

School Canteen Management and Customer Satisfaction: Basis for Operationalizing a Food Center in Mulanay District II

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Abstract

The goal of the study was to ascertain how the operation of a food center in Mulanay District II correlated with the management of the school cafeteria and customer satisfaction.

300 students from Pakiing National High School and Doa Francisca Alvarez Rejano Integrated School during the academic year 2022–2023 served as the study's responders. Questionnaires were used in the descriptive method of research to collect the necessary data. It employed descriptive statistics like mean and standard deviation. The significance of the link between two variables was examined using Pearson r .

The following questions were specifically addressed in this study: (1) How do students evaluate the school canteen management in terms of the quality of food (food preparation, food safety/sanitation), handling of utensils and equipment, quality of customer service, prices of goods, and utilization of facilities. (2) What is the level of customer satisfaction perceived by the student respondents in terms of availability of budget and availability of staff (3) Is there a significant relationship of school canteen management and customer satisfaction as basis for operationalizing a food center in Mulanay District II in terms of availability of budget and availability of staff.

The significant findings of the study are as follows:

Based on the findings and results of statistical analysis, the overall assessment of the respondents towards Canteen Management in terms of Quality of Food rendered with an overall mean of (4.20). The result revealed that student respondents were "Often". The result revealed that student respondents frequently patronize the food in the school canteen during recess time and their focus is just to buy and eat to satisfy their needs. This denotes that quality food is one of the important aspects in school canteen management, thus, when it comes to quality it will always be considered and it must be in accordance to the guidelines in preparing and serving foods given by the Department of Education. The result further reveals that the most indicators are needed to improve the quality of food served in a school canteen. The school canteen manager and staff must know and prepare food that based on the menu planning and prescribed by the DepEd.

Keywords: school canteen management; customer satisfaction; operationalizing

1. Introduction

According to DepEd Order No. 13, s., one of the auxiliary services in the school system that is in charge of selling nutritious foods and beverages is the school canteen. It was published in 2017 and is titled Policy and Guidelines on Healthy Food and Beverage Choices in Schools and DepEd Offices. Its purpose is to promote efforts to end school-based malnutrition. It will provide as a testing ground for Home Economics, retail business, and incidental instruction in nutrition and health. It is the finest environment for teaching students how to plan, buy, prepare, store, and sell a healthy meal.

Students, teachers, and other school staff can enjoy wholesome food at reasonable costs during the school day thanks to the creation and operation of a school canteen, which plays a significant role in cultivating their love of and interest in purchasing wholesome foods. The school cafeteria should offer a variety of foods and cuisines that complement the information and skills students learn about food and nutrition in the classroom (Maniquiz, 2009).

The school canteen should be well-established to help students by enabling them to purchase wholesome food

at affordable costs, by offering a range of foods and meals, and by setting prices that allow for appropriate profits. A canteen policy built on this principle would be beneficial because it would encourage those in charge of providing food to reduce health risks associated with poor nutrition. According to the Tasmanian School Canteen Handbook (2014), this involves having access to healthy food options, having the knowledge and skills to make healthy food choices, and having a healthy attitude toward food.

Teaching kids about food and nutrition is one of a home economics teacher's ultimate objectives. Knowledge and abilities put to use practically could improve canteen management in schools. Every student is inspired and guided by the good and recommended services provided by the school cafeteria to develop a passion and interest in food and nutrition as well as healthy eating habits and practices. In this regard, it is necessary to evaluate the management of the canteen in order to provide the finest services to patrons and ensure their pleasure.

1.1. Background of the Study

The principal or head of the school has overall control over how the school canteens are run and managed. Then, on a rotating basis, additional instructors will assist the canteen teacher, who is often a home economics teacher, in managing and supervising the school cafeteria. The school head/principal must hire extra competent full-time canteen staff in addition to the canteen teacher and other teachers, pending funding availability. For a designated canteen teacher and other teachers, in addition to direct oversight in overall administration and operation as per DepEd Order No. 8, s. 2007.

In Mulanay District II Secondary School, Pakiing National High School, and Doa Francisca Alvarez Rejano Integrated School, canteen teachers typically handle all tasks associated with managing and operating the school canteen, such as menu planning while taking other customers' and students' health into consideration, buying food, preparing food to be served during recess time, and maintaining cleanliness and sanitation of the school canteen with the help of canteen assistants if the net profit sustain to hire and pay for a canteen staff.

As a result, the school cafeteria should make sure that the food given to pupils with limited financial resources is affordable and has the nutritional content that they require. Schools in particular are suggested as a useful location to enhance students' nutritional intake since they provide access to nearly all pupils during crucial developmental periods. While attending school, students can pick and select what they eat.

