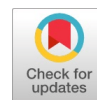


Canteen Management in Public Secondary High Schools of Zone Ii, Division of Zambales

Jerwin E. Acilo, Esmen M. Cabal



Abstract: *The study was conducted to assess the School Canteen Management in Public Secondary High Schools of Zone II, Division of Zambales for the SY 2018-2019. The research utilized descriptive research design and questionnaire as the main instrument in gathering data supplemented by unstructured interviews from one hundred forty two students and one hundred seventeen faculty, parents and canteen operators who were randomly selected. The researcher found out that most of the teachers, parents and canteen owners are adults; female and married. Their monthly family income is meager. Generally they finished high school but majority of them have their BS degree with masteral units and doctorate degree. They belong to Roman Catholics as to their religious affiliation. The canteen owners and teachers have a enough number of experience in the operation of canteen. The student-respondent is generally male, a teenager in Grade 11 and have small amount of money for school daily allowance. The canteen operators and students assessed that on permit and clearance, personnel and staff, price and commodities, food security and standards, quality and quantity of food served, kinds of service render to the customer, transparency and accountability, sharing and proceeds and reports and documentation are evident. There is significant difference on the perceptions of the teachers, parents and canteen operators towards school canteen management as to the evidence of permit and clearance, canteen personnel and staff, quality and quantity of food served, kinds of services rendered to the customers, transparency and accountability when they are group as to type of canteen they operate, age and years on the operation of the canteen and their highest education attainment; significant to age, length of years and type of canteen operation towards price and commodities; however there is a significant difference on their perceptions when they are grouped as to their highest educational attainment and type of canteen operation towards sharing and proceeds; and significant to highest educational attainment, length of years in the canteen operation and type of canteen operation towards report and documentation. There is significant difference on the perception of the teachers, parents, and canteen operators when grouped according to sex on the assessment towards dimension of canteen management as to permit and clearance, personnel and staff, price and commodities, food security and standards, quality and quantity of food served, kinds of service render to the customer, transparency and accountability. There is a significant difference in the perceptions of the teachers, parents and canteen operators towards the evidence in the permit and clearance and food security standard when grouped according to the type of canteen.*

There is a significant difference in the perceptions of teachers, parents and canteen operators towards management evidences in canteen personnel and staff, price and commodities, quality and quantity of food served, kind of services rendered, transparency and accountability and sharing of proceeds when respondents were grouped according to length of years in operation and type of canteen operation with the inclusion of highest educational attainment towards the parameter of sharing proceeds. There is moderate relationship between the perceptions toward management evidences on price and commodities and the quality and quantity of food served as assessed by teacher, parent and canteen operator and student respondents. Based on salient findings and conclusions arrived, the researcher offers the following recommendations that the school heads should prepare a workable and viable long range master plan on canteen operations and personnel functions; the conduct a regular check-up or ocular visits on school canteens particularly on the kitchen area to assure sanitation and cleanliness in food handling is strongly encouraged; that the school officials should be ready to entertain and provide immediate action on complaints against mishandling of food and other concerns related to canteen operation; to provide discounts, combo meals at cheaper price; that the personnel in-charge in cooking should look for organic alternatives of seasoning rather than the use so much amount of glutamate monosodium which affects health and safety condition of the students; that the canteen operators/school management should provide continuous training for crews and staff particularly those newly hired to assure safety on food handling and preparation and finally, future researchers may conduct a similar or parallel study with in-depth and wider in scope so as to validate the findings obtained in the study [1-5].

Keywords: Management, School, Students, Teachers

I. INTRODUCTION

The establishment and operation of a school canteen is important in developing love and interest in buying nutritious and healthy food among students, faculty and the school personnel, making it possible for them to enjoy nutritious and healthy food at affordable prices during the school day. The canteen should also provide a variety of foods and dishes that enhance the skill and knowledge learnt in the classroom about food and nutrition (Maniquiz, 2009) [6-12].

The school canteen should be established to benefit children by making it possible for children to buy nutritious and healthy food at competitive prices, through providing a variety of food and dishes and charging prices which allow moderate profits. It is imperative that the principals, ensure the practice of serving the right kind of food for the students [13].

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A canteen policy which has this as basis would be valuable as they encourage those in control of providing food to reduce health risks from poor nutrition is about having knowledge and skills, making healthy food choices, having healthy attitudes towards food, having access to healthy food choices and balance nutrition (Tasmanian School Canteen Handbook, 2014) [14].

The school canteen should also serve as the showcase of skills and knowledge learned in the classroom about food and nutrition. It can also provide an avenue for parental involvement in the school by using volunteer workers in the school [15]. It is the duty of the school and parents to educate students about nutrition [16]. The school canteen as part of the school community is in a vantage position to make a positive contribution to student health [17].

