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The Business Management of Local Government Unit Operated Slaughterhouses in Cities of Region V, Philippines

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ABSTRACT

This study assessed the operations management of Local Government Unit (LGU) slaughterhouses in the Bicol Region. It specifically examined: compliance with standards in human resources, marketing, finance, and operations; priority management areas for intervention; and recommendations for improvement. Data were gathered through surveys, interviews, and observations, with 161 slaughterhouse operators as respondents, and analyzed using descriptive statistics. Findings indicate that most LGU slaughterhouses do not fully comply with government standards. Slaughterhouses in Iriga, Legazpi, and Tabaco partially meet standards but lack complete facilities, including drainage, lagoons, sterilizers, and meat handling equipment. Cleaning is insufficient, leaving floors unhygienic, while personnel evaluation and training are not conducted. Marketing services are limited, with no "bantay karne" (meat watcher) programs or public awareness campaigns. Revenue and service pricing are guided by local ordinances. Conversely, slaughterhouses in Ligao, Naga, and Sorsogon comply with standards due to good manufacturing practices (GMP), sanitation programs, complete facilities, and trained personnel with performance evaluations. Priority areas needing improvement include human resource management, marketing services, financial procedures, and facility maintenance. The study recommends implementing personnel evaluations, training programs for "bantay karne," improved sanitation practices, and a quality management monitoring checklist to identify and address gaps. Annual monitoring is proposed to ensure consistent improvements in LGU-operated slaughterhouses.

Keywords
Compliance Standards
Human Resource
Marketing Services
Operations Management
Performance Evaluation
Slaughterhouse

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Introduction

Modern effective managers utilize quality management in all types of organizations [1] where a level of trust is needed by management and staff to create best practices and quality programs based on particular standards. This helps produce a working system where operators focus on methods and approaches. Ubaid & Dweiri [2] also expressed that a performing organization defines common principles that describe the best practices where continuous improvement in operational work processes results in an innovative balanced system with good financial results. Local public enterprises are organizations that are wholly or partially owned and managed by local governments to sell a product or service purposely to meet a perceived specific public demand like in slaughterhouse management [3]. Slaughterhouses are local enterprises established to grant slaughtering services to animals for food consumption. The slaughterhouse facilities allow slaughtering procedures including, dressing, cutting, inspection, and preservation. The local government units (LGUs) in conformance to Republic Act (R.A.) 7160, known as the Local Government Code and Executive Order 137, supervise the physical construction of the abattoir facility, management, its administration and operation of slaughterhouses, meat examination, and inspection, meat distribution, and post abattoir control. To ensure safe animal products, the LGUs also monitor, evaluate, and collect fees and penalty charges based on national standards and policies (Sec.10 DA-Administrative Order No. 28, 2005). Slaughterhouses are accredited by the National Meat Inspection Service (NMIS) which follows and implements provisions under the Republic Act 9296, otherwise known as Meat Inspection Code of the Philippines. The accredited slaughterhouses in local government units classified as “AA” are those qualified for domestic trade and are under the Code of Sanitation of the Philippines (P.D. 856) for waste management standards [4].

Efficient and effective local public units can carry out public slaughtering services at the local government level with a substantial effect on human development outcomes and national growth [5]. They emphasized that prevailing economic enterprises all over the Philippines function at profit loss; revenue collection efficiency is low and is frequently subsidized by the

local budget. As such, several slaughterhouses are unsanitary, unhygienic, crowded, fire hazards, deteriorated, and poorly maintained.

To ensure continuous production and supply of safe and quality meat to Filipinos for consumption, the management of slaughterhouses should comply with the procedures set by the NMIS based on RA 9296, Executive Order 137, for local government with their ordinances on slaughterhouses and by the Philippine Agriculture Engineering Standard. Risk can be removed if slaughterhouses function properly and produce meat products according to strict hygiene and environmental standards [6]. The Department of Agrarian (DA) Secretary Proceso Alcala even suggested that consumers purchase meat and meat products from LGU-registered slaughterhouses and meat markets to avoid "hot" and "double dead" meat. Meat is considered as "hot meat" if it is not slaughtered in an accepted facility. Meats should be bought from registered meat stores and it is best to look for meat and meat products examination certificates and marks of inspection to be assured of their quality [7]. With the foregoing conditions of abattoir operation, there is a need to study the management practices of abattoirs to ensure safe meat production.