The public secondary schools in Mulanay District II currently operate the school canteen, however there are a number of issues that need to be resolved, especially with regard to the caliber of the services offered to students. According to the preliminary research the researcher conducted, the majority of the canteens in public secondary schools are handled by the school through their TLE teachers, and only a small number of these particularly large schools are controlled by concessionaire. For instance, many students worry about how expensive the items in the canteen are and how they are unable to buy them. Additionally, due to the canteen's packed conditions the most of the time, teachers and students suggest a venue that is larger.

The researcher was given the task of conducting this study in order to evaluate the management of school canteens and customer satisfaction at Pakiing National High and Doa Francisca Alvarez Rejano Integrated School as a basis for operationalizing their own school canteens because the school canteen of Ilayang Yuni Junior and Senior Integrated National was closed. In order to operationalize a food center in Mulanay District II, the study's general objective is to explain the features of school canteens, to comprehend school canteen administration, and to gauge customer satisfaction.

1.2. Theoretical Framework

The aim of any food handlers' training is to influence safe food handling behavior in the workplace. However, Clayton and Griffith (2008) have shown that knowledge-based training programs do not automatically translate to safe food handling in the workplace. This has led to the call for the use of behavioral science theories to help food handlers understand food hygiene behavior (Rennie, 1995). The theoretical frameworks selected for this study was social cognition theories that are used to explain how humans acquire and maintain certain behaviors. The theories selected for this study were the social cognitive theory (SCT), the theory of planned behavior (TPB) and health belief model (HBM). According to Bandura (as cited by Cherry, 2011). "Most human behavior is learned observationally through modeling" and the mental state of the individual, along with the physical and social environment, interact to produce an observed behavior. There are three models of observational learning (modeling): a live model, a verbal instruction model and a symbolic model. All three models operate in some aspects of both food safety training programs.

According to the HBM, an individual will behave based on his/her perception of his her susceptibility to a serious or severe threat and whether the benefits to be derived from performing the proposed behavior to minimize the threat outweigh the barriers to performing those action (Janz & Becker, 1984). Therefore, if food handlers perceive that

their hand washing behavior, for example, can put them or the customers at risk for food-borne illness, and the benefits of washing hands are far greater than the barriers, the hand washing behavior will occur. This theory has been tested among food handlers (Cho, Hertzman, Erdem, & Garriott, 2012), and researchers have found that there are benefits to be derived from training.

The TPB is a social cognition theory that is frequently used in trying to understand food handling behavior (Ajzen, 1991). According to the TBP, an individual's behavior is determined by behavioral intentions, and these intentions are a function of attitudes, subject norms, and perceived behavioral control. Researchers have demonstrated that the TBP is useful in explaining factors influencing food handlers' behaviors, such as hand hygiene (Clayton & Griffith, 2008) and general food handling practices.

1.3. Statement of the Problem

The study sought to assess the school canteen management of Pakiing National High School and Doña Francisca Alvarez Rejano Integrated School.

Specifically, the study attempted to answer the following questions:

1. How do the student respondents assess the school canteen management in terms of:
 - 1.1. Quality of Food
 - 1.2. Food preparation
 - 1.3. Food safety/sanitation
 - 1.4. Utensils and Equipment Handling
 - 1.5. Quality of Customer Services
 - 1.6. Prices of Commodities
 - 1.7. Utilization of Facilities
2. What is the level of customer satisfaction in terms of:
 - 2.1. Food Serve
 - 2.2. Staff Attitude
3. Is there a significant relationship of school canteen management and customer satisfaction as basis for operationalizing a food center in Mulanay District II in terms of:
 - 3.1. Food Serve
 - 3.2. Staff Attitude

1.4. Results and Discussion

Table 1. Assessment of Student Respondents on School Canteen Management as to Quality of Food

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	The canteen promotes and sells healthy choices of foods with nutritional value.	4.22	0.91	Often
2	The canteen sells appropriate amount of foods that can sustain the needs of the students.	4.10	1.00	Often
3	The canteen serves foods that are fresh, newly cooked and prepared	4.30	0.94	Often
4	The canteen has a registered food safety and hygiene plan that is regularly audited and followed by canteen staff.	4.14	1.03	Often
5	The canteen is committed to the promotion of healthy and nutritious foods to the students.	4.23	0.902	Often
	Over-All	4.20	0.96	Often

Table 1 shows the assessment of student respondents on Quality of Food served by the school canteen. "The canteen serves foods that are fresh, newly cooked and prepared" indicator obtained the highest weighted mean of 4.30. It has the verbal interpretation of "Often." Indicator 2 "The canteen sells appropriate amount of foods that can sustain

the needs of the students” got lowest weighted mean of 4.10 with “Often” verbal interpretation. The overall weighted mean of perception on the quality of food served by the school canteen is 4.20 with a verbal interpretation of “Often”. The result further reveals that the most indicators are needed to improve the quality of food served in a school canteen. The school canteen manager and staff must know and prepare food that based on the menu.