The school canteen management should encourage the students to buy nutritious and healthy foods at affordable prices. They should prevent the school children from staying off the school campus during recess time and lunch break. Well prepared and clean food are vital feature of an efficiently run school canteen [18]. It should also prepare food that is both appealing and nutritious for the students [19].

Facilities of the school are considered as one of the variables investigated in this study and the literature below given insight on this matter (Maniquiz, 2009 [20]).

II. CONCEPTUAL FRAMEWORK (REVIEW OF RELATED LITERATURE)

Canteen Administration

Dizon (2000) investigated the management of the school canteens in the district of Dinalupihan, Bataan, and their implications to the nutritional needs of the pupils. Based on the finding of this study, the following conclusions were drawn: Majority of the canteen was managed by private individuals [21]. All canteen facilities and equipment were moderately adequate; Food procurement was supervised by outside paid helpers; The canteen managers saw to it that the food to be cooked are washed thoroughly; Majority of the canteens were implementing self-service food serving; and The problems in the operation of the canteens were lack of personnel, lack of time in food preparation, source of water supply and pupil's preference for junk foods instead of nutritious one [22].

Mendoza (2004) made a study on canteen administration and operation in public elementary schools in the division of Lipa city [23]. The descriptive method of research was used in this research with two sets of questionnaires used to gather the perceptions of the respondents [24]. The highest rating was given for the strategic value where the building is located for canteen teachers, the safety of the foods for sale and for non-canteen teachers, accessibility of the building to pupils and teachers. **Statement of the problem**

The study was conducted to make an assessment on the School Canteen Management in Public Secondary High Schools of Zone II, Division of Zambales. Specifically, the study attempted to provide answers to the following questions:

1. What is the profile of the students in terms of:
 - 1.1. Age;
 - 1.2. Sex;
 - 1.3. Grade level;

- 1.4. Daily allowance;
2. What is the profile of the teachers, parents and canteen operators in terms of [25]:
 - 2.1. Age;
 - 2.2. Sex;
 - 2.3. Civil Status;
 - 2.4. Monthly Income;
 - 2.5. Educational Attainment;
 - 2.6. Religious Affiliation;
 - 2.7. Length of experience in canteen operation; and
 - 2.8. Type of Canteen?
3. How is the school canteen Management in Public Secondary High School in Zone II, Division of Zambales described by teachers, parents and canteen operators as to [26]:
 - 3.1. Permit and clearance;
 - 3.2. Canteen personnel and staff;
 - 3.3. Price of Commodities;
 - 3.4. Food Security and Standard;
 - 3.5. Quality and Quantity of Food served;
 - 3.6. Kinds of Services Rendered to Customers;
 - 3.7. Transparency and Accountability;
 - 3.8. Sharing of Proceeds; and
 - 3.9. Reports and Documents?
4. How is the school canteen Management in Public Secondary High Schools in Zone II, Division of Zambales describe by students as to [27]:
 - 4.1. Permit and clearance;
 - 4.2. Canteen personnel and staff;
 - 4.3. Price of Commodities;
 - 4.4. Food Security and Standard;
 - 4.5. Quality and Quantity of Food served;
 - 4.6. Kinds of Services Rendered to Customers; and
 - 4.7. Transparency and Accountability?
5. Is there a significant difference in the School Canteen Management in Public Secondary High School Students of Zone II, Division of Zambales as described by the teacher, parent and canteen operators when grouped according to profile variables? [28]
6. Is there a significant difference in the School Canteen Management in Public Secondary High School as perceived by the student respondents when grouped according to profile variables?
7. Is there significant relationship between the quality and quantity of the food served and the price and commodities? [29]

III. SCOPE AND DELIMITATION

The study focused on the assessment of the management of canteen as perceived by the teachers, parents, school canteen operators and students of Zone II, Division of Zambales [30]. This study was limited to the assessment of the school canteen in terms of management activities, utilization of facilities, quality and quantity of food served, kinds of services rendered and prices of the commodities offered [31]. The study was conducted during the school year 2018-2019 [32].



The researcher limited this assessment to the overall performance of the canteen management [33].

IV. RESEARCH METHODOLOGY

Research Design

The researcher used the descriptive method and gathered information through the use of a survey questionnaire as an instrument, to give the respondents more time to provide their answers freely and independently [34]. The descriptive method was used to assess the administration and operations of school canteen of Zone II, Division of Zambales [35-40]. This research was conducted with the approval of the clientele on the services rendered by the school canteen staff. It gathered the data on the observations of the respondents about how the management handles the daily operations and how they want it to be efficient and maintained so that they continue to uphold its mission and vision [41-45].