A. Research Problem and Purpose of the Study

As stated by Brillantes & Sonco [5], there is a great effect on human development and the growth of the national economy when public units effectively and efficiently deliver their public services such as animal slaughtering. However, some of these enterprises in the Philippines operate at low revenue collection, have no profit, and are even subsidized by the local budget. These slaughterhouses are also unsanitary, unhygienic, congested, poorly maintained with no specific staff, and lack personnel training. Hence, these slaughterhouses do not operate within the standards and procedures set by the government to deliver safe and hygienic meat products to consumers. With these, the study aimed to conduct a study on the areas of concern in the slaughtering areas. Specifically, the study aimed to evaluate the management of LGU-operated slaughterhouses in the Bicol Region or Region V. It specifically sought to answer the following questions: (1) What is the level of compliance of Local Government Unit slaughterhouses concerning the standards set in R.A. 9296, E.O 137, PAES 2000:411 and local ordinances along Human Resource Management, Marketing Management, Financial Management and Operation management; (2) What are the priority management areas for intervention? and (3) What recommendations can be provided to improve the priority management areas in LGU-operated Slaughterhouse?

Literature Review

This management in slaughterhouses is guided by government-set standards focused on indicators under human resources management, marketing, finance, and operation. The literature on human resources focused more on training. Bello & Oyedemi [8], Fuhrman [9],

and the Bureau of Animal Industry [10] discussed the need for training of slaughterhouse personnel. Bosch et al. [11] discussed wages and compensation in slaughterhouse management. Only the Food and Agriculture Organization emphasized the hiring and selection of slaughterhouse personnel and their evaluation. The marketing management's written information revealed price determination based on Republic Act 9296 and Executive Order 137 as mentioned with specific ordinances followed by local governments with slaughterhouse facilities. Costales [12] mentioned strong market links through promotion, marketing is not just an advertising campaign but should result in revenues. While there were more discussions on slaughtering procedures by FAO, the NMIS [4] discussed the slaughtering of cattle and hogs with the support of needed facilities for slaughtering. Marketing was also mentioned by the Bureau of Animal Industry [10] supported by NMIS [4] who all pointed out that abattoirs can boost promoting the district through standard compliance.

Under financial management, discussions were on revenue collection based on R.A. 9296, executive orders, and local ordinances by Collado et al. [13]. They discussed profit-making through adapting privately owned enterprises. The Food and Agriculture Organization [14], and Costales [12] identified the increasing demand for meat consumption due to increasing population and urbanization. Discussion on operations management by NMIS [4], Arfmann & Topolansky [15], and the Food and Agriculture Organization [14] focused on the need for facilities based on standards needed for operation. Fuhrman [9] focused on the layout and design of slaughterhouses. There was also more discussion based on slaughterhouse management based on standards as emphasized by Aquino & Abeleda [7], NMIS [4], and the Bureau of Animal Industry [10]. There was more evidence of the successful application of the quality management principle in service sectors allowing continuous improvement, but not in local public service enterprises.

Methods

The methods and procedures used and applied in the study cover descriptive research design to evaluate the level of management practices in LGU-operated abattoirs in the Bicol region based on the set government standards. The respondents A total of 161 were interviewed using a questionnaire. The respondents who answered the structured questionnaires included city veterinarians involved in the slaughterhouse operations, heads of slaughterhouse operations, other NMIS officers/Meat Inspectors, butchers, maintenance officers including grass cutters, slaughterhouse collection officers, abattoir disbursement officers, holding area security officers, and facility clerks in a respective slaughterhouse. Total enumeration was applied in the study in all operators of slaughterhouses in the region. As per the record, Naga City has the largest number of personnel in the operation with 34 employees,

followed by Sorsogon with 27 personnel, Legazpi City with 26 personnel, Iriga, Masbate, and Tabaco with 19 personnel, and Ligao City with 17 personnel.

