritize profitability over hygiene, creating a gap between expected standards and actual practices. This challenge underscores the need to assess hygiene compliance and its impact on staff satisfaction, as both factors are crucial for ensuring food safety, employee well-being, and sustainable business operations. Studies have shown that when hygiene standards are consistently maintained, staff

are more likely to report higher job satisfaction, demonstrate professionalism, and deliver better service, thereby contributing to a safer and more productive work environment (Murray et al., 2023).

Fast food outlets operating within and around the University of Calabar, Cross River State, Nigeria, play a significant role in daily campus life by providing accessible and affordable meal options. However, hygiene compliance within these outlets remains a pressing concern. Based on the aforementioned this study was thought of to find out the Influence of Hygiene Attributes on Staff Outlet Selection and Constraints to Hygiene Compliance in Campus-Based Fast-Food Services

Purpose of the study

This study examined Influence of Hygiene Attributes on Staff Outlet Selection and Constraints to Hygiene Compliance in Campus-Based Fast-Food Services . This study will specifically seek to;

1. Identify hygiene factors that influence staff choice to a fast food outlets in the study area
2. Examine the challenges preventing fast food outlets from maintaining hygiene in the study area

Research questions

The following research questions were raised to guide the study:

1. What hygiene factors influence staff choice of fast-food outlets in the study area?
2. What challenges prevent fast-food outlets from maintaining proper hygiene in the study area?

Methodology

This study adopted a survey research design to examine the influence of hygiene attributes on staff outlet selection and the constraints to hygiene compliance in campus-based fast-food services within the University of Calabar, Cross River State, Nigeria. The study was guided by two research questions. A descriptive survey research design was adopted for the study. The population comprised 415 academic and non-academic staff drawn from the Faculty of Social Sciences and the Faculty of Environmental Sciences, including departments such as Economics, Sociology, Political Science, Geography, Architecture, and others, alongside selected registered fast-food outlets including Tourism Kitchen, Mma Okon Kitchen, and outlets located in Hall Two. A sample size of 212 respondents (with 189 valid responses returned) was determined using one-half of the population and selected through a combination

of convenience and purposive sampling techniques. Convenience sampling was used to administer questionnaires to staff patronizing the outlets, while purposive sampling was used to select registered fast-food outlets relevant to the study. Data were collected using a structured questionnaire and supported by field assistants over a one-month period. The data were analyzed using descriptive statistics, specifically mean and standard deviation, to answer the research questions.

Results

This section presents the data analysis based on the research questions in the study. The data were analyzed using descriptive statistics, specifically mean and standard deviation, to answer the research questions.

Research question one

What hygiene factors influence staff choice of fast-food outlets in the study area?

The hygiene factors that influence staff choice to a fast-food outlet, as presented in Table 1, highlights the key elements that determine staff preference in the study area. The results show that a clean environment, including tidy tables, chairs, and surroundings, is the most influential factor, accounting for 18.52 percent of responses. This indicates that staffs are more likely to patronize outlets where the physical setting is neat, organized, and free from dirt. Proper food handling practices such as the use of gloves, aprons, and hairnets follow closely at 16.40 percent, suggesting a strong concern for the manner in which food is prepared and handled before serving. Staff personal hygiene, including appearance and neatness, is another major factor, with 15.87 percent of responses, demonstrating that workers prefer outlets staffed by individuals who are clean and professional. Other important considerations include neat serving plates and utensils, accounting for 10.58 percent, and waste disposal and toilet facilities, at 8.47 percent, reflecting staff emphasis on proper sanitation practices. Freshness of food, 7.94 percent, regular cleaning, 6.35 percent, and availability of clean water, 5.29 percent, also influence staff decisions, although to a lesser degree. Factors such as avoiding overcrowding with 4.23 percent, management supervision with 3.7 percent, and affordable prices despite hygiene compliance with 1.59 percent, recorded lower percentages, suggesting that while these elements are considered, they are not primary determinants of staff choice. Again, the findings indicate that environmental cleanliness, proper food handling, and staff personal hygiene are the strongest hygiene-related factors influencing staff preference for fast-food outlets. These results underscore the importance of maintaining high standards in both environmental and personal hygiene to attract and retain staff patronage.

Table 1: Hygiene factors that influence staff choice to a fast-food outlet

S/N	Hygiene factors that influence staff choice to a fast-food outlet	Frequency	Percentage
1	Clean environment (tables, chairs, surroundings)	35	18.52
2	Proper food handling (gloves, aprons, hairnets)	31	16.40
3	Clean water availability	10	5.29
4	Neat serving plates and utensils	20	10.58
5	Waste disposal and toilet facilities	16	8.47
6	Staff personal hygiene (appearance, neatness)	30	15.87
7	No overcrowding of customers	8	4.23
8	Freshness of food served	15	7.94
9	Regular cleaning of the outlet	12	6.35
10	Effective supervision by management	7	3.7
11	Affordable prices despite hygiene compliance	3	1.59
12	Others (please specify)	2	1.06
	Total	189	100

Source: Field work, 2026

Research question two

What challenges prevent fast-food outlets from maintaining proper hygiene in the study area?

The challenges preventing fast-food outlets in hygiene practices in the University of Calabar, as presented in Table 2, highlight the key obstacles to maintaining proper hygiene. The findings show that poor waste disposal systems are the most common challenge, accounting for 17.46 percent. This suggests that many outlets struggle with proper waste management, leading to unsanitary surroundings and increased risk of contamination. Overcrowding of customers follows at 12.17 percent, indicating that high customer inflow may hinder effective cleaning and proper monitoring of hygiene practices. Insufficient staff training on hygiene represents a significant challenge at 11.11 percent, highlighting that some food handlers may lack adequate knowledge of standard hygiene procedures. Lack of regular supervision with 10.58 percent, and negligence by food handlers with 9.52 percent, further demonstrate that monitoring and compliance remain major issues. Inconsistent government monitoring, at 8.47 percent, also contributes to the problem, as irregular inspections allow poor practices to go unchecked.