Population Sample

The target population of the study includes the students from all year levels, the members of the faculty, parents and canteen operators. To maintain the adequacy and balance of the results of this study, the researcher used the stratified random sampling technique. An equal number of respondents were taken from each stratum of the population. The study was conducted at zone II, Division of Zambales. It covers the public secondary high schools namely: Zambales National High School, Panan National High School and Locloc National High School [46-50]. The target population of the study includes the students from all year levels, the members of the faculty, parents and canteen operators. To maintain the adequacy and balance of the results of this study, the researcher used the stratified random sampling

technique. An equal number of respondents were taken from each stratum of the population.

Instrumentation

The researcher formulated the necessary items of the instrument to measure the variables in the study. A Likert Scale type of questionnaire designed to determine the respondent’s extent of agreement [51-55].

The questionnaire was adopted on the study of Constantino (2019), which was used in her study on Food Court Administration and Operation at NEUST. To improve further the questionnaire, some modifications were made. With this, the researcher then proceeds with the final copies of the questionnaire for distributions among the respondents. It includes: (1) the profile of the teachers, parents and canteen operators (2) profile of the students, (3) the school canteen Management in Public Secondary High School in Zone II, Division of Zambales described by teachers, parents and canteen operators, (4) school canteen Management in Public Secondary High Schools in Zone II, Division of Zambales describe by students, (5) significant difference in the School Canteen Management in Public Secondary High School Students of Zone II, Division of Zambales as described by the teacher, parent and canteen operators when grouped according to profile variables, (6) significant difference in the School Canteen Management in Public Secondary High School as perceived by the student respondents when grouped according to profile, (7) significant relationship between the quality and quantity of the food served and the price and commodities [56-60].

Presentation, Analysis, and Interpretation Of Data

V. SUMMARY OF FINDINGS

Analysis of Variance to test differences on the perception of the teachers, parents, and canteen owner’s respondents towards school canteen management as to sharing and proceeds when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	2.929	5	0.586	1.234	0.298	Accept Ho
	Within Groups	52.710	111	0.475			Not Significant
	Total	55.640	116				
Sex	Between Groups	.899	1	0.899	1.888	0.172	Accept Ho
	Within Groups	54.741	115	0.476			Not Significant
	Total	55.640	116				
Civil Status	Between Groups	0.597	2	0.298	0.618	0.541	Accept Ho
	Within Groups	55.043	114	0.483			Not Significant
	Total	55.640	116				
Family Monthly Income	Between Groups	1.808	5	0.362	0.745	0.591	Accept Ho
	Within Groups	53.832	111	0.485			Not Significant
	Total	55.640	116				
Highest Educational Attainment	Between Groups	8.501	5	1.700	4.003	0.002	Reject Ho
	Within Groups	47.139	111	0.425			Significant
	Total	55.640	116				
Religion	Between Groups	1.658	5	0.332	0.682	0.638	Accept Ho
	Within Groups	53.982	111	0.486			Not Significant
	Total	55.640	116				
Length of Years on Operation	Between Groups	4.354	5	0.871	1.885	0.103	Accept Ho
	Within Groups	51.286	111	0.462			Not Significant
	Total	55.640	116				
Type of Canteen	Between Groups	7.633	3	2.544	5.989	0.001	Reject Ho
	Within Groups	48.006	113	0.425			Significant
	Total	55.640	116				



Analysis of Variance to test differences on the perception of the teachers, parents, and canteen owner's respondents towards school canteen management as to Reports and documentation when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	4.908	5	0.982	1.934	0.094	Accept Ho
	Within Groups	56.328	111	0.507			Not Significant
	Total	61.236	116				
Sex	Between Groups	0.630	1	0.630	1.196	0.276	Accept Ho
	Within Groups	60.605	115	0.527			Not Significant
	Total	61.236	116				
Civil Status	Between Groups	0.591	2	0.296	0.556	0.575	Accept Ho
	Within Groups	60.644	114	0.532			Not Significant
	Total	61.236	116				
Family Monthly Income	Between Groups	2.651	5	.530	1.004	0.419	Accept Ho
	Within Groups	58.585	111	0.528			Not Significant
	Total	61.236	116				
Highest Educational Attainment	Between Groups	6.009	5	1.202	2.415	0.040	Reject Ho
	Within Groups	55.227	111	0.498			Significant
	Total	61.236	116				
Religion	Between Groups	2.142	5	0.428	0.805	0.549	Accept Ho
	Within Groups	59.094	111	0.532			Not Significant
	Total	61.236	116				
Length of Years on Operation	Between Groups	7.082	5	1.416	2.903	0.017	Reject Ho
	Within Groups	54.154	111	0.488			Significant
	Total	61.236	116				
Type of Canteen	Between Groups	9.778	3	3.259	7.158	0.000	Reject Ho
	Within Groups	51.457	113	0.455			Significant
	Total	61.236	116				

Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to permit and clearance when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	1.741	4	0.435	1.001	0.409	Accept Ho
	Within Groups	59.566	137	0.435			Not Significant
	Total	61.307	141				
Sex	Between Groups	4.160	1	4.160	10.191	0.002	Reject Ho
	Within Groups	57.148	140	0.408			Significant
	Total	61.307	141				
Daily Allowance	Between Groups	0.590	5	0.118	0.264	0.932	Accept Ho
	Within Groups	60.717	136	0.446			Not Significant
	Total	61.307	141				
Grade Level	Between Groups	0.000	1	0.000	0.000	0.991	Accept Ho
	Within Groups	61.307	140	0.438			Not Significant
	Total	61.307	141				

Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to canteen personnel and staff when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	0.548	4	0.137	0.317	0.866	Accept Ho
	Within Groups	59.227	137	0.432			Not Significant
	Total	59.775	141				
Sex	Between Groups	6.162	1	6.162	16.090	0.000	Reject Ho
	Within Groups	53.613	140	0.383			Significant
	Total	59.775	141				
Daily Allowance	Between Groups	0.341	5	0.068	0.156	0.978	Accept Ho
	Within Groups	59.433	136	0.437			Not Significant
	Total	59.775	141				
Grade Level	Between Groups	.675	1	0.675	1.599	0.208	Accept Ho
	Within Groups	59.100	140	0.422			Not Significant
	Total	59.775	141				



Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to price and commodities when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	0.474	4	0.119	0.259	0.904	Accept Ho
	Within Groups	62.776	137	0.458			Not Significant
	Total	63.250	141				
Sex	Between Groups	6.055	1	6.055	14.821	0.000	Reject Ho
	Within Groups	57.195	140	0.409			Significant
	Total	63.250	141				
Daily Allowance	Between Groups	2.973	5	0.595	1.341	0.251	Accept Ho
	Within Groups	60.277	136	0.443			Not Significant
	Total	63.250	141				
Grade Level	Between Groups	0.020	1	0.020	0.043	0.835	Accept Ho
	Within Groups	63.230	140	0.452			Not Significant
	Total	63.250	141				

Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to food security and standards when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	0.780	4	0.195	0.408	0.803	Accept Ho
	Within Groups	65.405	137	.477			Not Significant
	Total	66.185	141				
Sex	Between Groups	2.717	1	2.717	5.992	0.016	Reject Ho
	Within Groups	63.468	140	0.453			Significant
	Total	66.185	141				
Daily Allowance	Between Groups	0.629	5	0.126	0.261	0.934	Accept Ho
	Within Groups	65.556	136	0.482			Not Significant
	Total	66.185	141				
Grade Level	Between Groups	0.310	1	0.310	0.659	0.418	Accept Ho
	Within Groups	65.875	140	0.471			Not Significant
	Total	66.185	141				

Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to quality and quantity of food served when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	1.277	4	0.319	0.649	0.629	Accept Ho
	Within Groups	67.381	137	0.492			Not Significant
	Total	68.657	141				
Sex	Between Groups	11.187	1	11.187	27.252	0.000	Reject Ho
	Within Groups	57.470	140	0.411			Significant
	Total	68.657	141				
Daily Allowance	Between Groups	0.404	5	0.081	0.161	0.976	Accept Ho
	Within Groups	68.253	136	0.502			Not Significant
	Total	68.657	141				
Grade Level	Between Groups	0.183	1	0.183	0.374	0.542	Accept Ho
	Within Groups	68.474	140	0.489			Not Significant
	Total	68.657	141				

Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to kinds of services rendered to the customers when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	1.027	4	0.257	0.539	0.707	Accept Ho
	Within Groups	65.250	137	0.476			Not Significant
	Total	66.277	141				
Sex	Between Groups	6.335	1	6.335	14.797	0.000	Reject Ho
	Within Groups	59.942	140	0.428			Significant
	Total	66.277	141				
Daily Allowance	Between Groups	1.042	5	0.208	0.434	0.824	Accept Ho
	Within Groups	65.235	136	0.480			Not Significant
	Total	66.277	141				
Grade Level	Between Groups	0.250	1	0.250	0.531	0.467	Accept Ho
	Within Groups	66.027	140	0.472			Not Significant
	Total	66.277	141				



Analysis of Variance to test differences on the perception of the student respondents towards school canteen management as to transparency and accountability when grouped according to profile variables

