

# A Conceptual Model of School Canteen Profile, Food Service Attribute on Student's Satisfaction: Basis for Compliance for Promoting Healthier Eating Habits

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**Abstract**—The study is mainly focused on the conceptual model of the school canteen profile, food service attribute on students' satisfactions as basis for compliance for promoting healthier eating habits. Specifically, it aimed to determine the status of the school canteen profile in terms of menu variety, nutritional focus, no. of food served, and food cost; level of food service attributes in terms of cleanliness, service efficiency, friendliness, and food appearance; extent of students' satisfaction in terms of reasonable price, food quality, beverage quality, food variety, service quality, and ambiance. Additionally, the study looked into the important correlation between the characteristics of the school canteen, the quality of the food service, and how pleased the students were. The major relationship between the two variables was established using a correlational approach. Los Baños Senior High School served as the location for the investigation. The 30% of the total population served as the main respondents of the study, they are the grade 11 and 12 students. Survey questionnaire was used to gather the data and interpreted using Frequency, Percentage, Mean, Standard Deviation and Pearson-r. Findings revealed that the school canteen was profile menu variety is very good, the nutritional focus is excellent, and the food is affordable, however, the number of foods served is insufficient. In addition, the quality of food service factors such hygiene, service effectiveness, staff friendliness, and food presentation is quite excellent. Likewise, extent of students' satisfaction showed very high interpretation as to reasonable price, food quality, beverage quality, food variety, service quality, and ambiance. The study came to the conclusion that students' happiness is strongly influenced by the school canteen profile and the quality of food service characteristics. Therefore, the null hypothesis is rejected. Based from the drawn conclusions, it is highly recommended that the school canteen management may maintain offering diverse foods but offer the increase of the number of food options. School may invite nearby schools for benchmarking, and continue improve the taste of the food. Future researchers may conduct study comparing canteen profiles and students' satisfaction across different type of schools.

## I. INTRODUCTION

The promotion of healthy eating habits among students is of paramount importance, and the role of school canteens in fostering such habits is central to this endeavor. This research project is dedicated to a comprehensive examination of school-based canteen management practices, student satisfaction with these facilities, and their adherence to dietary guidelines, particularly the Pinggang Pinoy framework. The study is centered on Senior High Schools under the purview of the Los Banos Sub-office of the Department of Education (DepEd), with regulatory guidance derived from DepEd Order

No. 8, series of 2007, and DepEd Order No. 13, series of 2017, which provide the legal framework for canteen management practices.

In a climate where the well-being and nutritional health of students are subjects of pronounced concern, educational institutions bear a particular responsibility to ensure that their canteen services harmonize with established dietary guidelines. The "Pinggang Pinoy" framework, conceived by the Food and Nutrition Research Institute (FNRI) of the Department of Science and Technology, offers an invaluable resource for guiding individuals toward balanced and nutritious dietary practices. By conforming to Pinggang Pinoy's principles, which emphasize prudent portion sizes and the inclusion of a diversified array of food groups, school canteens become pivotal agents in nurturing healthier eating choices among students.

Recent scholarly contributions, exemplified by the research of Licudan and Caballes (2023), have brought to light the intricate and multifaceted factors that influence student satisfaction with school canteen operations. These influences may exhibit considerable variance contingent upon the diverse demographics, cultural backgrounds, and personal preferences of students. Canteen operators are urged to adopt a nuanced approach, considering these varied factors when devising strategies to enhance student satisfaction and advance the cause of healthy eating habits. The need for a more in-depth inquiry to unravel the intricate dynamics at play is evident.

This research project endeavors to elucidate the multifaceted dynamics within school canteens, contributing to the ongoing efforts to enhance the quality of canteen services and promote healthier dietary practices among students. Furthermore, it is anticipated that this study will serve as a foundational knowledge base for future researchers, inspiring them to undertake more extensive and profound inquiries to corroborate and expand upon the findings of this investigation.

### 1.1 Statement of the Problem

#### *Problem/s which were addressed by the research*

The main purpose of the study is to determine the conceptual model of school canteen profile, food service attribute on students' satisfaction basis for compliance for promoting healthier eating habits.