It upholds Section 13 of DepEd Order No. 13. 2017 established the Policy Guidelines on Healthy Food and Beverage Choices in Schools and at DepEd Offices to encourage young people and DepEd staff to eat healthfully by providing a range of economical, wholesome, and wholesome menu options, as well as to establish food standards. The aforementioned policy guidelines seek to: provide students, DepEd staff, and other stakeholders with healthier food and beverage options; introduce a system of classifying locally available foods and drinks in accordance with geographical, cultural, and religious orientations; offer guidance in evaluating and categorizing foods and drinks; and offer guidance in selling and marketing foods and beverages in schools and DepEd offices, including the purchase of food and beverages.

It may be inferred from the findings that student respondents are aware of and value the caliber of the food provided in the school cafeteria. The type of cuisine supplied in the canteen—no more soft drinks and junk food—is what the respondents are accustomed to.

Table 2. Assessment of Student Respondents on School Canteen Management as to Food Preparation

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Display foods are covered.	4.10	1.06	Often
2	Canteen staffs use clippers and plastic gloves when serving food.	3.71	1.14	Often
3	Raw ingredients are kept away from the foods to be displayed.	4.02	0.99	Often
4	First In, First Out is being applied in selling foods.	3.85	1.03	Often
5	Ready to eat or cooked food is placed in clean counters or containers.	4.34	0.92	Often
	Over-All	4.01	1.05	Often

Table 2 displays the assessment of student respondents on school canteen food preparation. Indicator 5 “Ready to eat or cooked food is placed in clean counters or containers” has the highest weighted mean of 4.34 and has “Often” verbal interpretation. Indicator 2 “Canteen staffs use clippers and plastic gloves when serving food. The overall weighted mean of the perception of student respondents on school canteen food preparation is 4.01 and has “Often” verbal interpretation.

The conclusion is that thorough and well-planned preparation is required for food preparation in order to offer it cleanly, meet the demands of the students, and be able to serve food that is both nutritional and clean. It is the duty of management as well as the entire workforce to ensure that proper hygiene procedures are followed and implemented when preparing meals. The management is in charge of ensuring that the spaces and tools are maintained tidy.

Table 3. Assessment of Student Respondents on School Canteen Management as to Food Safety/Sanitation

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Refrigerated raw ingredients are covered.	4.17	0.99	Often
2	Raw ingredients are washed before cooked.	4.53	0.84	Always
3	Canteen staffs wash their hands before and after food preparation.	4.46	0.86	Often
4	Mineral water is used for juice drink, cooking and the likes.	4.22	1.00	Often
5	Potentially hazardous foods are properly kept, handled and stored.	4.02	1.06	Often
	Over-All	4.28	0.97	Often

Table 3 shows the assessment of student respondents on school canteen food safety/sanitation. "Raw ingredients are washed before cooked" indicator has the highest weighted mean of 4.53 and has a verbal interpretation of "Always." Indicator 5 "Potentially hazardous foods are properly kept, handled and stored" got the lowest weighted mean of 4.02 with verbal interpretation "Often." The overall weighted mean of student respondents' perception on school canteen food safety/sanitation is 4.28 and has "Often" verbal interpretation.

The outcome suggests that the school canteen's duty is to preserve food safety, communicate this to their workers, and ensure that their patrons are well-cared-for. By regulating the environment and conditions, the school canteen provides good-quality food that tastes good. Customers expect that the food won't make them sick, so even if potentially harmful bacteria are present in uncooked or raw food, they won't be able to survive, grow, and multiply, leading to illness.

Table 4. Assessment of Student Respondents on School Canteen Management as to Utensils and Equipment Handling

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Use microwaves, pans and pots, toasters and other cooking appliances only with food inside and stay in the kitchen while operating all appliances.	3.90	1.10	Often
2	Trays, clippers, cutting boards and knives are washed before and after use.	4.47	0.82	Often
3	Kitchen utensils are properly organized	4.27	0.92	Often
4	Glasses and spoons used in serving food are covered/kept in a safe place.	4.28	0.88	Often
5	Kitchen wares are properly washed and sanitized after each use.	4.26	0.94	Often
	Over-All	4.24	0.95	Often

Table 4 illustrates the assessment of student respondents on school canteen utensils and equipment handling. With 4.47 weighted mean, the indicator "Trays, clippers, cutting boards and knives are washed before and after use" acquired the highest weighted mean that has "Often" verbal interpretation. Meanwhile, Indicator 1 "Use microwaves, pans and pots, toasters and other cooking appliances only with food inside and stay in the kitchen while operating" has obtained lowest weighted mean of 3.90 with verbal interpretation of "Often". The overall weighted mean of the perception of student respondents' on utensils and equipment handling is 4.24 with a verbal interpretation of "Often".