Sources of Variations		SS	df	MS	F	Sig.	Decision
Age	Between Groups	0.598	4	0.149	0.322	0.863	Accept Ho
	Within Groups	63.544	137	0.464			Not Significant
	Total	64.142	141				
Sex	Between Groups	3.396	1	3.396	7.827	0.006	Reject Ho
	Within Groups	60.746	140	0.434			Significant
	Total	64.142	141				
Daily Allowance	Between Groups	0.401	5	0.080	0.171	0.973	Accept Ho
	Within Groups	63.741	136	0.469			Not Significant
	Total	64.142	141				
Grade Level	Between Groups	0.278	1	0.278	0.609	0.437	Accept Ho
	Within Groups	63.864	140	0.456			Not Significant
	Total	64.142	141				

Pearson Product Moment Coefficient of Correlation to test relationship between the price and quality and quality food served

Sources of Classification		Price	Quality and Quantity
Teachers, Parents, and Canteen Owners	Pearson Correlation	1	0.530**
	Sig. (2-tailed)		0
	N	117	117
Student	Pearson Correlation	0.664**	1
	Sig. (2-tailed)	0	
	N	142	142

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

1. Profile of the Teachers, Parents, and Canteen Owners – Respondents

- 1.1. Age.** There were 26 or 22.20%, from age group of 46 years old and above; 37 or 31.60%, 41-45 years old; 29 or 24.80%, 36-40 years old; 8 or 6.80%, 31-35 years old; 5 or 4.30%, 26-30 years old and 12 or 10.30%, from age group of 21-25 years old. The computed mean age of the respondents was 39.50% years old.
- 1.2. Sex.** Majority with 95 or equivalent to 81.20%, are females and 22 or 18.80% are males.
- 1.3. Civil Status.** Majority with 80 or 68.40% are married; 32 or 27.40%, single and 5 or 4.30% are separated.
- 1.4. Family Monthly Income.** Majority with 82 or equivalent to 70.10 with family income of 24,000 and below; 4 or 3.40%, from 46,000 and above; 5 or 4.30%, 40,000-45,000; 1 or 0.90%, 35,000-40,000; 7 or 6.00%, 30,000-35,000; and 18 or 15.40% with family income of 25,000-30,000.
- 1.5. Highest Educational Attainment.** Mostly with 44 or 37.60% are high school graduate; 43 or 36.80% are BS degree or college graduate; 20 or 17.105, BS degree with MA units; 6 or 5.10%, Masteral degree holders; 1 or 0.90%, MA with Doctoral degree; and 3 or 2.60%, are Doctoral degree holders.
- 1.6. Religion.** Majority with 82 or equivalent to 70.10% are Roman Catholic; 15 or 12.80%, Iglesia ni Cristo; 3 or 2.60% are Baptist; 14 or 12.00%, Born Again; 1 or 0.90% is a Mormon; and 2 or 1.705 are Protestants.

1.7. Length of Years on Canteen Operation.

Majority with 75 or equivalent to 64.10 are teachers who are parents and are not operating the canteen; 2 or 1.70% with 16-20 years of operating canteen; 5 or 4.30%, 11-15 years; 1 or 0.90%, 6-10 years of operation; 11 or 9.40, with 3-5 years of operation and 23 or 19.70% with 1-2 years of canteen operation.

1.8. Types of Canteen Operation. Mostly with 38 or 32.50 where the canteen is managed by a TLE teachers; 44 or 37.60%, the canteen is a cooperative type run by teachers and personnel who are members of the school cooperative; 14 or 12.00%, the canteen is managed by the administrator of the school; and 21 or 17.90%, the canteen is operated by a private concessioner.

2. Profile of the Student Respondents

- 2.1. Sex.** Majority with 98 or equivalent to 69.00% are males and 44 or 31.00% are females.
- 2.2. Age.** Majority with 99 or 39.72% are from age group of 16-17 years old; 3 or 2.11, 22 years old and above; 5 or 3.52% are from 20-21 years old and 35 or 24.65%, from 18-19 years old. The computed mean age of the respondents was 17.30 years old.
- 2.3. Grade Level.** Majority with 79 or 55.60% are from Grade 11 while 63 or 44.40% from Grade 12.



2.4. Daily Allowance. Mostly with 32 or 22.50% with daily allowance of Php101.00-150.00; 4 or 2.805, Php301.00 and above; 1 or 0.70%, Php251.00-300.00; 7 or 4.90%, Php151.00-200.00; and 2 or 1.40% with daily allowance of Php201.00-250.00 daily.

3. Perception Teachers, Parents, and Canteen Owners Respondents towards School Canteen Management

3.1. Permit and Clearance. The respondents assessed “evident” on indicator where the canteen pay the necessary bills payment for permission to operate, like electricity, water, salaries of personnel and staff, with mean of 3.11 and ranked 1st while least on indicator, the canteen staff and operators seek medical examination from a medical doctor, 2.58 and ranked 5th. The computed overall weighted mean on the responses towards permit and clearance was 2.86 with qualitative interpretation of “evident”.