Specifically, the student sought to answer to the following questions:

1. What is the school canteen profile in terms of:
  - 1.1 Menu variety;
  - 1.2 Nutritional focus;
  - 1.3 No. of food served;
  - 1.4 Food cost?
2. What is the level of food service attribute in the school canteen in terms of:
  - 2.1 Cleanliness;
  - 2.2 Service efficiency;
  - 2.3 Friendliness;
  - 2.4 Food appearance?
3. What is the extent of student's satisfaction offer in the school canteen in terms of:
  - 3.1 Reasonable price;
  - 3.2 Food quality;
  - 3.3 Beverage quality;
  - 3.4 Food variety;
  - 3.5 Service quality;
  - 3.6 Ambiance?
4. Do students' satisfaction offers in the school cafeteria have a strong correlation with the profile of the cafeteria?
5. Is there a significant relationship between food service attributes and students' satisfaction offer in the school canteen?

## II. METHODOLOGY

The important link between the two variables was discovered using a correlational approach. Los Banos Senior High School served as the location for the research. The 30% of the total population served as the main respondents of the study, they are the grade 11 and 12 students. Survey questionnaire was used to gather the data and interpreted using Frequency, Percentage, Mean, Standard Deviation and Pearson-r.

## III. RESULTS AND DISCUSSION

This chapter presents the data collected, providing a comprehensive analysis and perceptive interpretation to address problem regarding on the relationship between the school canteen profile and students' satisfaction; food service attributes and students' satisfaction.

The primary objective of this study was to determine the status level of school canteen profile, food service attributes, and students' satisfaction. Also, it determined the relationship between the school canteen profile and students' satisfaction; food service attributes and students' satisfaction.

The main respondents of this study were the 188 grade 11 and 12 students from Los Banos Senior High School. They were chosen from the 30% of the total population of the students. Through the statistical analysis and detailed descriptions, it has shown whether there is or no significant relationship between the two variables mentioned.

The validity and robustness of the findings presented in this study were enhanced by a comprehensive review and incorporation of pertinent literature and other related research.

### Status of School Canteen Profile

In this study, School Canteen Profile were described in terms of menu variety, nutritional focus, number of foods serve and

food cost and was determined by the frequency, percentage, mean and standard deviation.

TABLE 1. School Canteen Profile in terms of Menu Variety

Rating	Frequency	Percentage	Descriptive Value
5	54	29%	Excellent
4	60	32%	Very Good
3	62	33%	Good
2	9	5%	Fair
1	3	2%	Poor
Mean	3.81		
SD	0.96		
Descriptive Value	Very Good		

As presented in Table 1, the school canteen profile in terms of menu variety. Most of the ratings were concentrated in the higher level resulting to a very good status as it obtained the mean rating of 3.81 and a standard deviation of 0.96 confirming that there is an above average variety of menu. This suggests that the school canteen offers a wide variety of meal choices that cater to the demands of the students.

The aforementioned data that menu diversity is one of the meal traits that attracts customers to a restaurant/cafeteria was supported by Ismail et al. (2019) in their literature. The literature has discussed the menu diversity for decades because of its significant role in producing revenue for the restaurant/cafeteria.

In the study conducted by Lee (2019), it has shown his support consistently demonstrates the importance of menu diversity in student satisfaction with school food services. A wide array of choices increases the likelihood that students will find appealing options, leading to greater overall contentment with the canteen.

TABLE 2. School Canteen Profile in terms of Nutritional Focus

Rating	Frequency	Percentage	Descriptive Value
5	45	24%	Very Healthy
4	90	48%	Healthy
3	42	22%	Neutral
2	9	5%	Unhealthy
1	2	1%	Very Unhealthy
Mean	Healthy		
SD	0.86		
Descriptive Value	Excellent		

As presented in Table 2, the students show excellent status of the school canteen profile in terms of its nutritional focus of the foods being served. Majority of the students perceive the school canteen's nutritional focus as healthy (48%) or very healthy (24%). This indicates that students are satisfied with the nutritional focus served by the school canteen.

According to Matela et al. (2022), since students usually spend about 8 hours a day at school. The school food environment and the presence or absence of school-based nutrition policies profusely influence their food selection during school hours.

Another study that supported the above findings by Encabo and Ventanilla (2020) concluded that the canteen menu did not provide sufficient nutrients to meet adolescents' needs, and this was attributed to the limited variety of lunch options, which restricted students' intake of essential nutrients.

They recommend that the school implement policies to monitor the sale of nutritious foods in the canteen, and that concessionaires focus on product positioning and recipe modifications to improve the nutritional content of their offerings.