The data-gathering procedure was made through the distribution and collection of self-administered questionnaires to respondents in the seven local government units. Approval for data gathering from the city mayors, officer-in-charge, city veterinary, or the slaughter heads was secured before the actual visit. The slaughterhouse had gathered all personnel directly connected with the slaughterhouse for a short meeting regarding the data-gathering procedure after the work duty. It was followed by actual informal interviews with key informants using the guide questionnaire and site observation using the prepared checklist as a verification tool. The administration of the survey questionnaire was conducted during an official meeting called by the facility operations head. Aside from the structured survey questionnaire, the researcher conducted an informal interview with the use of a semi-structured guide questionnaire to confirm and verify documented information and procedures in the abattoir management practices with the set government standards. The observation was done by actual site observation with the use of a checklist to confirm the management system. Records and documents were verified as observed using the guide checklist.

The statistical treatment used in the study includes a rating scale based on perceived management practices identified from the responses of the slaughterhouse operators along four management areas based on the set government standards using the Likert-rating scale. To obtain the mean on different variables in the four management practices, the weighted mean was computed. The t-statistics were used in the study to test the difference in the level of perceived compliance with the standards. A single tail was used to test the significance among the variables with a .05 percent margin of error with p-values.

Results and Discussion

It is presented here the results of the collected primary data from the respondents based on the perceived level of management practices of abattoir per city along with human resources, marketing, finance, and operations management. Discussion on management practices with gaps from the set government standards were also presented as priority areas for intervention. The management practices results responses of LGU operators were presented per city.

A. Iriga City

This slaughterhouse was given the “AA” classification standard but has an expired certification since 2011 with plans for renewal. Table 2 shows the mean values of management practices in the city slaughterhouse with an average mean of 3.39 which is interpreted as partially compliant with the standards. The financial management is the strength of this abattoir at full compliance as guided by local ordinance on slaughterhouse operation and

budget ordinance. Human resource management has weak practices at 2.72 with partial compliance. Marketing at 3.73 shows that standards were mostly complied while at 2.94, the operations management is partially compliant. With a five percent margin of error, T-statistics was 4.65 at 1-tail which is greater than the critical value of 1.943, which implies that the aggregate management practices data have significant differences in the level of compliance. This means that the abattoir management practices are not in full compliance.

Specifically, under human resources on selection and hiring procedure, the mean value of 4.10 shows that practices were mostly in compliance with Chapter 3, Section 8 of R.A. 9296, the licensing requirement for meat handlers, and training and certificate requirements for personnel as per E.O 137, Sections 4e and 6. The hiring and selection were done by the LGU human resource office with recommendations from Punong Barangay and the city mayor. Personnel salaries were based on the position and workload with an aggregate mean value of 4.05 which is mostly in compliance with the standard as reflected in the approved budget allocation for salaries and wages, cash gifts, and bonuses concerning Rule 11.4, Section 11, Chapter 10 of R.A. 9296. The personnel were classified either as permanent or casual employees. Training and workshop programs have a mean of 1.73 which is not at all in compliance with the training requirement and its information based on Chapter 3, Section 8, Rule 5 of R.A. 92926, and E.O 137 on Section 6. There were no records of training related to slaughtering from 2011 in this slaughterhouse due to the availment of NMIS training as it was not incorporated in the budget allocation.

Table 1. Slaughterhouse Management in Iriga City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**2.72**	**Partially Compliant**
1. Selection and Hiring	4.10	Mostly Compliant
2. Training and Workshop Program	1.73	Not at all Compliant
3. Personnel Evaluation	1.00	Not at all Compliant
4. Reward System	4.05	Mostly Compliant
Marketing Management	**3.73**	**Mostly Compliant**
1. Pricing	5.00	Fully Compliant
2. Service Procedure	3.48	Mostly Compliant
3. Promotion of Service	2.50	Hardly Compliant
4. Place of Distribution	3.95	Mostly Compliant
Financial Management	**4.20**	**Fully Compliant**
1. Revenue Collection	4.82	Fully Compliant
2. Purchasing and Disbursement	2.75	Partially Compliant
3. Strategies for Profitability	5.00	Fully Compliant
4. Allotment of abattoir revenue	4.25	Fully Compliant
Operation Management	**2.94**	**Partially Compliant**
1. Managing Quality	3.00	Partially Compliant
2. Process and Capacity Design	2.80	Partially Compliant
3. Location and Layout Strategy	3.62	Mostly Compliant
4. Maintenance and Scheduling	2.34	Hardly Compliant
Grand Mean	**3.39**	**Partially Compliant**