3.2. Canteen Personnel and Staff. The respondents assessed “evident” on indicator where canteen personnel and staff wear clean and proper attire white shirt, blouse, colored pants with hairnet, apron and appropriate footwear manifested on the weighted mean value of 2.84 and ranked 1st while least on indicator where canteen personnel and staff wear identification card with photo while inside the premises of the canteen, with mean of 2.38 and ranked 5th. The computed overall weighted mean on the responses towards canteen personnel and staff was 2.63 with qualitative interpretation of “evident”.

3.3. Price and Commodities. The respondents assessed “evident” on indicator where healthy canteen choices are sold at competitive prices manifested on the weighted mean value of 2.85 and ranked 1st while least on indicator where canteen offers cost saving meals to the customers as in value or combo meal, with mean of 2.75 and ranked 5th. The computed overall weighted mean on the responses towards price of commodities was 2.63 with qualitative interpretation of “evident” [61-62].

3.4. Food Security and Standard. The respondents assessed “evident” on indicator where canteen uses equipment, utensils, facilities, furniture and other supplies in canteen operators manifested on the weighted mean value of 3.03 and ranked 1st while least on indicator where canteen regulates the use of magic sarap and other monosodium glutamate, with mean of 2.69 and ranked 5th. The computed overall weighted mean on the responses towards price of commodities was 2.91 with qualitative interpretation of “evident”.

3.5. Quality and Quantity of food Served. The respondents assessed “evident” on indicator where canteen serves foods that are fresh, newly cooked or prepared manifested on the weighted mean value of 3.06 and ranked 1st while least on indicator where canteen staff members undertake food safety training to ensure quality and maintain food safety, with mean of 2.79 and

ranked 5th. The computed overall weighted mean on the responses towards quality and quantity of food served was 2.91 with qualitative interpretation of “evident”.

3.6. Kinds of Services Rendered to Customers. The respondents assessed “evident” on indicator where payments are properly and accurately changed and counted manifested on the weighted mean value of 3.01 and ranked 1st while least on indicator where ventilation and lightning facilities to make the diners comfortable are provided, with mean of 2.75 and ranked 5th. The computed overall weighted mean on the responses towards kinds of services rendered to customers was 2.94 with qualitative interpretation of “evident”.

3.7. Transparency and Accountability. The respondents assessed “evident” on indicator where canteen has an organize school level auditing composed of the member faculty, president head, TLE, Math department manifested on the weighted mean value of 2.92 and ranked 1st while least on indicator where statement of receipts and disbursements are presented by transparency, with mean of 2.70 and ranked 5th. The computed overall weighted mean on the responses towards transparency and accountability was 2.77 with qualitative interpretation of “evident”.

3.8. Canteen Sharing. The respondents assessed “evident” on indicator where canteen spend 35% of the income for feeding program manifested on the weighted mean value of 2.72 and ranked 1st while least on indicator where the A.E. Instructional Fund of 10%, with mean of 2.60 and ranked 10th. The computed overall weighted mean on the responses towards canteen sharing was 2.66 with qualitative interpretation of “evident”.

3.9. Reports and Documents. The respondents assessed “evident” on indicator where the financial statements and Expenses is presented for proper auditing manifested on the weighted mean value of 2.79 and ranked 1st while least on indicator where the Statement of Cash Flows is presented for proper auditing with mean of 2.62 and ranked 5th. The computed overall weighted mean on the responses towards reports and documents was 2.71 with qualitative interpretation of “evident”.

4. Perception of the Student Respondents School Canteen Management

4.1. Permit and Clearance. The respondents assessed “evident” on indicator where the canteen has a sanitary permit from the local government health and sanitation unit manifested on the weighted mean value of 2.87 and ranked 1st while least on indicator where the canteen staff and operators seek medical examination from a medical doctor with mean of 2.44 and ranked 5th.



The computed overall weighted mean on the responses towards permit and clearance was 2.73 with qualitative interpretation of “evident”.