TABLE 3. School Canteen Profile in terms of Number of Food Serve

Rating	Frequency	Percentage	Descriptive Value
5	0	0%	Very Sufficient
4	0	0%	Sufficient
3	103	55%	Fairly Sufficient
2	67	36%	Insufficient
1	18	10%	Very Insufficient
Mean	2.45		
SD	0.66		
Descriptive Value	Insufficient		

As presented in Table, students show that there is insufficient number of foods in the school canteen obtaining the mean of 2.45 and standard deviation of 0.66. This indicates that there is a clear and consistent perception among students that the number of food items served in the canteen is inadequate.

A significant majority of the students rated the number of food items served as fairly sufficient (55%) or insufficient (36%). While notable 10% rated it as very sufficient. Critically, 0% of respondents rated the number of food items as sufficient or very sufficient. This is considered a major red flag.

In the article published by Castillo (2020), he provided a visual guide to balanced meal composition, emphasizing portion control and the importance of various food groups. The author recommended that meat, categorized as grow foods, should constitute only a small portion, less than a quarter of the plate. That recommendation can be used to better improve the findings. Also, he stressed the importance of including rice, recognizing carbohydrates as essential for energy, but advocating for complex carbohydrates.

TABLE 4. School Canteen Profile in terms of Food Cost

Rating	Frequency	Percentage	Descriptive Value
5	49	26%	Very Affordable
4	64	34%	Affordable
3	61	32%	Fair/Priced Accordingly
2	14	7%	Expensive
1	0	0%	Very Expensive
Mean	3.79		
SD	0.92		
Descriptive Value	Affordable		

As presented in Table 4, students show that the food in the school canteen is affordable with the mean of 3.79 and a standard deviation of 0.92 confirming that there is an above average of food cost. This indicates that the school canteen provides food menu which is affordable among the students.

A significant majority of the students rated the food cost as affordable (34%), very affordable (26%), or fair/priced (32%). While a small percentage rated it as expensive (7%) and very expensive (0%). This simply indicates a generally positive perception of the prices in the school canteen.

A study conducted by Wyse et al. (2016) highlighted that the cost differences and implications for children's dietary choices, ultimately suggested that healthier options may be priced higher than less nutritious alternatives. Further, research indicates that the cost of meals in school canteens varies significantly based on menu composition and food waste management practices.

#### Level of Food Service Attribute

In this study, Food Service Attributes were described in terms of cleanliness, service efficiency, friendliness and food appearance and was determined by the mean and standard deviation.

TABLE 5. Level of Food Service Attribute in the School Canteen terms of Cleanliness

STATEMENT	Mean	SD	Remarks
1. The school canteen is always clean and well-maintained.	4.81	0.45	Always
2. The dining tables and chairs are cleaned regularly.	4.75	0.49	Always
3. The food preparation area is visibly sanitary.	4.83	0.38	Always
4. The canteen staff follows proper hygiene protocols (e.g., handwashing, gloves).	4.85	0.39	Always
5. The utensils and serving plates provided are clean and free from dirt.	4.85	0.39	Always
Grand Mean	4.82		
SD	0.49		
Verbal Interpretation	Very High		

As presented in Table 5, students show very high level of status on the cleanliness of the food services in the school canteen and is supported by the grand mean (M=4.82, SD=0.49). This indicates that the school canteen always maintains its cleanliness to the very high level.

Students have an overwhelmingly positive perception of the cleanliness of the school canteen. The Canteen staff hygiene (M=4.85, SD=0.39), and the cleanliness of the utensils and plates (M=4.85, SD=0.49) are the most highly rated.

The above findings were supported by several studies, according to Wenxiong et al., (2023) that hygiene practices, including the cleanliness of surfaces, tableware, and staff attire, are crucial for enhancing customer well-being and satisfaction. A study found that improvements in tableware hygiene correlate with the increase in customer well-being.

TABLE 6. Level of Food Service Attribute in the School Canteen in terms of Service Efficiency

STATEMENT	Mean	SD	Remarks
1. The canteen staff serves food in a timely manner.	4.81	0.42	Always
2. The staff responds to the students' needs.	4.80	0.43	Always
3. The service process is well-organized and efficient.	4.88	0.37	Always
4. Orders are prepared and served accurately.	4.83	0.38	Always
5. The canteen staff handles high volumes of customers efficiently.	4.90	0.30	Always
Grand Mean	4.84		
SD	0.46		
Verbal Interpretation	Very High		

As presented in Table 6, students show very high level of food service attributes in terms of the service efficiency and



supported by a general mean ( $M=4.84$ ,  $SD=0.46$ ). This indicates that the school canteen is excelling in providing efficient and timely service to students.