*Legend: 1.00-1.79 not at all compliant (not implemented) 3.40-4.19 mostly compliant (75% implemented); 1.80-2.59 hardly compliant (25% implemented); 4.20-5.00 fully compliant (100% implemented); 2.60-3.39 partially compliant (50% implemented)

Marketing management on the pricing of services has a 5.00 mean value which means full compliance. This service price was based on Section 7, fees in Executive Order 137, R.A. 9296, Chapters 5 and 11, which shows the local ordinance on slaughtering houses where the specific ante-mortem, post-mortem, slaughtering charges and other fees were specified. The abattoir place about marketing has a mean of 3.95 which mostly is compliant with the standards based on PAES 2000:411, Sections 5 and 6. The slaughtering procedure has a mean value of 3.48 showing that most of the procedures comply with Chapter 4 of R.A. 9296 on the scope of meat inspection. The service from weighing of animal for slaughtering to dispatching after the post-mortem examination was followed though there were no stainless containers and sterilizers. It should be noted that FAO [14] emphasized that the slaughtering procedure minimizes the contamination of meat products in competing equipment and this particular slaughterhouse does not have such. Slaughterhouse promotion has a mean of 2.50 which is hardly compliant with Chapter 10 of R.A. 9296 and E.O 137 Section 6 on information campaign and post slaughterhouse control. Customers in this slaughterhouse were limited to registered meat vendors in the city market with no implementation of the “bantay karne” program and another promotional campaign. This shows that meat vendors outside the city market usually do not avail of the city slaughtering service and, hence do not undergo meat inspection. The revenue collection under the financial aspect has a mean value of 4.82 which is in full compliance with fees in Chapter 11 of R.A. 9296 and E.O Section 6.

For operations management, managing quality has a mean value of 3.00 which is partially in compliance with the policy, principles and objectives, standards and guidelines, the role of NMIC, and regulations of LGUs in Sections 2 and 3 of Chapter 3; Section 3 of Chapter 3, Chapter 9; R.A. 9296, and Section 1c of E.O 137. The organization chart, service commitment, and city ordinance of slaughtering contribute to managing the quality of service based on the standards. The process and capacity design has a mean value of 2.80 which partially complies with the standards in Chapter 8, Section 8, Rule 55 of R.A. 9296 and PAES 2000:411, Section 4, Rule 2, and Section 8. The lack of facilities affects the process of delivering services. There is no available sterilization, carcass hanger, stainless containers, or personnel gear for the maintenance officer. Bello et al. [16] revealed that in Nigeria the absence of standard facilities in the slaughtering process results in problems that also prevail in this abattoir. The location and layout at 3.62 mean value show that the slaughterhouse mostly complies with PAES 2000:411, Section 4.2 on “AA” classification of slaughterhouse layout and design and E.O 137, Section 2 on standards. The available lot space is intended for expansion with enough parking spaces.

B. Ligao City

The Ligao City slaughterhouse is the only accredited abattoir under the "AA" classification in Region V, Philippines. Table 2 shows the average mean value of 4.41 which is full compliance with the set standard. Both the financial and operation management is the abattoir's strength at 4.68 full compliance followed by marketing management practices at 4.31 which is also in full compliance with R.A. 9296, E.O 137, and ordinances. Human resource management practices mostly complied with the standards with a mean value of 3.99. The t-test value resulted in 24.36 which is greater than the critical value at 1-tailed implying that there is a significant difference in the mean values of management practices based on the standards.