The outcome suggests that the canteen staff is aware of the necessary methods for cleaning items in order to

keep the kitchen tidy. Three basins big enough for the utensils to be submerged, a source of potable hot water, and a suitable way to dispose of the used water should be the bare minimum for a set-up for washing, rinsing, and sanitizing utensils. At least once every four hours, equipment and utensils that are in use need to be cleaned and sanitized.

Table 5. Assessment of Student Respondents on School Canteen Management as to Quality of Customer Services

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	The canteen staff members show food and safety practices to ensure quality and maintain food safety.	4.34	0.88	Often
2	The canteen management practice kindness and honesty.	4.42	0.89	Often
3	Efficiency and effectiveness of services rendered.	4.09	0.99	Often
4	The courteousness to our customers is required.	4.24	0.94	Often
5	The quality appearances of our physical facilities are maintained.	4.09	0.94	Often
	Over-All	4.24	0.94	Often

Table 5 shows the weighted mean for Quality of Customer Service exerted by the canteen management and staff toward the valued customers. It has over-all weighted mean of 4.24 that interpreted as “Often”. All the statements got an interpretation of “Often”, Indicator 2 “The canteen management practice kindness and honesty”, got the highest weighted mean of 4.42 with verbal interpretation “Often.” While indicator 3 and 5 “Efficiency and effectiveness of services rendered” and “The quality appearances of our physical facilities are maintained” got a lowest weighted mean of 4.09 with verbal interpretation “Often.”

This means that the school canteen practices putting the comfort of the kids first, and that the staff upholds kindness, honesty, and courtesy when providing for the needs of the children and safeguarding their safety as they eat healthful food. Additionally, the findings imply that managers and staff members of school canteens should go through a complete examination of the canteen's services in order to offer its patrons high-quality services.

Table 6. Assessment of Student Respondents on Canteen Management as to Prices of Commodities

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Healthy canteen choices are sold at competitive prices.	4.10	0.97	Often
2	The canteen sells food at affordable prices.	3.99	1.03	Often
3	The canteen provides cheap but nutritious food for snack and lunch time to supplement for the customer.	4.15	0.98	Often
4	The canteen offer cost serving meals to the students.	4.04	1.06	Often
5	Variation and price of foods sells depends on the quality and quantity.	4.17	0.92	Often
	Over-All	4.09	1.00	Often

The table 6 shows the weighted mean for the Prices of Commodities given by in accordance of comfort and affordability to the customers. This got an over-all weighted mean of 4.09 that interpreted as “Often” this means that

most of the customer agree and satisfied the prices implemented by the school canteen management towards the needs and accordance to the affordability of the customer to buy nutritious foods. For the content, the statement “Variation and price of foods sells depends on the quality and quantity”, got a highest weighted mean of 4.17, interpreted as “Often” and indicator 2 “The canteen sells food at affordable prices” got a lowest weighted mean of 3.99, interpreted as “Often” means that the affordability of the cheap but nutritious foods sells by the school canteen was much prefer to buy than those who sells nutritious but expensive foods. This also proves that that the canteen follows the recommendation headed by the higher (DepEd recommendation for the school canteen). While the statements “The canteen offer cost serving meals to the students”, “The canteen sells food at affordable prices” are both got a weighted mean of 4.04 and 3.99 which interpreted as “Often” without entails that the canteen exerted right pricing of foods in accordance of its quality and quantity and a competitive prices without changing it nutrition value.

Stuart Gross claims that there is also a pricing range that is determined by presentation and safety and will support your company. By giving your products and canteen personnel a decent presentation, you can always bargain with a serious buyer (2010). Not just for the students' wellbeing, but also for the canteen's revenue because good canteen management, food handling, and sanitation are also required to draw in more customers and generate more revenue.