All the statements show very high mean scores ranging from 4.80 to 4.90, indicating that students consistently perceive the canteen's service very highly efficient. Students have overwhelmingly positive perception of the services of the school canteen as to efficiency. The canteen staff were doing excellent job especially during high volume times ( $M=4.90$ ,  $SD=0.30$ ).

The finding of a very high level of service efficiency within the school canteen, as reported in this study, implies a context where operational challenges identified by Weerasinghe et al. (2017) have been effectively mitigated.

Conversely, the present study indicates that these challenges are not prevalent, suggesting successful management strategies. This is further corroborated by Jain et al. (2024), who found that technology, such as the SnapMeal system, can enhance service efficiency through automation.

The very high rating in this study implies that the canteen has either implemented effective operational procedures or leveraged technology to overcome the common service efficiency issues, leading to a positive student experience.

TABLE 7. Level of Food Service Attribute in the school canteen in terms of Friendliness

STATEMENT	Mean	SD	Remarks
1. The canteen staff is polite and courteous in their interactions.	4.70	0.48	Always
2. The staff is approachable and willing to assist with any concerns.	4.81	0.39	Always
3. I feel comfortable asking the staff questions about the menu or food.	4.78	0.50	Always
4. The staff greets customers with a smile and friendly attitude.	4.73	0.52	Always
5. The staff shows patience when handling customer requests.	4.75	0.51	Always
Grand Mean	4.75		
SD	0.54		
Verbal Interpretation			Very High

According to Table 7, pupils exhibit a very high degree of food service qualities in terms of staff friendliness, which is further evidenced by the grand mean ( $M=4.75$ ,  $SD=0.54$ ). This indicates that the school canteen is excelling in providing a friendly and welcoming environment for students. Also, the staff provides positive interactions that contribute positive experiences. This positive interaction, will lead to students being more likely to purchase food from the canteen.

All the statements show very high mean scores ranging from 4.70 to 4.81, indicating that students consistently perceive the canteen staff as friendly and approachable. Also, the staff of the school canteen are always approachable and willing to assist with any concerns ( $M=4.81$ ,  $SD=0.39$ ).

This very high level of friendliness among the staff of the school canteen is supported by several studies, Senior (2022) revealed that friendly staff can create a welcoming atmosphere, encouraging students to engage with peers and participate in school life, which is linked to higher educational completion rates. Positive interactions can help mitigate

feelings of loneliness and promote inclusivity, essential during transitional periods in schooling (Cross et al., 2018).

Also, Callegaro et al. (2023) mentioned that a supportive canteen environment can influence healthier food choices among students, contributing to better nutritional status and overall health. Friendly staff may encourage students to try new foods, enhancing their dietary variety and nutritional intake (Vinholes et al., 2018).

TABLE 8. Level of Food Service Attribute in the School Canteen in terms of Food Appearance

STATEMENT	Mean	SD	Remarks
1. The food is served in an attractive and visually appealing manner.	4.46	0.65	Strongly Agree
2. The presentation of meals reflects good food quality.	4.59	0.63	Strongly Agree
3. The food is neatly arranged when served.	4.45	0.63	Strongly Agree
4. The colors of the food served look fresh and appetizing.	4.64	0.53	Strongly Agree
5. The beverages are served in clean and appealing containers.	4.46	0.63	Strongly Agree
Grand Mean	4.52		
SD	0.66		
Verbal Interpretation			Very High

As presented in Table 8, students show very high level of food service attribute in terms of food appearance in the school canteen and supported by the grand mean ( $M=4.52$ ,  $SD=0.66$ ). This indicates that they generally find the food served to be visually appealing and well presented.

Students have shown strong agreement with all the statements and show high mean scores ranging from 4.45 to 4.64. While the appearance of the colors of the food is most highly rated ( $M=4.64$ ,  $SD=0.53$ ), and the arrangement of food being served got the lowest ( $M=4.45$ ,  $SD=0.63$ ). This only shows that the canteen is providing food that looks fresh.

The very high level of food appearance reported in this study aligns with existing research emphasizing the significant impact of visual presentation on consumer perceptions and behaviors. As Minegishi et al. (2023) demonstrated, visual saliency directly correlates with perceived favorability, particularly in hot snack contexts.

