



Research Article

Influence of Physio-environmental Factors on Successful of Off-Premises Catering Services Among Selected Hotels in Nairobi

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Abstract

Off-premises catering is an increasingly important service extension for hotels, yet its operational success is often challenged by physio-environmental factors, and policy-related constraints. This study examined key physio-environmental factors influencing successful off-premises catering among selected three- and four-star hotels in Nairobi County, Kenya. A mixed methodology study was conducted, with the use of a structured, self-administered questionnaire and interview schedule, designed to assess the influence of physio-environmental factors on Successful Off-Premises Catering in selected hotels in Nairobi. A total of 501 respondents participated in the study. The study established that, despite hotel establishments putting lots of effort to ensure customer satisfaction, majority of the customer 81.7% (94) were moderately satisfied, with customers citing dissatisfaction in aspects such as inadequate space provision during off premises catering events 27.8% (98), signage to and within event venues 34% (126) and availability of refrigerated transportation during events 36.5% (135). On the other hand, both management and operational staff pursue successful off premises catering though, adequate provision of off premises equipment 95.6% (110), prior familiarization of off premises site to ensure efficiency 89.6% (103) and provision of adequate electrical outlets 81.7% (94). This indicates a significant disparity between the physio-environmental factors that hotels consider important and adequately provided, and those that customers perceive as sufficient to meet their expectations. The study further unveiled, statistical significance between physio environmental factors and successful off premises catering ($F=6.726$, $p=0.011<0.05$). Additionally, the study obtained an $R^2=0.594$ implying that more than half of the variation in catering success can be attributed to the effects of physio-environmental factors. The study concluded that, off premises caterers, should invest more in market researches so as to fully comprehend what off premises customers prefer.

Keywords

Physio Environmental Factors, Off Premises, Catering, Star Rated Hotels, Nairobi

1. Background of the Study

A key factor of off-premises catering, is the event's outcome because it acts as a marketing tool to the caterer and equally enhances customer satisfaction [1]. Off-premises catering refers

to the preparation and service of food and beverages by a hotel or catering service at a location outside the establishment's premises, typically for events such as business meetings, private

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celebrations, or wedding ceremonies where guests are served at a designated external venue [2]. According to Nikolaou, et al. [3], off-premises caterers lack traditional service setups such as designated kitchens and dining halls, food and beverage service is luxuriously provided and conducted in diverse venues with different requirements as well as logistics, menus must be adaptable to accommodate a diverse range of available facilities and customer's demand. Off-premises catering is arguably one of the most challenging operations to execute effectively, as it is highly unpredictable due to its specialized mode of operation where each event carries unique complexities, different requirements and expectations to be met [4].

Off-premises catering is a diverse sector that provides hospitality services to various organizations and businesses through contractual arrangements and faces a wide range of operational challenges. In some cases, the provider may also be contracted to offer specific services to the public at a designated business location [5]. According to Warker [6], Businesses present unique challenges and opportunities. In the food service industry, off premises catering operations differ significantly from restaurants or cafeterias in terms of service delivery and operational dynamics. Despite these differences, certain managerial strategies and operational principles remain similar across these operations, therefore, examining key challenges associated with managing catering businesses can provide valuable insights for understanding and improving business operations [6]. The study identified logistical issues as the primary challenges in operating hospitality businesses globally [7]. Specifically, the authors highlighted planning and contingency management, staffing, environmental responsibility ("leave no trace"), and competition as key aspects influencing the management of off-premises catering. These challenges are often unavoidable, as serving large groups requires careful planning, coordination, and strategic management.

The performance of Off- premises catering is highly tied to physio environmental conditions of the event site [8]. Conditions such as the adequacy of equipment and utilities (power, potable water, sanitation), physical characteristics and accessibility of the venue (space, layout, topography, approach routes and wayfinding) and the reliability of inputs (food ingredients and other supplies), additionally, on site security and risk controls have an influence on success of off premises catering [9]. Physio environmental factors routinely affect guest comfort and service efficiency, increasing the likelihood of service interruptions, contamination risks, time wastage and equipment failure [9]. According to the Babich *et al.* [10], physio environmental determinants of off premises catering entail the availability and reliability of critical utilities in temporary outdoor settings. Public health and environmental health guidance for off premises catering, when well enhanced, ensure adequate portable water, backflow protected distribution and sufficient hand washing and sanitary facilities [4]. These factors directly condition safe preparations and service flow and staff productivity [11]. Similarly, power stability for maintaining hot foods, refrigeration, lighting and point of sale,

temporary kitchens are significant in service provision in offsite catering with limited fixed infrastructure [11]. Where hotels meet these specifications, service quality improves since there is minimal spoilage, reduced service delays and increased guest satisfaction [12].

According to Erol et al. [8], Physio – environmental factors also determines the reliability of inputs and supplies especially the availability of ingredients and last mile logistics. The availability of transport assets (such as refrigerated vehicles and insulated carriers) and on site storage (capacity of mobile refrigeration) reduces wastage and protects quality when there are high temperatures or in case of delays [1]. Security and crowd management infrastructure ensure better perimeter control, lighting and emergency response which affects productivity. This is evident in a study conducted in by [13], the study revealed that security measures at large events, including clear protocols, effective communication, and appropriate site infrastructure, contributed to higher guest satisfaction and fewer service disruptions. Similarly, integrating adequate security measures in off-premises catering events enhances operational reliability and service delivery [13]. According to Dopfer et al. [1], Physio-environmental factors influence customer satisfaction in off-premises catering through context-specific mechanisms. With regard to service quality, the attitude of delivery personnel and packaging quality were characterized as crucial factors in customer satisfaction and decision-making [11]. Additionally, service quality during both pre-event and live event phases were found to be crucial for creating memorable holistic food experiences, with the sensory dimension identified as being of greatest importance [1].