- 4.2. **Canteen Personnel and Staff.** The respondents assessed “evident” on indicator where the canteen personnel and staff wear clean and proper attire white shirt, blouse, colored pants with hairnet, apron and appropriate footwear manifested on the weighted mean value of 2.75 and ranked 1st while least on indicator where the canteen staff and operators wear identification card with photo while inside the premises of the canteen with mean of 2.66 and ranked 5th. The computed overall weighted mean on the responses towards canteen personnel and staff was 2.73 with qualitative interpretation of “evident”.
- 4.3. **Price and Commodities.** The respondents assessed “evident” on indicator where variation in prices of food depends on quality and quantity manifested on the weighted mean value of 2.84 and ranked 1st while least on indicator where the canteen offers cost saving meals to the customers as in value or combo meal with mean of 2.39 and ranked 5th. The computed overall weighted mean on the responses towards price of commodities was 2.69 with qualitative interpretation of “evident”.
- 4.4. **Food Security and Standard.** The respondents assessed “evident” on indicator where canteen uses covers and containers for safekeeping manifested on the weighted mean value of 2.89 and ranked 1st while least on indicator where the canteen regulates the use of magic sarap and other monosodium glutamate with mean of 2.60 and ranked 5th. The computed overall weighted mean on the responses towards food security and standards was 2.78 with qualitative interpretation of “evident”.
- 4.5. **Quality and Quantity of Food served.** The respondents assessed “evident” on indicator where canteen serves foods that are fresh, newly cooked or prepared manifested on the weighted mean value of 2.93 and ranked 1st while least on indicator where the canteen staff members undertake food safety training to ensure quality and maintain food safety with mean of 2.69 and ranked 5th. The computed overall weighted mean on the responses towards quality and quantity of food served was 2.79 with qualitative interpretation of “evident”.
- 4.6. **Kinds of Services Rendered to Customers.** The respondents assessed “evident” on indicator where safety and good quality of equipment and facilities are maintained manifested on the weighted mean value of 2.84 and ranked 1st while least on indicator where the suggestions and easily manage complaints are entertained with mean of 2.54 and ranked 5th. The computed overall weighted mean on the responses towards kinds of service rendered to customers was 2.69 with qualitative interpretation of “evident”.
- 4.7. **Transparency and Accountability.** The respondents assessed “evident” on indicator where canteen has an organize school level

auditing composed of the member faculty, president head, TLE, Math department manifested on the weighted mean value of 2.75 and ranked 1st while least on indicator where the schedule of school share program received from canteen are properly documented with mean of 2.50 and ranked 5th. The computed overall weighted mean on the responses towards transparency and accountability was 2.61 with qualitative interpretation of “evident”.

5. Test of Differences on the perception of the teachers, parents, and canteen owners respondents towards school canteen management.

- 5.1. **Permit and Clearance.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, and religion manifested on the computed P-value of 0.729, 0.739, 0.686, 0.503, 0.484, 0.253, and .0381 which all are higher than 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to type of canteen operation manifested on the P-value of 0.000 which is lower than (<) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.2. **Canteen Personnel and Staff.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, religion, and length of years of operation manifested on the computed P-value of 0.465, 0.428, 0.868, 0.175, 0.278, and 0.960 which are higher than (>) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to length of years of operation and type of canteen operation manifested on the P-value of 0.043 and 0.001 which are lower than (<) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.3. **Price and Commodities.** There is no significant difference when grouped according to sex, civil status, family monthly income, highest educational attainment, and religion manifested on the computed P-value of 0.744, 0.080, 0.161, 0.295, and 0.940 which are higher than (>) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to age, length of years of operation and type of canteen operation manifested on the P-value of 0.015, 0.022 and 0.001 which are lower than (<) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.

- 5.4. Food Security and Standard.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, religion and length of years of operation manifested on the computed P-value of 0.219, 0.843, 0.412, 0.335, 0.556, 0.354 and 0.059 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to type of canteen operation manifested on the P-value of 0.010 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.5. Quality and Quantity of Food Served.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, and religion manifested on the computed P-value of 0.340, 0.341, 0.963, 0.907, 0.269, and 0.166 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to length of years of operation and type of canteen operation manifested on the P-value of 0.023 and 0.013 which are lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.6. Kinds of Services rendered to the Customer.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, and religion manifested on the computed P-value of 0.096, 0.639, 0.829, 0.909, 0.325, and 0.271 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to length of years of operation and type of canteen operation manifested on the P-value of 0.009 and 0.006 which are lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.7. Transparency and Accountability.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, highest educational attainment, and religion manifested on the computed P-value of 0.121, 0.601, 0.714, 0.796, 0.683 and 0.100 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to length of years of operation and type of canteen operation manifested on the P-value of 0.034 and 0.000 which are lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 5.8. Sharing and Proceeds.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, religion and length of years of operation manifested on the computed P-value of 0.298, 0.172, 0.541, 0.591, and 0.638 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis

is Accepted. On the other hand, there is significant difference when grouped according to highest educational attainment and type of canteen operation manifested on the P-value of 0.002 and 0.001 which are lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.