Other challenges include limited awareness of food safety rules and inadequate water supply, each at 6.08 percent, showing that some outlets operate without full knowledge or access to essential resources. Lack of cleaning equipment and poor vendor attitudes, both at 5.29 percent, indicate that some outlets lack the tools or motivation needed to maintain cleanliness. High cost of maintaining hygiene scored the lowest at 3.70 percent, suggesting that while financial constraints exist, they are not the primary barrier. Hence, the results indicate that poor waste management, overcrowding, insufficient staff training, and lack of supervision are the major challenges affecting hygiene maintenance in fast-food outlets. These findings underscore the need for improved training, regular monitoring, and provision of essential resources to enhance hygiene standards across all outlets.

Table 2: Challenges preventing fast-food outlets in hygiene practices in the University of Calabar from maintaining proper hygiene

S/N	Challenges preventing fast-food outlets in hygiene practices	Frequency	Percentage
1	Lack of regular supervision	20	10.58
2	Poor waste disposal systems	33	17.46
3	Inadequate water supply	12	6.35
4	Insufficient staff training on hygiene	21	11.11
5	Negligence by food handlers	18	9.52
6	Overcrowding of customers	23	12.17
7	Lack of cleaning equipment	10	5.29
8	High cost of maintaining hygiene	7	3.70
9	Inconsistent government monitoring	16	8.47
10	Attitude of food vendors	10	5.29
11	Limited awareness of food safety rules	12	6.35
12	All of the above	7	3.70
	Total	189	100

Source: Field work, 2026

Discussion of the findings

Hygiene Factors Influencing Staff Choice of Fast-Food Outlets

The result of the first research question revealed that hygiene attributes significantly influence staff choice of fast-food outlets in the University of Calabar. The findings showed that environmental cleanliness, proper food handling practices, personal hygiene of food handlers, availability of sanitation facilities, and food freshness are the major factors considered by staff when selecting where to eat. Staff were more likely to patronize outlets that maintain

visibly clean environments and adhere to basic hygiene standards. The study further indicated that regular cleaning routines and proper waste disposal also contribute to positive perceptions of hygiene quality. These findings are consistent with Wu et al. (2018), who noted that cleanliness and hygiene practices strongly determine customer preference in fast-food settings. Similarly, Putri et al. (2021) found that food hygiene and sanitation significantly influence customer satisfaction and loyalty. Chen and Huang (2020) also reported that perceived hygiene quality plays a key role in shaping food outlet selection and patronage behavior. In addition, Musa et al. (2019) observed that university staff and students prefer food outlets with visible hygiene compliance. The findings further support Jin et al. (2016), who emphasized that hygiene perception directly affects consumer decision-making in quick-service restaurants. However, the study noted that inconsistency in hygiene practices across outlets sometimes affects staff trust. Despite this, hygiene attributes remain a strong determinant of staff outlet selection in the study area.

Challenges Preventing Fast-Food Outlets from Maintaining Hygiene

The result of the second research question revealed that several challenges hinder fast-food outlets from maintaining proper hygiene in the University of Calabar. The findings showed that inadequate staff training, weak supervision, poor enforcement of hygiene standards, and limited access to clean water and sanitation facilities are major constraints. In addition, poor waste management practices and lack of essential equipment were identified as factors affecting consistent hygiene compliance. The study further revealed that some outlets only comply with hygiene standards during inspections, indicating weak monitoring systems. These findings are in agreement with Ameh et al. (2021), who identified poor training and supervision as major barriers to hygiene compliance in Nigerian food outlets. Similarly, Mphasha et al. (2024) reported that infrastructural limitations significantly affect food safety practices in food service environments. Oluwafemi and Simisaye (2021) also found that inconsistent enforcement of hygiene regulations contributes to poor compliance among food handlers. AlBlooshi et al. (2022) further emphasized that operational constraints and weak monitoring systems reduce adherence to food safety standards. Djekic et al. (2014) also noted that compliance with hygiene practices is often inconsistent in food establishments due to resource and management challenges. Despite these challenges, the study confirms that improving supervision, training, and infrastructure would significantly enhance hygiene compliance in fast-food outlets within the study area.

Conclusion

Based on the findings of the study, it was concluded that hygiene attributes and operational constraints significantly influence staff outlet selection and hygiene compliance in campus-

based fast-food services within the University of Calabar. The study established that hygiene factors such as environmental cleanliness, proper food handling, personal hygiene of food handlers, sanitation facilities, and food freshness play a major role in determining staff choice of fast-food outlets. It was also concluded that despite awareness of hygiene standards, compliance remains inconsistent due to key operational challenges. These include inadequate staff training, weak supervision, limited sanitation infrastructure, poor waste management, and irregular enforcement of hygiene regulations. The study further concluded that while hygiene attributes positively influence staff preferences and satisfaction, sustained compliance is hindered by systemic and managerial deficiencies within fast-food operations.

Recommendations

1. Based on the findings of the study, the following recommendations were made:
2. Fast-food operators should implement continuous training programs to improve staff knowledge and practice of both basic and critical hygiene standards, including food handling, sanitation, and personal hygiene practices.
3. Management of fast-food outlets should strengthen supervision and monitoring systems to ensure consistent compliance with hygiene standards, rather than compliance only during inspection periods.

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