A study conducted by Thonon et al. [14], found that most of the catering services in sub-Saharan Africa failed to meet critical hygiene standards, hence contributed to food contamination and negatively impacted on customer satisfaction. This was equally echoed by Kupi & Bako. [11], where it was found that the temperature of delivered meals was positively related to customer satisfaction, with warm food associated with higher perceived quality. A study conducted on eighty-one off premises caterers in Botswana, revealed that Ambient conditions like scent, lighting, and temperature significantly impacted customer satisfaction in catering services in sub-Saharan Africa [15, 16]. Similarly, a study conducted by Frimpong [17] in Ghana revealed that Lighting was the most influential physical environmental elements affecting customer satisfaction in restaurants, these was after the study analyzed various elements that influenced the physical environmental such as aesthetic, ambience, lighting, layout, and table setting. Furthermore, a different study conducted in Ghana on the factors influencing diners' choices of traditional catering establishments, found that hygienic and cleanliness factors were critical in the selection of various hospitality establishments [18]. According to Fatoki [19], the adoption of green practices in off premises catering can enhance performance and service quality in African hospitality industries, hence ensuring customer retention.

In Kenya, a study conducted by Rotich et al. [20], on sixty off premises caterers in the country, on challenges faced by outside caterers revealed, that Hygiene practices, food handling processes, and personnel control of cross-contamination habits are significant physio-environmental factors affecting the performance and service quality of off-premises catering service providers in African hospitality and event industries. These were further collaborated by Kupi & Bako [11] who found that temperature for delivered meals were positively related to customer satisfaction, as foods served in their right temperatures were associated with higher perceived qualities. In the Kenyan context, event risk factors were found to be the most significant determinants of successful event delivery among service providers, compared to event administration and operational factors [21]. Furthermore, inadequate Strategic planning, specifically human resource practices and planning greatly impact performance of off premises catering, which may further translate to poor service quality and consumer dissatisfaction [22]. According to Wanjau et al. [23], service quality in public catering facilities such as hospitals is negatively influenced by several organizational constraints, including low employee capacity, inadequate technology adoption, ineffective communication channels, and insufficient financial resources.

Kupi et al. [11] observed that product variety, an active online presence featuring visible customer reviews, and the provision of contactless payment options significantly shaped customer decision-making. Together, these factors improved the overall customer experience by increasing convenience and ease of access. Bitange and Miricho, [24] demonstrated that service quality is a critical determinant of customer satisfaction in contract catering services during events held in public institutions such as universities, particularly when meals are served at the appropriate temperature, are appealing to the palate, and when a variety of menu options are available. From the foregoing, it is evident that physio-environmental factors have a significant influence on the off-premises catering industry in Kenya. Despite their importance, studies have shown that these factors are inadequately integrated into the planning and service delivery frameworks adopted by many service providers. This has been associated with increased customer complaints, reputational damage, inefficient use of resources, loss of customers, and reduced profitability among catering businesses [20, 25]. These findings highlight a significant gap in the recognition, integration, and management of physio-environmental factors during the planning and delivery of off-premises catering services. Therefore, the objective of the study was, to examine the degree to which physio-environmental factors influence the success of off-premises catering among three- and four-star hotels in Nairobi County Kenya. The study adopted a null hypothesis, H_{01} There is no significant relationship between physio-environmental factors and successful off-premises catering in selected hotels in Nairobi County Kenya. Study limitations included, confidentiality policies implemented by the selected three- and four-star ho-

tels, which restricted the sharing of certain operational information with the researcher. Consequently, access to some relevant data was limited, potentially constraining the depth of information obtained during the study.

2. Materials and Methods

2.1. Subject Selection and Recruitment

A mixed methodology study was conducted between December 2024 and February 2025 to ascertain, the impact of physio-environmental factors on Successful Off-Premises Catering in Selected Hotels in Nairobi. The study was conducted in Nairobi county, where a total of 15, three and four star rated hotels, which provided off premises catering participated in the study. In particular, eight three star hotels and seven four-star hotels as per tourism regulatory authority were involved in the study. The target population comprised of, hotel off premises customers, both banqueting and food and beverage managers and supervisors, and off-premises operational staff. A total of 505 respondents participated in the study, across both categories of hotels. The respondents comprised of 370 customers, 115 operative staff and 16 managers and supervisors. The study adopted purposive judgmental sampling both in the selection of 3 and 4 star hotels and also in the selection of particular section managers. This was achieved based on preliminary knowledge of the various three and four star hotels in Nairobi that actively participated in the provision of off premises catering services. Simple random sampling was used in the selection of particular customer respondents, where by hotels were requested for a list of their regular off premises customers, from the list the researcher selected every 5th customer on the list to participate in the study. The hotels notified their clients of the ongoing study and a questionnaire was emailed to the particular respondent, once filled they were emailed back to the researcher. With regards to the choice of section manager, the researcher equally had prior knowledge, of which hotel department had appropriate and adequate knowledge for the study under review. Further, the study adopted multistage sampling that was used in the selection of respondents. The first stage involved the stratification of management staff, (hotel managers and their deputies), hotel middle management, (Department heads and their supervisors), and lastly operational staffs who worked in the off premises sections. Systematic random sampling was used to select particular operative staff, where every third operative staff was given a questionnaire. The study adopted cluster sampling for the top management and supervisors, as it allowed the researcher to use the entire target population to constitute a sample. Questionnaires were used to collect data from operational staff while the interview schedules were used to collect data from top management and supervisors. Ethical approval was granted by the National Commission for Science, Technology and Innovation, (NACOSTI), permit Number, NACOSTI/P/1981086/28440. Participation in the study was totally

voluntary. Additionally, respondents were assured of anonymity and utmost confidentiality of any information provided.