Similarly, Janjić et al. (2023) highlighted the crucial role of food aesthetics in shaping perceptions of both healthiness and taste, especially within the hospitality sector. The students' very high rating of food appearance in the school canteen indicates that the canteen effectively presents its offerings in a visually appealing manner, thereby positively influencing student perceptions and potentially, their food choices. This reinforces the idea that the canteen's attention to food appearance is a key factor in its positive reception.

#### Extent of Student's Satisfaction

In this study, the Extent of Student's Satisfaction was described in terms of reasonable price, food quality, beverage quality, food variety, service quality, and ambiance and was determined by the mean and standard deviation.

As presented in Table 9, students show very high extent of satisfaction to the school canteen in terms of reasonable price and this is supported by the grand mean ( $M=4.38$ ,  $SD=0.70$ ).

This simply indicates that the school canteen is successfully maintain a pricing structure that students find acceptable. Students are also motivated to buy their meals from the canteen because of the perceived value for money, which increases their satisfaction.

TABLE 9. Extent of Student's Satisfaction in the School Canteen in terms of Reasonable Price

STATEMENT	Mean	SD	Remarks
1. The prices of food and beverages are affordable for students.	4.31	0.62	Strongly Agree
2. The prices are reasonable considering the quality of the food.	4.39	0.70	Strongly Agree
3. I feel I get value for money when purchasing food at the canteen.	4.36	0.71	Strongly Agree
4. The prices are consistent with those in nearby stores or cafeterias.	4.59	0.56	Strongly Agree
5. There are options available that fit different budgets.	4.23	0.69	Strongly Agree
Grand Mean	4.38		
SD	0.70		
Verbal Interpretation	Very High		

Students generally show strong agreement with the prices of the food and beverages at the school canteen as reasonable and affordable with high mean scores ranging from 4.23 to 4.59. While, they also strongly agree that the prices are consistent with those in nearby stores or cafeterias ( $M=4.59$ ,  $SD=0.56$ ). However, prices of food and beverages are affordable got the lowest ( $M=4.31$ ,  $SD=0.62$ ).

Despite the general moderate satisfaction with canteen services noted in research, the current study reveals very high student satisfaction with reasonable pricing. This positive finding is consistent with research that identifies pricing as a significant factor in student contentment. Galabo et al. (2019) emphasized the correlation between service quality, including pricing, and student satisfaction.

TABLE 10. Extent of Student's Satisfaction offer in the School Canteen in terms of Food Quality

STATEMENT	Mean	SD	Remarks
1. The food served is fresh and tastes good.	4.31	0.64	Strongly Agree
2. The ingredients used in the food seem to be of high quality.	4.74	0.44	Strongly Agree
3. The meals are well-cooked and prepared hygienically.	4.49	0.67	Strongly Agree
4. I am satisfied with the portion sizes of the food served.	4.40	0.72	Strongly Agree
5. The food quality has been consistent over time.	4.51	0.67	Strongly Agree
Grand Mean	4.49		
SD	0.69		
Verbal Interpretation	Very High		

As presented in Table 10, students show very high extent of satisfaction on the food quality at their school canteen and is supported by the grand mean ( $M=4.49$ ,  $SD=0.69$ ). This indicates that the school canteen serves quality food for the students.

Students generally perceive strong agreement that the food quality at the school canteen is very high. The quality of the ingredients used is mostly high rated ( $M=4.74$ ,  $SD=0.44$ ). While the food served is fresh and tastes good got the lowest rate ( $M=4.31$ ,  $SD=0.64$ ). The students are more likely to buy meals from the cafeteria because of the strong, positive consensus on food quality.

While Galabo (2019) and Raya and Bajracharya (2023) reported moderate student satisfaction with overall canteen services, the current study reveals a very high extent of student satisfaction specifically in terms of food quality. This distinction highlights that even when overall canteen services may have areas for improvement, as revealed by Galabo (2019) regarding tangibility, responsiveness, and empathy, the specific aspect of food quality can still achieve high levels of satisfaction.