The human resources hiring and selection procedure is appropriately implemented based on criteria set at 4.32 which is full compliance. The training of personnel has a mean value of 4.17 which mostly complied with the standards in Chapter 3, Section 8 of R.A. 9296 and E.O 137, Section 6 on training information. All butchers were certified by the NMIS. This implies that the slaughtering procedure is done following the guidelines thus preventing the spread of diseases from meat contamination. The abattoir personnel also have suitable equipment, slaughtering machines, complete personnel gear, and available room to answer their personal needs which practices is affirmed by Furhman [9] who explained that training is incredibly valuable with complete facility in slaughterhouse management. Personnel evaluation has a mean of 3.25 which is partially in compliance with the standards. The performance evaluations were done annually by the HR office but the results were not given back to personnel.

The pricing of service under marketing has a mean value of 5.00 which is fully in compliance with the standard due to strict price implementation mandated by E.O 137 under Section 7, R.A. 9296, Chapter 11 for service fees, and Chapter 14 for penalties and city ordinance where ante-mortem, post-mortem, slaughtering fees and other charges were specified. This is similar to the ordinance for the slaughterhouse operation in Talisay City, Cebu. The service procedure has a mean aggregate of 4.75 which is also in full compliance with the scope of slaughtering based on R.A. 9296, Chapter 4. The promotion of slaughtering services has a mean value of 2.50 which partially complies with the information campaign standard. It has been a practice that customers are limited only to registered meat vendors. They have the "bantay karne" program implemented by Ligao city police with the aim of not tolerating 'hot meat' and 'double dead' meat in the distribution market; however, the implementation is not very effective due to the absence of patrol facility and other campaign programs. Costales [12] mentioned that strong market links between the meat industry and its beneficiaries within the economy are necessary by identifying opportunities such as programs and facilities to increase income. These programs may be dependent on security promotion that could establish

consumer awareness of meat service. A patrol facility for this abattoir is needed to improve the implementation of the "bantay karne" program. In terms of the place of distribution for marketing, it is located about 4 kilometers away from the market site area with an aggregate mean value of 5.00, which is in full compliance with the distance from the residential area.

Table 2. Slaughterhouse Management in Ligao City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**3.99**	**Mostly Compliant**
1. Selection and Hiring	4.32	Fully Compliant
2. Training and Workshop Program	4.17	Mostly Compliant
3. Personnel Evaluation	3.25	Partially Compliant
4. Reward System	4.25	Fully Compliant
Marketing Management	**4.31**	**Fully Compliant**
1. Pricing	5.00	Fully Compliant
2. Service Procedure	4.75	Fully Compliant
3. Promotion of Service	2.50	Hardly Compliant
4. Place of Distribution	5.00	Fully Compliant
Financial Management	**4.68**	**Fully Compliant**
1. Revenue Collection	4.75	Fully Compliant
2. Purchasing and Disbursement	4.50	Fully Compliant
3. Strategies for Profitability	5.00	Fully Compliant
4. Allotment of abattoir revenue	4.50	Fully Compliant
Operation Management	**4.68**	**Fully Compliant**
1. Managing Quality	4.25	Fully Compliant
2. Process and Capacity Design	4.75	Fully Compliant
3. Location and Layout Strategy	4.95	Fully Compliant
4. Maintenance and Scheduling	4.77	Fully Compliant
Grand Mean	**4.41**	**Fully Compliant**

In financial management, the revenue collection has a mean value of 4.75 which is in full compliance with the standards. The collection officer remits to the city treasurer and submits records and receipts filed monthly at the city veterinary office under the supervision of the GMP officer. Collection per service is based on approved ordinance. Costales [12] explained that rapidly increasing demand for livestock products particularly due to the increasing population increases revenue in the meat industry. This implies that more livestock products would mean more revenue receipts. The purchasing and disbursement procedure has a mean value of 4.50 which means in full compliance. All requested items and equipment are based on approved annual budget allocation and ordinance for abattoir management as the abattoir head submits the proposed budget for approval and implementation. The newly purchased items are posted on the abattoir bulletin board. This implies that this slaughterhouse tries to adopt a cost-effective procedure based on the local government-mandated procedure. It also shows that transparency and proper recording are practiced as posting information on its bulletin is required. The strategies for profitability fully comply with the standard at a 5.00 weighted mean value. The daily "all in - all out" policy and its operational days of seven days a week are programs that increased the profits of the facility. These activities are monitored by

the local legislators through their accomplishment reports and other internal documents and records. The monitoring and veterinary services to hog, cattle, and other animal raisers in the community are another contributor to the profitability of the slaughterhouse operation in Ligao City.