2.2. Data Collection Tools

The study adopted both a questioner and an interview schedule, the questionnaires were chosen for the study as they gave the study an in-depth analysis, improved analytical rigor and objectivity, whereas interview schedules provided the study with flexibility, deeper and better understanding of respondents. A structured self-administered questionnaire was designed, to access the influence of physio- environmental factors on successful off premises catering. The questioner had a total of two sections; Section A, encapsulated demographic information of respondent, it contained questions such as age, gender, level of education, and category of job held by employee, is was to describe the study population and enable demographic-based analysis. Section B, consisted physio- environmental factors in off-premises catering, these constituted the main study variables. Section C, additional information, these was to provide respondents with an opportunity to give additional information and comments that could enrich the interpretation of the study findings. Equally, a structured, researcher administered interview schedule was developed for the study, it consisted of a total of three sections. Section A, captured demographic information of the respondents, whereas Section B captured, physio- environmental factors in off-premises catering, while, Section C, included additional information. Both the questioner and interview schedule validation was achieved, by the use two three and two four star hotels, in nairobi that were not involved in the study. A pilot study was conducted to pre-test both the questionnaire and the interview schedule using over 50 respondents drawn from employees of the four selected hotels. The pilot exercise aimed to assess the clarity, relevance, and suitability of the questions, as well as the appropriateness of the wording and the average time required to complete both

instruments. Based on the feedback obtained, the questionnaire and interview schedule were revised to improve their clarity, consistency, and overall effectiveness. Furthermore, a panel of experts comprising hospitality industry specialists and academic researchers reviewed both instruments and provided recommendations that informed their modification and enhancement, thereby strengthening their content validity and suitability for the study. Furthermore, SPSS was used for data analysis.

3. Results

3.1. Demographic Profile of the Customers

The study sought to establish the demographic characteristics of customers who participated in the study. As illustrated in [Table 1](#), of the 370 respondents who participated in the study, majority were female at 58% (215). With regards to age, a good majority of respondents 44.1% (163) were aged between 38-47, while the least 12.6 (47) were aged 57 and above. A notable majority of respondents 47.8 (177) had acquired diplomas as their highest qualification of education, closely followed by 40% (148) of the respondents who had attained bachelor degrees, the least number of respondents 5.2% (19) had attained certificates as their highest level of education. Slightly more than half of the respondents 54% (200) had been loyal to their current service provider for a period of between 1-5 years, while only 1% had been a loyal customer to their current outside caterer, for a period of 21-25 years. With regards to the type of outside catering events commonly held, majority 48.6% of the respondents (177) mentioned that they commonly held informal/social events, such as weddings and parties, while only 9% (38) frequently held public events such as festivals and sports events. [Table 1](#) below illustrates the findings.

Table 1. Demographic Profile of customers.

		Frequency	Percent (%)
Gender	Male	155	41.9%
	Female	215	58.1%
	Total	370	100%
Age	18-27 years	38	10.2%
	28-37 years	55	14.9%
	38-47 years	163	44.1%
	48-57 years	67	18.2%
	57 & above	47	12.6%
	Total	370	100%

		Frequency	Percent (%)
Highest Qualification	Certificate	19	5.2%
	Diploma	177	47.8%
	Bachelor's degree	148	40.0%
	Master's Degree	26	7.0%
	Total	370	100%
Number of years as a loyal Off premises client	0-5	200	54.0%
	6-10	115	31.0%
	10-15	44	11.9%
	16-20	8	2.1%
	21-25	3	1.0%
	Total	370	100%
Type of Event	Formal Events	155	42.4%
	Social Events	177	48.6%
	Public Events	38	9%
	Total	370	100%

Source: Field Data (2025)

3.2. Demographic Profile of the Staff

The study illustrated that a majority 52.2% (60) of the participants were female; in comparison to their male counterparts who stood at 47.8% (55). From the foregoing, it was evident that both male and female respondents were equally represented in the study. With regards to age a significant percentage of respondents 43.5% (50) were aged between 28 and

30 years of age, while a dismal percentage 0.87% (1) was aged 57 and above. Further, slightly above half of the respondents 52.2% (60) possessed certificates as their highest qualification, while a dismal percentage 0.9% (1) respondent possessed a post graduate degree. Notably, a significant percentage of respondents 46% (54) had acquired 6-15 years of work experience, while a hand full of employees 2.6% (3) had work experience that span between 21-25 years. Table 2 below illustrates the findings.

Table 2. Demographic Profile of Staff.

		Frequency	Percent (%)
Gender	male	60	52.2%
	female	55	47.8%
	Total	115	100%
Age	18-27 years	41	35.7%
	28-37 years	50	43.5%
	38-47 years	19	16.5%
	48-57 years	4	3.5%
	57 & above	1	0.87%
	Total	115	100%
Highest Qualification	Certificate	5	4.3%

		Frequency	Percent (%)
Years of Experience	Diploma	60	52.2%
	Bachelor's degree	49	42.6%
	Master's Degree	1	0.9%
	Total	115	100%
	0-5	52	45.2%
	6-10	27	23.5%
	10-15	27	23.3%
	16-20	6	5.2%
	21-25	3	2.6%
	Total	115	100%

Source: Field Data (2025)

3.3. Demographic Characteristics of the Interviewed Respondents

A total of 14 managers and 2 supervisors were interviewed. As illustrated in Table 3, a total of 6 food and beverage managers, 4 banquet managers, 3 restaurant managers and 2 banquet supervisors participated in the study. Out of the 16 respondents, a significant majority 75% (12) were male while

25% (4) were female. A good majority of the respondents, possessed either a diploma or an advanced diploma as their highest form of education, while only 6.3% (1) possessed a masters as their highest form of education. With regards to the years of experience, slightly above half of the respondents 56.2% (9), had a work experience that ranged between, 6 to 10 years, while only 6.3% (1) respondents had a work experience that ranged between, 1 to 5 years and 15 to 20 years.