- 5.9. Reports and Documentation.** There is no significant difference when grouped according to age, sex, civil status, family monthly income, religion and length of years of operation manifested on the computed P-value of 0.094, 0.276, 0.575, 0.419 and 0.549 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to highest educational attainment, length of years of operation and type of canteen operation manifested on the P-value of 0.040, 0.017 and 0.000 which are lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.

6. Test of Differences on the perception of the student respondents towards school canteen management.

- 6.1. Permit and Clearance.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.409, 0.932 and 0.991 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.002 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 6.2. Canteen Personnel and Staff.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.866, 0.978 and 0.208 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.000 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 6.3. Price and Commodities.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.904, 0.251, and 0.835 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.000 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.



- 6.4. Food Security and Standard.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.803, 0.934 and 0.418 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.016 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 6.5. Quality and Quantity of Food Served.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.629, 0.976 and 0.542 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.000 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 6.6. Kinds of services rendered to the customer.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.6707, 0.824 and 0.467 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.000 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 6.7. Transparency and Accountability.** There is no significant difference when grouped according to age, daily allowance and grade level manifested on the computed P-value of 0.863, 0.973 and 0.437 which are higher than ($>$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Accepted. On the other hand, there is significant difference when grouped according to sex manifested on the P-value of 0.006 which is lower than ($<$) 0.05 Alpha Level of Significance, hence the Null Hypothesis is Rejected.
- 7. Test of Relationship.** On the assessment of teachers, parents, and canteen owners, there is moderate relationship between price and quality and quantity food served manifested in the computed Pearson r value of 0.530**. The computed P-value of 0.000 which is lower than ($<$) 0.05 Alpha level of significance, therefore the Null Hypothesis is rejected, there is significant relationship. On the other hand, the assessment of student respondents, there is moderate relationship between price and quality and quantity food served manifested in the computed Pearson r value of 0.664**. The computed P-value of 0.000 which is lower than ($<$) 0.05 Alpha level of significance, therefore the Null Hypothesis is rejected, there is significant relationship.

VI. CONCLUSIONS

Based on the summary of the investigations conducted, the researcher have concluded that:

1. Most of the teachers, parents and canteen owners are adults; female and married. Their monthly family income is meager. Generally they finished high school but majority of them have their BS degree with masteral units and doctorate degree. They belong to Roman Catholics as to their religious affiliation. The canteen owners and teachers have a enough number of experience in the operation of canteen.
2. The student-respondent is a young male, a teenager in Grade 11 and have small amount of money for school daily allowance.
3. The canteen operators assessed that on permit and clearance, personnel and staff, price and commodities, food security and standards, quality and quantity of food served, kinds of service render to the customer, transparency and accountability, sharing and proceeds and reports and documentation are evident.
4. The student respondents assessed in the canteen operation that permit and clearance, personnel and staff, price and commodities, food security and standards, quality and quantity of food served, kinds of service render to the customer, transparency and accountability are evident.
5. There is significant difference when grouped according to length of years of operation and type of canteen operation towards canteen personnel and staff, quality and quantity of food serve, kinds of services rendered to the customers, transparency and accountability; significant on type of canteen towards permit and clearance; significant to age , length of years and type of canteen operation towards price and commodities; significant on highest educational attainment and type of canteen operation towards sharing and proceeds; and significant to highest educational attainment, length of years in the canteen operation and type of canteen operation towards report and documentation.
6. There is significant difference when grouped according to sex on the assessment towards dimension of canteen management as to permit and clearance, personnel and staff, price and commodities, food security and standards, quality and quantity of food served, kinds of service render to the customer, transparency and accountability.
7. There is moderate relationship between prices and commodities and the quality and quantity of food served.

RECOMMENDATIONS

Based on salient findings and conclusions arrived, the researcher offers the following recommendations:



1. That the school heads should prepare a workable and viable long range master plan on canteen operations and personnel functions.
2. The conduct a regular check-up or ocular visits on school canteens particularly on the kitchen area to assure sanitation and cleanliness in food handling is strongly encouraged.
3. Be ready to entertain and provide immediate action on complaints against mishandling of food and other concerns related to canteen operation
4. Provide discounts, combo meals at cheaper price.
5. Personnel in-charge in cooking should look for organic alternatives of seasoning rather than the use so much amount of glutamate monosodium which affects health and safety condition of the students.
6. Canteen operators/school management should provide continuous training for crews and staff particularly those newly hired to assure safety on food handling and preparation.
7. Future researchers may conduct a similar or parallel study with in-depth and wider in scope so as to validate the findings obtained in the study.

Policy Note

School Canteen Management in Public Secondary High Schools of Zone II, Division of Zambales

NOTE: This study focused on the status of existing practices of canteen management in the public secondary high school of Zone II, Division of Zambales as perceived by teachers, students and canteen operators.

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