Table 7. Assessment of Student Respondents on School Canteen Management as to Utilization of Facilities

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Chairs and tables are arranged to attain comfort and pleasant atmosphere of the canteen.	4.07	1.02	Often
2	Appropriate places for cooking, washing, storage of utensils and display of food for sale are provided.	4.20	0.94	Often
3	The storage area must be kept clean and well maintained.	4.25	0.91	Often
4	There is enough ventilation, the variation and lighting facilities are maintained to make a comfortable while staying at the canteen.	3.91	1.10	Often
5	Hand washing area is visible and near the school canteen.	4.23	0.99	Often
	Over-All	4.13	1.00	Often

Table 7 shows the weighted mean of Utilization of School Canteen Facilities. “The storage area must be kept clean and well maintained” this statement got a highest weighted mean 4.25 which interpreted as “Often” that indicated the school canteen storage areas are well managed for the safety food, students and staff. “There is enough ventilation, the variation and lighting facilities are maintained to make a comfortable while staying at the canteen” got 3.91 which interpreted as “Often” means that canteen facilities are engaging food safety, maintaining comfort ability for all customers while staying long anytime at the canteen.

The survey's findings indicate that the school canteen does not have enough ventilation to accommodate diners during recess, according to the student respondents.

It supports Matthew Trowbridge's argument that via design and architecture, we can motivate kids to eat better and be more active. Therefore, interior and architectural design can also be detrimental to a healthy diet and regular exercise. With some of the school canteen facilities currently in use, it may be the case. "If you are trying to run a new type of policy regarding school food, the school facility and building will act to either prevent or catalyze change," he said.

Therefore, this may imply that routine facility maintenance should always be practiced. To ensure better canteen services, facilities should also be inspected and managed properly.

Table 8. Summary of Assessment of Student Respondents on Canteen Management

Variables	Student Respondents	Std. Deviation	Verbal Interpretation
1. Quality of Food	4.20	0.96	Often
2. Food preparation	4.01	1.05	Often
3. Food safety/sanitation	4.28	0.97	Often
4. Utensils and Equipment Handling	4.24	0.95	Often
5. Quality of Customer Services	4.24	0.94	Often
6. Prices of Commodities	4.09	1.00	Often
7. Utilization of Facilities	4.13	1.00	Often
Grand Mean	4.17	0.04	Often

Table 8 shows the summary of the assessment of the student respondents on School Canteen Management. It can be seen from the table that Food safety/sanitation obtained the highest overall mean of 4.28 interpreted as "Often." It was followed by Utensils and Equipment Handling and Quality of Customer Services with overall mean of 4.24 with an interpretation of "Often." Quality of Food with an overall mean of 4.20 interpreted as "Often" and then Utilization of Facilities with and overall mean of 4.13 interpreted as "Often." Second to the last is Prices of Commodities with an overall mean of 4.09 interpreted as "Often" and lastly is Food Preparation garnered the lowest overall mean of 4.01 interpreted as "Often."

Hanes (2008) emphasized that it is not only the responsibility of management, but also of the entire staff to see to it that good sanitation practices are observed and carried out. Management has the responsibility to see it that the facilities and equipment are kept clean. Both personal hygiene and sanitation must have top priority in any food service organization and management.

The student respondents' assessment on their school canteen observation and experiences. As far as the school canteen management is concerned it's duties and responsibilities of the school head, canteen manager and canteen aide to make an evaluation and apply necessary innovation when it comes to the services they are offering to serve clientele better.

As a result, the aforementioned conclusion suggests that management needs to be improved when it comes to the food preparation of foods and services. As stated in the policy guidelines of the school, the school canteen is the only facility on the grounds that is responsible for encouraging healthy diets and positive eating behavior and providing a healthy dining environment to students, teaching and non-teaching professionals.

Table 9. Level of Customer Satisfaction in terms of Food Serve

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Canteen prepares and serves quality food.	3.98	1.07	Often
2	Food is in an accessible place.	3.77	1.16	Often
3	Selling price is affordable	3.81	1.05	Often
4	Canteen sells healthy and nutritious food.	3.95	1.03	Often
5	Food is available at all times.	3.91	1.19	Often
	Over-All	3.88	1.13	Often

Table 9 can be denoted that Indicator 1 or "Canteen prepares and serves quality food" obtained the highest mean of 3.98 and is interpreted as "Often" in Table 9. This may be seen. With an overall weighted mean of 3.88 and a verbal interpretation of "Often," Indicator 2—"Food is in an Accessible Place"—got the lowest weighted mean of 3.77. From the perspective of the pupils, they need to buy or access food during recess. It implies that the school principal and the canteen manager saw a scarcity of canteen stores during break time and decided to set up an alternative location or canteen where students could conveniently purchase their food. Additionally, in order to support and fulfill the Department of Transportation's mission, customer satisfaction with the services they receive is crucial.