Table 3. Demographic Characteristics of the Hotel Managers and Supervisors Interviewed.

Cases and Level of Hotel	Staff Positions	Gender	Education Level	Off-premises catering knowledge	Years of Experience
Case 1 Hotel A (Four star)	Food and Beverage Manager	Male	Master's Degree	Excellent	10-15
	Banquet Manager	Female	Bachelor's Degree	Excellent	6-10
Case 2 Hotel B (Four star)	Ass. Food and Beverage Manager	Male	Bachelor's Degree	Excellent	6-10
	Restaurants Manager	Male	Diploma	Excellent	6-10
Case 3 Hotel C (Four star)	Banquet Manager	Male	Advance Diploma	Excellent	6-10
	Events and Banquet Supervisor	Female	Bachelor's Degree	Excellent	1-5
Case 4 Hotel D (Four star)	Food and Beverage Manager	Female	Bachelor's Degree	Excellent	10-15
	Restaurant Manager	Male	Bachelor's Degree	Excellent	6-10
Case 5 Hotel E (Three star)	Food and Beverage Manager	Male	Bachelor's Degree	Excellent	10-15
	Banquet and Events Manager	Male	Diploma	Excellent	6-10
Case 6 Hotel F (Three star)	Food and Beverage Manager	Male	Bachelor's Degree	Excellent	10-15
	Restaurant Manager	Male	Advance Diploma	Excellent	6-10
Case 7 Hotel G (Three star)	Food and Beverage Manager	Male	Bachelor's Degree	Excellent	15-20
	Banquets Manager	Male	Bachelor's Degree	Excellent	6-10
Case 8 Hotel H (Three star)	Food and Beverage Manager	Male	Bachelor's Degree	Excellent	10-15
	Banquet supervisor	Female	Bachelor's Degree	Excellent	6-10

Source: Interview Data (2025)

3.4. Physio-Environmental Factors and Its Influence On Successful Off-Premises Catering in Selected Hotels in Nairobi

The study sort to establish the extent to which physio-environmental factors influenced service delivery of off-premises catering among customers. According to Table 3, 40.9% (150) and 32.2% (119) of the respondents were neutral and slightly agreed that adequate catering equipment was provided by the hotel during off-premises catering events respectively. Majority of the respondents, 42.6% (158) indicated that the off premises caterer ensured sufficient ingredients and supplies were made available during off-premises catering events. Further, slightly above half of the respondents 54% (199) were neutral about the adequate use of directions and signage to and within particular event venues, despite these, 34% (126) were in agreement. Based on the findings, only 27.8% (98) of the respondents agreed and strongly agreed to the fact that service providers ensured adequate space was provided to accommodate the catering operations and guest requirements. Additionally, an over whelming majority of respondents, 83% (305) of the respondents were of the opinion that hotels provided adequate security arrangements at the event venue. With regards to the provision of adequate portable water during events, a

respectable majority, 56.1% (170) of the respondents were in agreement that hotels ensured adequate portable water was available. From the findings, 55.7% (206) of the respondents were in agreement that hotels ensured that stable and reliable power supply was always available at the event venues. Furthermore, a good majority of respondents 43.5% (160) were in agreement that hotels always ensured sufficient sanitation and hand-washing facilities were provided on site, despite these slightly above half of the respondents 53% (196) were neutral. In addition, less than half of the respondents 40% (148) agreed and strongly agreed that service providers ensured adequate waste disposal facilities were adequately available at the event venue. From the results as documented in Table 3, 73.9% (273) of the respondents were in agreement that hotels provided adequate lighting and decor during evening or night events. Moreover, a mere 36.5% (135) the respondents were in agreement that hotels ensured that refrigerated transportation was availed whenever required. Also notable was that, half of the respondents 50% (177) were in agreement that service providers provided on-site storage facilities (e.g., mobile refrigeration units) were availed for the storage of perishable items. Slightly below half of the respondents 44.3% (164) were in agreement that hotel ensured adequate availability of tents, tables, and chairs were availed during catering service.