TABLE 11. Extent of Student's Satisfaction in the School Canteen in terms of Beverage Quality

STATEMENT	Mean	SD	Remarks
1. The beverages are always fresh and taste good.	4.48	0.61	Strongly Agree
2. There are a variety of beverage options available in the canteen.	4.76	0.43	Strongly Agree
3. The drinks are served at the right temperature (hot or cold).	4.49	0.59	Strongly Agree
4. The beverages are properly sealed or covered when served.	4.40	0.66	Strongly Agree
5. I am satisfied with the quality of beverages offered at the canteen.	4.65	0.53	Strongly Agree
Grand Mean	4.56		
SD	0.63		
Verbal Interpretation	Very High		

As presented in Table 11, students show very high extent of satisfaction in terms of beverage quality served in the school canteen and is supported by the general mean ( $M=4.56$ ,  $SD=0.63$ ). This indicates that the canteen is successfully providing high-quality beverages to students and the positive strong agreement will increase the student purchase of beverages.

All statements show high mean score ranging from 4.40 to 4.76, indicating that students generally have positive strong agreement of the beverage quality. The variety of beverage options available is most highly rated ( $M=4.76$ ,  $SD=0.43$ ), while beverages are properly sealed when served got the lowest rating ( $M=4.40$ ,  $SD=0.66$ ).

The very high level of beverage quality reported in this study aligns with research highlighting the significant impact of beverage quality on student satisfaction. Medina et al. (2024) found that students' satisfaction with the freshness and healthiness of beverages directly correlates with their overall satisfaction with canteen services. The very high rating in this study indicates that the school canteen successfully provides fresh and appealing beverages, contributing to a positive student experience.

Furthermore, Galabo et al. (2019) emphasized the importance of continuous service improvement based on student feedback, noting strong correlations between service quality indicators (tangibility, reliability, responsiveness) and

student satisfaction. The current study's findings indicate that the canteen's beverage offerings meet these criteria, resulting in high student satisfaction.

TABLE 12. Extent of Student's Satisfaction offer in the School Canteen in terms of Food Variety

STATEMENT	Mean	SD	Remarks
1. The canteen offers a wide range of meal options.	4.51	0.57	Strongly Agree
2. I can find different types of food to suit my taste preferences.	4.50	0.57	Strongly Agree
3. There are enough options for both snacks and full meals.	4.59	0.59	Strongly Agree
4. The menu includes a variety of healthy and indulgent food choices.	4.60	0.56	Strongly Agree
5. The canteen regularly introduces new food items.	4.50	0.59	Strongly Agree
Grand Mean	4.54		
SD	0.62		
Verbal Interpretation	Very High		

As presented in Table 12, students show very high extent of satisfaction on the food variety served in the school canteen and is supported by the grand mean ( $M=4.54$ ,  $SD=0.62$ ). This indicates that the canteen is successfully providing diverse range of food options to students.

Students generally show strong agreement the food variety of the school canteen with the mean scores ranging from 4.50 to 4.60. The availability of both healthy and indulgent choices is significant positive factors in students' satisfaction ( $M=4.60$ ,  $SD=0.56$ ). While the taste of the food suits to the students' preferences and the canteen regularly introduces new food items got the lowest score ( $M=4.50$ ,  $SD=0.59$ ).

The very high student satisfaction with food variety observed in this study is supported by research that identifies food variety as a crucial component of overall satisfaction. According to Akter et al. (2020), the diversity of food, along with its quality, atmosphere, and personnel, has a beneficial impact on student happiness. The very high rating in this study indicates that the canteen's diverse menu offerings have contributed significantly to student contentment. Raihen et al. (2023) also emphasized the importance of considering factors like food variety, quality, and price justice to enhance the student dining experience. The current study's findings indicate that the canteen has successfully addressed the food variety aspect, contributing to a positive student experience.

As presented in Table 13, students show very high extent of satisfaction in terms of the service quality served in the school canteen and is supported by the grand mean ( $M=4.61$ ,  $SD=0.62$ ). This indicates that the canteen is successfully providing high quality service to students.

Students generally show strong agreement about the service quality at the school canteen with the mean scores ranging from 4.56 to 4.69. The staff is well dressed appear neat got the highest rate ( $M=4.69$ ,  $SD=0.56$ ), while having not bust to respond to students' request got the lowest ( $M=4.56$ ,  $SD=0.57$ ).

The very high extent of student satisfaction with service quality at the school canteen suggests a successful implementation of professional and efficient service practices.

The high ratings for staff appearance, product knowledge, and prompt complaint handling indicate that the canteen prioritizes these aspects, aligning with research that emphasizes their importance. Studies like Galabo et al. (2019) and Raihen et al. (2023) have shown that responsiveness and staff demeanor significantly impact student satisfaction.