Table 10. Level of Customer Satisfaction in terms of Staff Attitude

No.	Indicators	Student Respondents		
		Mean	Std. Deviation	Verbal Interpretation
1	Canteen staffs responsive to student' request.	4.04	1.04	Very Satisfied
2	Providing prompt service	4.02	0.96	Very Satisfied
3	Having the heart to willingly serve and help the students.	4.29	0.91	Very Satisfied
4	Providing good and quality service	4.33	0.92	Very Satisfied
5	Satisfying student's needs	4.12	1.04	Very Satisfied
	Over-All	4.16	0.98	Very Satisfied

Table 10 shows the level of customer satisfaction in terms of staff attitude. Indicator 4 or providing good and quality service obtain the highest mean 4.33 interpreted as "Very Satisfied". In the point of view of student respondents they felt safe showing canteen provided good and quality service. On the other hand, Indicator 2 or providing prompt service achieved the lowest mean score of 4.02 with an interpretation of "Very Satisfied. It suggests that school canteen have additional canteen staff to provide quick service to the students.

Overall, the customer satisfaction was rated as "Very Satisfied" with a mean score of 4.16. It suggests that the personnel was amiable and constantly eager to provide courteous service to the clients. Additionally, one of the most important factors in the success of canteen management is the canteen employees. They might engage with clients and speak for the canteen. If customers are pleased with the staff's assistance, they are likely to return to the canteen.

Table 11. Test of Relationship between School Canteen Management and Customer Satisfaction as Basis for Operationalizing a Food Center in terms of Food Serve

Variables	Food Serve	Interpretation
SCHOOL MANAGEMENT		
Quality of Food	.408**	Significant
Food preparation	.367**	Significant
Food safety/sanitation	.367**	Significant
Utensils and Equipment Handling	.344**	Significant
Quality of Customer Services	.396**	Significant
Prices of Commodities	.441**	Significant
Utilization of Facilities	.501**	Significant

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

Table 11 shows the test of relationship between school canteen management and customer satisfaction as basis

for operationalizing a food center in terms of food serve. It can be noticed that variables such as quality of food, food preparation, food safety/sanitation and utensils and equipment handling, quality of customer services, prices of commodities and utilization of facilities have significant relationship for operationalizing a food center in terms of availability of budget.

Meriam Webster Inc., (2014). Canteen is a store in a camp or school in which foods, drinks, and small supplies are sold. It is a place where someone can energize himself. All canteens have the responsibility to its customer of providing quality food services through proper maintenance and observation of good hygiene.

Important educational resources include the cafeterias and other dining facilities at schools. They are an essential element of the school atmosphere and play a significant role in feeding the students and the surrounding community.

The educational objectives of the school should be reflected in the school canteen, which should also promote and enhance student learning. The food offered by the school canteen, if regularly consumed, may make up a third of a student's total daily consumption and have a substantial impact on their health and nutrition. Every day, a sizable share of students dine in school cafeterias. They represent a captive market for canteen operators because they are unable to leave the school throughout the day. However, this should never result in exploitation through exorbitant prices or subpar food and drink. Schools have an obligation to properly feed both kids and employees. Schools' canteens must adhere to national standards for food preparation, storage, hygiene, and safety, according to administrators and cafeteria committees.

Table 12. Test of Relationship Between School Canteen Management and Customer Satisfaction as Basis for Operationalizing a Food Center in terms of Staff Attitude

Variables	Staff Attitude	Interpretation
SCHOOL MANAGEMENT		
Quality of Food	.468**	Significant
Food preparation	.410**	Significant
Food safety/sanitation	.471**	Significant
Utensils and Equipment Handling	.539**	Significant
Quality of Customer Services	.608**	Significant
Prices of Commodities	.517**	Significant
Utilization of Facilities	.503**	Significant

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

Table 12 shows the test of relationship between school canteen management and customer satisfaction as basis for operationalizing a food center. It can be noticed that variables such as quality of food, food preparation, food safety/sanitation and utensils and equipment handling, quality of customer services, prices of commodities and utilization of facilities have significant relationship for operationalizing a food center in terms of availability of staff. It implies that improving all aspects of school canteen management needed thorough evaluation and varied techniques to impose for better services.

Markieeu, (2013) In order to determine how to improve the food and services given at the canteen, management must first determine whether consumers are satisfied with the food or whether they meet or exceed their expectations. The management team's ability to maintain positive interactions with customers and treat one another with respect, as well as how to handle customers' behavior without offending them, are other significant factors to consider.

1.5. Summary of Findings

The findings of the study are summarized under the following orders of the specific problems.