Table 4. Adequacy of Hotel services across Physio-Environmental Factors affecting Customers.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The hotel provides Adequate catering equipment for off-premises events.	0 (0.0%)	26 (7.0%)	150 (40.9%)	119 (32.2%)	74 (20.0%)
The hotel ensures sufficient ingredients and supplies are accessible for off-premises catering.	0 (0.0%)	26 (7.0%)	128 (34.8%)	158 (42.6%)	58 (15.7%)
Clear directions and signage to the event venue were provided.	0 (0.0%)	26 (7.0%)	199 (53.9%)	126 (33.9%)	19 (5.2%)
The hotel ensured adequate space was provided to accommodate catering operations and guest requirements.	0 (0.0%)	15 (3.5%)	254 (68.7%)	37 (10.4%)	64 (17.4%)
The hotel ensured security at the event venue.	0 (0.0%)	7 (1.7%)	58 (15.7%)	250 (67.8%)	55 (14.8%)
The hotel ensured adequate portable water was available at the event site.	0 (0.0%)	16 (4.3%)	184 (49.6%)	119 (32.2%)	51 (13.9%)
The hotel made sure stable and reliable power supply was available at the venue.	0 (0.0%)	26 (7.0%)	138 (37.4%)	129 (34.8%)	77 (20.9%)
The hotel ensured sufficient sanitation and hand-washing facilities were provided on site.	0 (0.0%)	14 (3.5%)	196 (53.0%)	96 (26.1%)	64 (17.4%)
The hotel ensured appropriate waste disposal facilities were available at the venue.	0 (0.0%)	0 (0.0%)	222 (60.0%)	96 (26.1%)	52 (13.9%)
The hotel provided adequate lighting and decor for evening or night events.	0 (0.0%)	39 (10.4%)	58 (15.7%)	209 (56.5%)	64 (17.4%)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The hotel provided refrigerated transport when necessary.	14 (3.5%)	10 (2.6%)	211 (57.4%)	45 (12.2%)	90 (24.3%)
The hotel provided on-site storage facilities (e.g., mobile refrigeration units) when required for perishable items.	32 (8.7%)	3 (0.9%)	158 (42.6%)	90 (24.3%)	87 (23.5%)
The hotel provided adequate tents, tables, and chairs were available for catering services when required.	68 (18.3%)	58 (15.7%)	80 (21.7%)	125 (33.9%)	39 (10.4%)

Source: Field Data (2025)

The overall success of off premises catering across Physio-Environmental factors affecting customers was determined. This was achieved through the aggregation of Likert scale statements in Table 4 using the mean. Scores that exceeded 3.5 implied that physio-environmental factors were adequate while scores between 2.5 but less than 3.5 implied moderately adequate physio-environmental factors and scores below 2.5

implied inadequate physio-environmental factors. According to the results in Table 5, 81.7% (94) of the respondents were of the opinion that physio-environmental factors were moderate and adequately considered in off-premises catering. The mean of 3.86 (standard deviation = 0.38) further affirms these findings. Results are as documented in Table 5.

Table 5. Overall Status of Physio-Environmental Factors.

		Count	Column N %
Status of physio-environmental factors	Inadequate	0	0.0%
	Moderately Adequate	94	81.7%
	Adequate	21	18.3%
Mean = 3.86 (standard deviation = 0.38)			

Source: Field Data (2025)

The study further sort to establish hotel staff perspective on the influence of physio-environmental factors on successful off premises catering.

Table 6. Likert Scale Responses on the Influence of Physio-Environmental Factors on Off-Premises Catering.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Provision of adequate off-premises event equipment facilitates a successful outcome.	71 (61.7%)	39 (33.9%)	4 (3.5%)	1 (0.9%)	0 (0.0%)
Provision of adequate ingredients will significantly impact the outcome of an off-premises catering event.	58 (50.4%)	46 (40.0%)	5 (4.3%)	6 (5.2%)	0 (0.0%)
Clearly stated directions and signage to and within any off-premises catering venue leads to better performance and a successful event.	61 (53.0%)	33 (28.7%)	18 (15.7%)	3 (2.6%)	0 (0.0%)
The physical location and accessibility of an off-premises event facilitates its success.	46 (40.0%)	34 (29.6%)	19 (16.5%)	14 (12.2%)	2 (1.7%)
The topography of the event grounds will positively impact the success and the outcome of off-premises catering event.	42 (36.5%)	35 (30.4%)	24 (20.9%)	12 (10.4%)	2 (1.7%)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Advance familiarization of off-premises site enhances success of off-premises catering.	69 (60.0%)	34 (29.6%)	7 (6.1%)	5 (4.3%)	0 (0.0%)
Provision of adequate space and host wish will impact the outcome of off-premises event.	33 (28.7%)	57 (49.6%)	18 (15.7%)	5 (4.3%)	2 (1.7%)
Provision of adequate Security during an off premises event leads to a more successful outcome.	51 (44.3%)	28 (24.3%)	15 (13.0%)	13 (11.3%)	8 (7.0%)
Compatibility of the available resources with the caterer's equipment's positively affects the outcome of off-premises catering	48 (41.7%)	37 (32.2%)	15 (13.0%)	11 (9.6%)	4 (3.5%)

Source: Field Data (2025)

The study further sort to establish hotel staff perspective on the influence of physio-environmental factors on successful off premises catering. According to Table 6, an over whelming majority of respondents 96% (110) agreed to the fact that adequate provision of off premises catering equipment facilitated a successful outcome of an off premises event. The influence of adequacy of off-premises equipment on catering was also evident from the interviews. The following claim by Manager G1 (iv) is two sided, one showing the positive effect of adequate equipment and secondly showing the negative effect of inadequate equipment:

"To ensure that the flow of services is not compromised, we carry sufficient equipment such as ovens, hot boxes and portable refrigerators"

Manager G1 (v) further added the following:

"The moment we have miscalculated and carried insufficient equipment, service provision will be compromised. Unlike in-house events, there is no main kitchen to run back to. We have even had to borrow some substandard equipment from our clients leading to poor service provision"

The importance of equipment adequacy was also notable from the following response by Supervisor C2 (v):

"We ensure there is enough equipment on site. Not just enough for the service provision, but also as back-up to avoid breakdowns and disruption of services on-site. This helps minimize delays and enhance client satisfaction"

Additionally, a significant majority of respondents 90% (104) were in agreement that adequate provision of ingredients significantly impact the outcome of an off premises catering event. Further emphasis was found from the interview outcomes. This was evident from the following response by Manager D2 (iv):

"We carry enough ingredients to ensure that service delivery is not compromised. This ensures we deliver to clients as expected, thus creating memorable experiences for customers"

For Manager A1 (i), the importance of having ingredients in adequacy and the right quality is emphasized from the following response:

"When planning for ingredients, we include a margin for unexpected client demands. We also ensure quality through the last-mile logistics, which includes provision of services as refrigerated vans and insulated carriers, which ensure ingredients/food freshness. These ensure the provision of is of high quality food leading to guest satisfaction"

Slightly above half of the respondents 53% (61) Strongly agreed that clearly stated directions and signage to and within an off premises catering event significantly impacts on the performance and success of the particular event. Clear directions to the venue was also cited as an influence of successful off-premises catering by interviewed managers and supervisors. This was shown by the following statement from Manager F1 (ii):

"Offering clear directions ensures our staffs arrive early and do not get lost. This provides adequate setup time and enhances punctuality. This makes sure catering services are delivered in a timely manner"

Supervisor G1 (i) was of the following opinion on offering directions to the venue:

"We ensure that event signage offers precise direction to the venue. This is further strengthened with coordination with security at the venue to reduce confusion and speed up setup"

With regards to the physical location and accessibility of a particular off premises catering event, a good majority of respondents 70% (80) were in agreement that physical location and accessibility played a significant role in the success of a particular event. From the study findings, 67% (76) were in agreement that the nature of topography or prior knowledge of an event's topography has a positive impact on performance and success of an off premises catering event. This was also emphasized from the interviews with the respondents being in agreement on the importance of the event terrain to off-premises catering. For instance, Manager H1 (v) opined the following:

"Some sites look appealing to the client but are a nightmare for off-premises catering; steep slopes, muddy fields or insufficient drainage complicate catering services provision"

Manager H1 (iii) further added the following:

"Sloppy or uneven grounds complicate tent setup, food safety and comfort of the guests"

For Supervisor H2 (ii), physical location and topography influence off-premises catering as indicated in the following comment:

"Moving equipment across uneven terrain strains staff and increases the risk of breakage of equipment and the spoilage of ingredients. Which may compromise service delivery"

For Manager E2 (iii), topography plays a significant role as notable from the following comment:

"Service provision in off-premises catering is compromised by unstable grounds which endangers staff safety. Service staff find it difficult to carry heavy trays up steep gradients which leads to delayed service delivery. We have even had incidences where vehicles couldn't access an event site resulting in logistical challenges and delays in serving our guests"

In addition, advance familiarization of a particular off premises event site was Convincingly supported with a majority of respondents, 60.0% (69) strongly agreeing and 29.6% (34) agreeing to the fact that, advance familiarization of a particular off premises event site greatly impacted on the success of a particular event. Interview responses, portrayed similar findings that prior awareness enhanced preparedness and catering event success. These was evident from the following claim by Manager B2 (i):

"We never commit to an off-premises event without a familiarization visit. This allows us to plan for utilities such as water, power, parking and emergency exits"

Manager G2 (iv) emphasizes on the need for site familiarization for event success based on the following comment:

"Prior visit to the event site allows us identify the facilities available at the site and the outlook of the site. This helps us plan for the event on aspects such as equipment positioning in advance"

Moreover, a significant majority of respondents 70% (90), collectively agreed and strongly agreed that the provision of adequate space and the fulfilment of guest wishes such as adequate lighting and décor, greatly impacted the outcome and success of a particular event. Interview finding equally demonstrated similar results. Response from Manager F noted the importance of managing the conflict between client expectation and actual site capacity for a successful event:

"Clients often emphasize on elaborate décor and large set-ups in spaces that are too small. To ensure a successful event, we negotiate with the clients for realistic layouts"

Supervisor C2 (iii), insisted on the importance of space adequacy based on the following response:

"Cramped spaces reduce the efficiency of staff movement. Risks of accidents may also be raised compromising the entire event"

Furthermore, a respectable majority of respondents 68% (79) agreed to the fact that the adequate provision of security to an off premises event significantly impacts on the success of the event. The role played by security was also underscored in the interviews. For example, Manager E1 (iii), was of the

following opinion:

"Security is not just about guarding the guests but also about protecting catering equipment during transit and on the site. Security of our staff is also paramount. Security guarantees appropriate equipment is at the site and staffs operate with no fear which increases the efficiency of services"

Manager D2 (i), recalls when security threatened the success of off-premises catering based on the following comment:

"I recall an event where inadequate security delayed entry into the venue. In fact, some guest left before the event had even begun. This left us with a lot of food left overs; tents were unutilized. We felt the whole process was failed by security challenges"

Manager B2 (iii), claimed the following on the influence of security on off-premises catering success:

"Security failures lead to theft of supplies and equipment. This may result to a below par service delivery"

With regards to, the compatibility of available resources with caterer's equipment, a significant majority of the respondents 74% (85) collectively agreed and strongly agreed to the fact that, successful compatibility of available resources to caterer's equipment had a positive impact to the overall success of the event. Similar findings were obtained from conducted interview. Manager D2 (iv), supports this by the following claim:

"Sometimes, venues have power points that do not match our appliances. This disrupts our services"

Manager D2 (v), further added the following:

"Sometimes water sources may not meet required standards. Th1 1 is may negatively affect operations; as mineral rich water may render equipment dysfunctional. Such water sources make cleaning of equipment extremely difficult"

Supervisor H2 (i), service disruption arises from compatibility issues as notable from the following response:

"When compatibility issues arise, our staff are forced to improvise. This slows services and creates unnecessary stress"

3.5. Regression Model Between Physio-Environmental Factors and Success of Off-Premises Catering

The study sought to establish whether *Physio-Environmental Factors* had an influence on the success of off-premises catering services. Simple regression analysis was conducted to test the contribution of these factors. The regression analysis results on model summary show that the model produced a *moderately strong relationship* between the independent variables and the dependent variable. The results show an $R = 0.771$, indicating a strong positive association. The value of $R\text{-Squared} = 0.594$ indicating that the model explains 59.4% ($R^2 = 0.594$) of the variance in the success of off-premises catering (see Table 7). This implies that more than half of the variation in catering success can be attributed to the effects of physio-environmental factors.