TABLE 13. Extent of Student's Satisfaction offer in the School Canteen in terms of Service Quality

STATEMENT	Mean	SD	Remarks
1. The staff is always willing to help and answer questions.	4.63	0.56	Strongly Agree
2. The staff never bust to respond their students' request.	4.56	0.57	Strongly Agree
3. The canteen staff addresses any complaints or issues promptly.	4.60	0.60	Strongly Agree
4. The staff shows knowledge of the products sold in the canteen.	4.58	0.57	Strongly Agree
5. The staff is well-dressed appear neat.	4.69	0.56	Strongly Agree
Grand Mean	4.61		
SD	0.62		
Verbal Interpretation	Very High		

As presented in Table 14, students show very high extent of satisfaction in terms of the ambiance of the school canteen and is supported by the grand mean ( $M=4.61$ ,  $SD=0.62$ ). This indicates that the canteen is successfully providing a pleasant and comfortable dining environment for students.

Students generally show strong agreement about their satisfaction in terms of ambiance at the school canteen with the mean scores ranging from 4.56 to 4.69, which indicates positive perception of the ambiance. Students have enjoyed the over-all environment when eating in the canteen ( $M=4.69$ ,  $SD=0.56$ ), while noise level at the area is still acceptable and got the lowest rate ( $M=4.58$ ,  $SD=0.57$ ). The canteen ambiance contributes positively to the over-all students' experiences.

TABLE 14. Extent of Student's Satisfaction offer in the School Canteen in terms of Ambiance

STATEMENT	Mean	SD	Remarks
1. The canteen's atmosphere is pleasant and comfortable.	4.63	0.56	Strongly Agree
2. The seating area is spacious and well-arranged.	4.56	0.57	Strongly Agree
3. The lighting and ventilation in the canteen are adequate.	4.60	0.60	Strongly Agree
4. The noise levels in the canteen are acceptable for a dining space...	4.58	0.57	Strongly Agree
5. I enjoy the overall environment when eating in the canteen.	4.69	0.56	Strongly Agree
Grand Mean	4.61		
SD	0.62		
Verbal Interpretation	Very High		

The very high extent of student satisfaction with the canteen ambiance highlights the importance of a positive dining environment in shaping students' overall experience. Chang and Suki (2018) demonstrated that a comfortable and inviting atmosphere is a strong predictor of student satisfaction in university cafeterias. Similarly, Smith et al.

(2020) confirmed the positive impact of ambiance on student satisfaction and dining frequency.

The very high rating in this study suggests that the school canteen has successfully created an enjoyable environment that enhances student satisfaction. This aligns with the recommendations from both studies, emphasizing the need for cafeteria operators to prioritize ambiance alongside other factors like food quality and service.

#### Significant Relationship Between School Canteen Profile and Students' Satisfaction

To test the relationship between school canteen profile and students' satisfaction data were treated statistically in Minitab 14 using Pearsons R. The major findings were presented in the following table.

TABLE 15. Significant Relationship Between School Canteen Profile and Students' Satisfaction offer in the School Canteen

School Canteen Profile (IV)	Students' Satisfaction (DV)					
	RP	Food quality	Beverage quality	Food variety	SQ	A
Menu Variety: Pearson	.28	15	0.135	0.129	0.147	0.159
Correlation	.00	0.033*	0.064	0.079	0.044*	0.029*
p-value	188	188	188	188	188	188
N						
Nutritional Focus: Pearson	0.389	0.196	0.252	0.284	0.218	0.230
Correlation	0.000*	0.007*	0.000*	0.000*	0.003*	0.001*
p-value	188	188	188	188	188	188
N						
Number of Foods Serve: Pearson	0.050	0.012	0.050	0.036	0.039	0.015
Correlation	0.500	0.68	0.499	0.625	0.593	0.837
p-value	188	188	188	188	188	188
N						
Food Cost: Pearson	0.269	0.144	0.146	0.206	0.211	0.148
Correlation	0.000*	0.049*	0.046*	0.004*	0.004*	0.045*
p-value	188	188	188	188	188	188
N						

Note: \* p < .05

Service quality

Ambiance

Table 15 presents the correlation between school canteen profile and students' satisfaction. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=188) for each relationship. This shows how different aspects of the school canteen profile relate to students' satisfaction in various factors such as reasonable price, food quality, beverage quality, food variety, service quality, and ambiance.