1. Quality of Food.

Based on the findings and results of statistical analysis, the overall assessment of the respondents towards Canteen Management in terms of Quality of Food rendered with an overall mean of (4.20). The result revealed that student respondents were "Often". The result further reveals that the most indicators are needed to improve the quality

of food served in a school canteen. The school canteen manager and staff must know and prepare food that based on the menu. It may be inferred from the findings that student respondents are aware of and value the caliber of the food provided in the school cafeteria. The type of cuisine supplied in the canteen—no more soft drinks and junk food—is what the respondents are accustomed to.

2. Food Preparation

The assessed Quality Food in terms of food preparation was rated as follows: Student respondents with an overall mean (4.01). The assessment fall under “Often.” The conclusion is that thorough and well-planned preparation is required for food preparation in order to offer it cleanly, meet the demands of the students, and be able to serve food that is both nutritional and clean. It is the duty of management as well as the entire workforce to ensure that proper hygiene procedures are followed and implemented when preparing meals. The management is in charge of ensuring that the spaces and tools are maintained tidy.

3. Food Safety/Sanitation

Based on the previous discussions of the results, it shows that the student respondents in assessed Quality of Food in terms of food safety and sanitation was rated: Student respondents overall mean (4.28) and interpreted as “Often.” This means that school canteen responsibility is to maintain food safety and pass along their staff and make sure their customer are well looked after. The conclusion is that thorough and well-planned preparation is required for food preparation in order to offer it cleanly, meet the demands of the students, and be able to serve food that is both nutritional and clean. It is the duty of management as well as the entire workforce to ensure that proper hygiene procedures are followed and implemented when preparing meals. The management is in charge of ensuring that the spaces and tools are maintained tidy.

4. Utensils and Equipment Handling

Based on the findings and results of statistical analysis, the overall assessment of the respondents towards utensils and equipment handling with an overall mean of (4.24) and interpreted as “Often.” It suggests that cleaning and maintaining kitchen utensils and equipment is vital to keep healthy and happy kitchen for every business. This denotes that canteen staff knows the proper cleaning of utensils in order to maintain the cleanliness in the kitchen.

5. Quality of Customer Services

Based on the data presented the assessed Quality of Customer Services rated: student respondents overall mean (4.24) interpreted as “Often.” This indicates that students comfort is practice in the school canteen and staff to sustain kindness, honestly and courteousness in serving the students and ensuring their safety while eating nutritious food it serves.

6. Prices of Commodities

Based on the result on Prices of Commodities the student respondents overall mean of (4.09) interpreted as “Often.” This means that canteen follows the recommendation headed by higher DepEd recommendation for the school canteen. In addition, they exerted right pricing of foods in accordance of its quality and quantity and a competitive price without changing its nutrition value.

7. Utilization of Facilities

Based on the previous discussions of the results, it shows that the student respondents in utilization of facilities with an overall mean (4.13) interpreted as “Often.” This means that proper maintenance and inventories of physical facilities must be given priorities at all times for better canteen services.

8. Summary of Assessment of Student Respondents on Canteen Management

The assessment of student respondents regarding school canteen management obtained a grand mean of 4.17 and interpreted as “Often.” The student respondents’ assessment will base on their school canteen observation and experiences. As far as the school canteen management is concerned it’s duties and responsibilities of the school head, canteen manager and canteen aide to make an evaluation and apply necessary innovation when it comes to the services they are offering to serve clientele better.

The result indicates that there is a need for an improvement in management when it comes to the food preparation of foods and services. Hence, school canteen is the only establishment in the premises that is responsible in promoting healthy diets and positive eating behaviour and provide healthy eating environment to learners, teaching and non-teaching personnel as stated in the policy guidelines of DepEd Order No. 13, s. 2017.

9. Level of Customer Satisfaction in terms of Food Serve

This got an over-all weighted mean of 3.88 that interpreted as “Often.” In the point of view of the students they need to buy or access food in recess time. It suggests that school head and canteen manager observed the shortage of canteen store during recess time so they may put additional place or canteen where students easily buy their foods. Furthermore, customer satisfaction regarding services rendered is very important to support and attain the purpose of the

Department of Education indicated in the DepEd Order No. 8 s. 2007 stating service should be the main consideration for managing the school canteen and helping students to eliminate malnutrition and developing good eating habits.

10. Level of Customer Satisfaction in terms of Staff Attitude

In general, the customer satisfaction garnered over-all mean score of 4.16 interpreted as “Very Satisfied”. It indicates that staff was friendly and always willing to give nice service to the customers. Furthermore, canteen staff is one of the most aspects for the success of canteen management. They may interact with customers and represent the canteen. Customers are likely to visit again the canteen if they are happy with the service provided by the staff.

11. The test of relationship between school canteen management and customer satisfaction were all found that there is significant relationship as basis for operationalizing a food center in Mulanay II as to food serve and staff attitude.