Table 7. Regression Model Summary for Regression between Physio-Environmental Factors and Off-Premises catering Success.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771 ^a	.594	.549	.04638

a. Predictors: (Constant), Physio-environmental factors

Source: Field Data (2025)

From the ANOVA results in Table 8, $F(1,113) = 6.726$, $p = 0.011$. This indicates that the overall regression model is statistically significant. This confirms that physio-environmental factors have a meaningful impact on the success of off-

premises catering services. A suggestion that consideration of physio-environmental factors is crucial for successful catering outcomes.

Table 8. ANOVA Results for Regression between Physio-Environmental Factors and Off-Premises catering Success.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.520	1	1.520	6.726	.011 ^b
	Residual	25.538	113	.226		
	Total	27.058	114			

a. Dependent Variable: Success of Off-Premises Catering

b. Predictors: (Constant), Physio-environmental factors

Source: Field Data (2025)

The regression coefficients result in Table 9 reveal that physio-environmental factors ($\beta = .298$, $t = 3.712$, $p < .00401$) have a strong and significant influence on off-premises catering success.

Table 9. Regression Coefficients for Regression between Physio-Environmental Factors and Off-Premises catering Success.

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	3.511	.601			5.009	.000
	Physio-environmental factors	.298	.108	.296		3.712	.000

a. Dependent Variable: Success of Off-Premises Catering

Source: Field Data (2025)

The regression analysis indicates that *physio-environmental factors significantly influence the success of off-premises catering*. Therefore, the null hypothesis that H_{01} : There is no significant relationship between physio-environmental factors and successful off-premises catering in selected hotels in Nairobi Kenya is rejected. This means that there is a significant relationship between Physio-environmental factors and the

success of off-premises catering in three- and four-star hotels in Nairobi County-Kenya. Since the regression coefficient is positive, it is therefore concluded that physio-environmental factors have a significant positive influence on the success of off-premises catering among selected star rated hotels in Nairobi. The regression model for predicting the success of off-premises catering from physio-environmental factors can

therefore be presented as:

Success of Off-Premises Catering = $3.511 + 0.298$ Physio-Environmental Factors.

4. Discussion

Physio-environmental factors such as provision of adequate off-premises event equipment, adequate ingredients, clear stated direction to the event site, physical location of the site, topography of the grounds, advanced familiarization with the site, space availability, security and compatibility of the event site resources with the caterer's equipment affect the success of off-premises catering. These findings concur with a report by Roy and Zeybek [25] which noted that physio-environmental determinants of off-premises catering entail the availability and reliability of critical utilities in temporary outdoor settings. The report claimed that these factors lead to off-premises catering success since they condition safe preparations and service flow and staff productivity. The findings are also in agreement with Phillips et al. [26] who found that availability of utilities such as stable power supply is significant in provision of services in off-premises catering. When power supply is stable, the caterer has the capacity to maintain hot food, offer refrigerated services, lighting and temporary kitchens which ensure high quality of services. The study finding also went hand in hand with [27, 28], who stated, appropriate equipment is fundamental to the success of event operations, as it supports food safety, preserves product quality during transit, and promotes efficient service delivery. They further articulated that, catering systems and equipment's constituted a vital element of operational effectiveness, significantly shaping service performance and overall customer satisfaction.

The physical characteristics of the venue also play a major role in service quality in off-premises catering. This is because proper selection of the venue in terms of location and topography lessen the burden of logistics management which drive quality execution in off-premises catering [29]. The findings that topography of the event site has an influence on the success of off-premises catering agrees with Mair et al. [9] who discussed topography in terms of sloppiness, surface evenness and exposure to extreme weather conditions and found them to affect operational sequences. Poor topography such as unevenly or poorly drained grounds complicate service provision such as tenting, leveling of cooking equipment, safe staff movement and also elevate contamination risk of foods and beverages [9]. On the contrary, Moorman [30] opines that, accessibility within event environments are shaped not only by physical features such as terrain, but also by infrastructure, planning, and management systems that enable or restrict participation. Poorly designed or uneven terrain may hinder mobility, particularly for vulnerable groups, thereby negatively affecting inclusivity and overall experience. Similar sentiments were also echoed by Behmanesh and Brown [31] who stated that, Event success is generally understood as a multi-

dimensional concept shaped by a range of experiential, operational, and environmental factors rather than any single physical element. According to Behmanesh et al. [32], The physical characteristics of event spaces, including terrain and layout, influence movement, accessibility, and event design; however, these factors are often overlooked during planning, leading to inefficiencies and reduced effectiveness of implementation.