As presented, significant correlation of nutritional focus and food cost to students' satisfaction indicates that students value healthier food choices and affordability. In addition to that, menu variety shows a significant correlation to students' satisfaction except for the factors beverage quality and food variety meant that variation on the menu has a meaningful influence to students' satisfaction, especially with regards to pricing, food quality, service, and ambiance. However, it does not strongly correlate of beverage quality or overall food

variety. On the other hand, the number of foods served shows no significant correlation to students' satisfaction among all factors. This implies that the quantity of food options does not significantly in relation to students' satisfaction. To sum up, students may prioritize quality, variety, and affordability over the mere number of food choices.

#### Significant Relationship Between Food Service Attributes and Students' Satisfaction

To test the relationship between food service attributes and students' satisfaction data were treated statistically in Minitab 14 using Pearsons R. The major findings were presented in the following table.

Table 16 presents the correlation between food service attributes and students' satisfaction. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=188) for each relationship. This shows how different food service attributes (cleanliness, service efficiency, friendliness, and food appearance) relate to students' satisfaction in various factors such as reasonable price, food quality, beverage quality, food variety, service quality, and ambiance.

TABLE 16. Significant Relationship Between Food Service Attributes and Students' Satisfaction offer in the School Canteen

Food Service Attributes (IV)	Students' Satisfaction (DV)					
	RP	FQ	BQ	FB	SQ	A
Cleanliness: Pearson	0.405	0.58	0.440	0.447	0.553	
Correlation	0.000*	0.000*	0.000*	0.000*	0.000*	0.410
p-value	188	188	188	188	188	0.000188
N						
Service Efficiency: Pearson	0.454	0.660	0.500	0.584	0.653	0.437
Correlation	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
p-value	188	188	188	188	188	188
N						
Friendliness: Pearson	0.425	0.617	0.489	0.551	0.793	0.447
Correlation	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
p-value	188	188	188	188	188	188
N						
Food Appearance: Pearson	0.571	0.793	0.573	0.651	0.662	0.653
Correlation	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
p-value	188	188	188	188	188	188
N						

Note: \* p < .05

As presented, significant positive correlations were observed between all food service attributes and all aspects of students' satisfaction (reasonable price, food quality, beverage quality, food variety, service quality, and ambiance). All p-values are 0.000, which is significantly less than 0.05, indicating strong statistical significance. This implies that improvements in cleanliness, service efficiency, friendliness, and food appearance are associated with increased student satisfaction across all measured factors.

Notably, the strength of the correlations varies. Food appearance and service efficiency show particularly strong



positive correlations with food quality ( $r = 0.793$  and  $r = 0.660$  respectively), service quality ( $r = 0.662$  and  $r = 0.653$  respectively), and food variety ( $r=0.651$  and  $r=0.584$  respectively). This suggests that students highly value the visual appeal of food and the efficiency of service in relation to these satisfaction factors. Friendliness also shows a strong positive correlation with service quality ( $r = 0.793$ ), indicating that staff friendliness significantly impacts student perception of service quality.

In contrast, while still statistically significant, the correlations between cleanliness and students' satisfaction are comparatively lower, though still positive. This implies that while cleanliness is important, other attributes like food appearance, service efficiency, and staff friendliness have a more pronounced impact on student satisfaction.

In summary, all food service attributes examined (cleanliness, service efficiency, friendliness, and food appearance) show a significant positive relationship with students' satisfaction across all measured factors. However, the strength of these relationships varies, with food appearance, service efficiency, and friendliness having a more substantial impact on student satisfaction compared to cleanliness. This highlights the importance of focusing on these key attributes to enhance student satisfaction with the school canteen.

#### IV. CONCLUSION AND RECOMMENDATIONS

Based from the findings of this study, the following conclusions are drawn:

There is significant relationship between school canteen profile and students' satisfaction. Therefore, the null hypothesis is rejected.

The characteristics of the school canteen service are strongly correlated with student satisfaction. Therefore, the null hypothesis is rejected.

The following recommendations are made based on the study's findings and the conclusions reached:

The school canteen management may maintain the variety and continue offering a diverse selection of food options suitable for the needs of the students.

The school canteen manager and staff may significantly increase the number of food options which is available in the locality of the school.

School Canteen Management together with the school head may continue upholding the high standards of food service attributes by providing benchmarking activities with the nearby senior high schools.

The school canteen staff, with oversight of the school canteen manager, must prioritize improving the freshness and taste of the food. This includes sourcing high-quality ingredients, adhering to proper food preparation techniques, and implementing quality control measures.

Future research may compare canteen profiles and student satisfaction across different types of schools.

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