1.6. Conclusions

From the summary of findings, the researcher concluded that: It was found out that the school canteen management and customer satisfaction were significantly related as basis for operationalizing a food center in Mulanay District II as to food serve and staff attitude.

1.7. Recommendations

Based on the gathered information, the researcher recommends that:

1. Students need to be aware to the different food choices sells in the canteen as it help them in promoting healthy lifestyle and educational and or physical performance in their study.
2. The school management considered to implement study about on having healthy food choices toward the awareness and knowledge in promoting a healthy eating habit among all the learners.
3. School administrator may continuously improve the canteen operation thru appropriate services for the welfare of students, teaching/non-teaching personnel and stakeholders as regular customer of the school canteen.
4. Canteen manager/staff may take into consideration the evaluation of the menu offered regularly and check the most and least purchase items. Offer a variety of prices based on the foods choices and preferences of the customers. Provide quality food considering the nutritional value of the item.
5. School head may give priorities to provide clean, convenient and relaxing place for the diners. Schedule check-up dates of tools and equipment and other appliances used in the food service. Ensure adequate lighting and ventilation on the canteen areas.
6. The future researcher may use this study as their reference material and guide in conducting further studies related to canteen management.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Development Process*, 50, 179-211. doi:10.1016/0749-5978 (91)90020-T
- Almanza, B. A. Namkung, Y., Ismail, J. A. & Nelson, D. C. (2007). Clients safe food handling knowledge and risk behavior in a home-delivered meal program. *Journal Of The American Dietetic Association*, 107(5), 816-21
- Bocanin, D., & Kilibarda, N. (2020). Assuring good food handling practices in hospitality, financial costs and employees' attitudes: A case study from Serbia. *Scientific journal "Meat Technology"*, 6(1), 82-94.
- Brener, N., Kuester, S., Miller, C., & Wechsler, H. (2009). Food Service and Food and Beverages Available at School: Results from the School Health Policies and Programs Study 2000, *Journal of School Health*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1746-1561.2001.tb03509.x/abstract>
- Brewer, N., Kwesterm S., & Wechsler, H. (2009). Food service and Foods and Beverages Available at School: Results from the School Health Policies and Programs Study 2000, *Journal of School Health*. Retrieved from <http://onlinelibrary.wiley.com/doi/j.17461561.2001.tb03509.x/abstract>
- Cho, S., Hertzman, J., Erdem, M., & Garriot, P. (2012). A food safety believe model for Latino employees in food service. *Journal of Hospitality and Tourism Research*, 20 (10), 1-19. doi:10.1177/1096348012436378
- Clayton, D., & Griffith, C. (2008). Efficacy of an extended theory of planned behavior model for predicting caterers' hand hygiene practices. *International Journal of Environmental Health research*, 18 (2), 83-98
- Department of Education (2017). Policy and Guidelines on Healthy Food and Beverage Choices in Schools and in DepEd Offices. Retrieved from www.deped.gov.ph
- DepEd Order No. 13, s. 2017 – Policy Guidelines on Healthy Food and Beverage Choices in Schools and in DepEd

Offices

- DepEd Order No. 8, s. 2017 – Revised Implementing Guidelines on the Operation and Management of School Canteen in Public Elementary and Secondary Schools
- Hanes, R. (2008). Food preparation for Hotels, Restaurants and Cafeteria Management, New York: The AVI Publishing Co. Inc.
- Janz, N., & Becker, M. (1984). The health belief model: A decade later: Health Education and Behavior, 11 (1), 1-47. doi:10.1177/109019818401100101
- Maniquiz, A. (2009). Canteen Administration and Operation at Maysan National High School: An Assessment. Philippine Normal University, Manila
- Markieeu. (2013). Introduction for Customers Satisfaction. StudyMode.com. retrieved 09, 2013, from <http://www.studymode.com/essays/Introductuon-For-Customers-Satisfaction-1915293>
- Ogden, J. (2003). Some problems with social cognition models: A pragmatic and conceptual analysis. Health Psychology, 22(40), 424-428.
- Ongotan, Flora Q. The Management and Operation of Secondary Schools Canteens in the First Congressional District, Division of Caloocan City: A Proposed School Canteen Manual Dissertation, Eulogio Amang Rodriguez Institute of Science and Technology, 2013
- Rennie, D.M. (1995). Health education models and food hygiene education. Journal of Royal Society of Health, 115, 75-79. doi:10.1177/146642409511500203
- Scott, S. Proper Cleaning for the Restaurant Industry. Retrieved from <http://smallbusiness.chron.com/proper-cleaning-restaurant-industry-11280.html>