A case study by Senter *et al.* [13] also supports the findings of this study by emphasizing on the role of security in the success of off-premises catering. When there are clear security protocols, communication and site-appropriate infrastructure there is less disruption of services and increased satisfaction of guests. Integration of security measures in off-premises catering events ensures reliability in catering [13]. Study findings also emulate the sentiments of, Jamshidi et al. [33], as they stipulate that, Clear directions and well-designed signage play a critical role in the success of off-premises catering events by enhancing wayfinding and ensuring efficient movement within venues. Signage provides essential visual cues that guide guests, reduce cognitive load, and improve navigation in unfamiliar environments [34]. The study outcome equally echoed those of, [30] and [35], with whom it was discovered that, Effective event signage helped activities run smoothly by guiding guests clearly, reducing confusion, enhancing safety, and improving the overall experience of attendees

The study brought to light the relevance of adequate provision of portable water, sanitation and hand washing facilities in successful off premises catering events. Similar finding were echoed by Abuye [36] where it was discovered that, Sufficient water, sanitation, and hygiene (WASH) facilities were essential in ensuring food safety and minimizing contamination in catering operations. Proper hygiene and sanitation practices played a key role in lowering the risks of foodborne illnesses and were vital throughout all stages of food handling. Similar finding was also observed by Rosales [37], where it was established that, handwashing and hygiene practices largely depended on user behavior and availability of facilities, and may be limited in environments where access to water and soap is inconsistent. On the contrary, Abah et al. [38], revealed that, WASH interventions at off premises events, may not be sufficient to achieve desired outcomes unless they are implemented alongside broader systemic and behavioral factors, such as compliance, infrastructure reliability, and user practices.

With regards to the physical location and accessibility of an off premises event, both guest and staff indicated that it was a vital element for the success of off premises catering. Similar sentiments were also portrayed by Hood [39], he opines that, the location of an event venue in terms of its location and accessibility is a key consideration, as it affects attendance, timeliness, and overall guest satisfaction. Venues that are easily accessible tend to encourage higher participation and help minimize logistical difficulties for attendees. Despite these,

event success has been found to be multidimensional. It cannot be attributed solely to physical location. Factors such as interaction quality, service delivery, and the overall event experience have been shown to significantly influence attendee satisfaction and behavioral intentions, including repeat attendance and recommendations [40]. Similar findings have also been demonstrated by, Shuvalova [41], despite accessibility contributing positive perceptions, it represents only one component of a broader event system that includes communication, staff competence, and service design. Events that fail to deliver high-quality experiences may still perform poorly even when located in highly accessible venues. According to Cernigliaro [42], accessibility and infrastructure are widely recognized as core criteria in event destination selection, alongside safety, accommodation, and local support, all of which contribute to event success.

The study established that appropriate waste disposal facilities played a significant role in the success of off premises catering, similar sentiment were opined by Hariharan and Vetrivel [43] where found that, Provision of appropriate waste disposal facilities is essential for the maintenance of hygiene and food safety in catering settings, as it helps in the prevention of contamination, pests, and environmental risks, while supporting safe food handling and quality service. Likewise, similar findings were echoed by Mbokazi [44], where he stated that effective waste management is widely recognized as a key operational requirement in the hospitality and catering industry, contributing to sustainability, efficiency, and overall business performance. On the contrary, effective waste management is often constrained by factors such as lack of awareness, inadequate infrastructure utilization, financial limitations, and weak regulatory compliance, suggesting that simply providing facilities does not ensure their effective use [44]. Additionally, poor waste handling in catering settings despite the availability of disposal facilities, may lead to contamination, pest problems, and food safety risks, as well as environmental and health concerns, hence effective waste management depends not only on infrastructure but also on proper practices and responsible user behavior [45, 46]. According to Ali et al. [47] poor hygiene and inadequate waste handling are among the major challenges in catering operations, reinforcing the importance of proper waste disposal facilities in preventing contamination and ensuring safe food service.

The findings from the regression model are in agreement with Mair et al. [9] who established that off-premises catering performance is highly tied to physio-environmental conditions at the event site. Mair et al. [9] cited conditions such as adequacy of equipment and utilities such as power supply, portable water and sanitation, venue accessibility, physical characteristics and inputs reliability (supplies), on-site security and risk controls to influence the success of off-premises catering. The study by Mair et al. [9] further established that physio-environmental factors have an effect on guest comfort and ser-

vice continuity, increasing the likelihood of service interruptions, contamination risks, time wastage and equipment failure. The study outcome is similar to that of Han and Ryu, [48], where they found that, Physio-environmental factors significantly influence the success of off-premises catering events by shaping how customers perceive and experience the service. Elements such as layout, ambience, and facilities act as visible cues of quality and affect both customers' emotions and perceptions, ultimately influencing their satisfaction and behavior. According to Shi [49], the physical environment is a key determinate of overall service quality, alongside product and service delivery factors, indicating a substantial contribution to the overall event outcome. Additionally, ambient conditions and well-designed service environments play a key role in shaping participants' experiences and their perceptions of overall event quality, [50]. On the contrary, Empirical studies indicate that event quality is multidimensional, comprising several interrelated factors, which suggests that no single category of variables, including physio-environmental conditions, can solely account for event success [51]. Similar sentiments were also echoed by Li et al. [52], where he highlights, that service quality plays a more direct and significant role in determining customer satisfaction and overall success, influencing repeat patronage and perceived value more strongly than physical conditions alone. Further, according to, Zhubi et al. [53] after carrying out research on practical event management, found that successful events depend on a range of elements such as food quality, staff coordination, ambience, and entertainment, further emphasizing the complexity and multidimensional nature of event success.

5. Conclusion

The findings from the foregoing study indicate that, physio environmental factors have a profound influence on successful off premises catering. Factors such as; Food safety, availability of adequate staff, weather, location and infrastructure, dietary requirement of guests and transportation and logistics, have a significant impact on the success of off premises catering. The findings depict a disparity between what the hotels offer customers and customer expectation. This is evident as, despite both operational staff and managers try to bolster and enhance service provision to their clients so as to ensure satisfaction, customers on the other hand are not adequately satisfied as their levels of satisfaction were registered as moderate. Off premises caterers, should invest more in market researches so as to fully comprehend what off premises customers prefer.

Author Contributions

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Conflicts of Interest

The authors declare no conflict of interest.

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