Operation management has a mean value of 4.25 which shows full compliance with the standards. The implementation of their good manufacturing practices (GMP) manual resulted in full compliance with the standards on the aspects of employee requirements, hygiene, facilities, and sanitation programs. This coincides with Antic et al. [17] who presents practical guidelines for abattoirs to provide safe and quality meat products fit for consumption. The process and capacity design with a mean value of 4.75 fully complies with Section 2 of the Philippine Agriculture Engineering Services 411:2000. The number of required major and auxiliary facilities and equipment are efficiently installed and the slaughtering process of butchers is efficient as confirmed by NMIS on their certification. This is supported by Cruz et al. [18] on the Philippine Agriculture Engineering Standards that presented the guidelines on designs and construction of slaughterhouses for "AA" classification. Also, the location and layout strategy has a mean value of 4.95 in full compliance with PAES 2000:411, Section 4.2, and E.O. 137 under Section 2.

C. Legazpi City

The Legazpi City slaughterhouse has one of the biggest scopes in Region V with 70 total covered barangays. The slaughterhouse was originally "AA" accredited in 1990, but is currently under "A" classification due to the absence of some indicators needed to qualify for the next classification. Table 3 shows the mean values of management practices with an average of 3.13 which shows partial compliance. The t-test resulted in 5.01 is greater than the critical values which means that the indicators have significant differences with the level of compliance. The financial practices are the strength of this slaughterhouse as local ordinances on operation and budget appropriation are in full compliance. This is followed by marketing practices at 3.46 which mostly complied with the standards and operation practices at 2.40.

Table 3. Slaughterhouse Management in Legazpi City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**2.38**	**Hardly Compliant**
1. Selection and Hiring	3.78	Mostly Compliant
2. Training and Workshop Program	1.50	Not at all Compliant
3. Personnel Evaluation	1.00	Not at all Compliant
4. Reward System	3.24	Partially Compliant
Marketing Management	**3.46**	**Mostly Compliant**
1. Pricing	5.00	Fully Compliant
2. Service Procedure	1.75	Not at all Compliant
3. Promotion of Service	3.10	Partially Compliant
4. Place of Distribution	4.00	Mostly Compliant

Financial Management	**4.28**	**Fully Compliant**
1. Revenue Collection	4.15	Mostly Compliant
2. Purchasing and Disbursement	3.00	Partially Compliant
3. Strategies for Profitability	5.00	Fully Compliant
4. Allotment of abattoir revenue	5.00	Fully Compliant
Operation Management	**2.40**	**Hardly Compliant**
1. Managing Quality	2.25	Hardly Compliant
2. Process and Capacity Design	2.10	Hardly Compliant
3. Location and Layout Strategy	3.40	Mostly Compliant
4. Maintenance & Scheduling	1.80	Hardly Compliant
Grand Mean	**3.13**	**Partially Compliant**

Human resource practices at 2.38 are hardly compliant with the set standards on personnel evaluation and training requirements. Table 3 shows specifically that under the human resources management, the selection and hiring procedure has a mean of 3.78 which implies that most of the standards such as licenses for meat handles and inspectors are implemented. This procedure is done by the personnel office of local government for all designated positions in abattoirs. However, in this slaughterhouse, butchers were personally selected, hired and paid by authorized and registered meat vendors by the city. This leads to less cost of operation with less loyalty and commitment to abattoir policies. For training and workshop, the mean value is 1.50 which is not at all in compliance with the standards. Documents revealed no training undertaken by any personnel in abattoir management due to absence of training program in the budget allocation. With regard to personnel evaluation, Grandin [19] stated that in slaughter business, personnel should not be afraid of learning new cutting techniques based on assessment and evaluation. This implies that personnel evaluation identifies areas for improvement and should be considered in the planning phase in order to improve skills of abattoir personnel. The employees reward system is at 3.24 mean value showing partial compliance with the standards. The remunerations were based on the personnel's position as either permanent or casual employees with salary based on appropriated budget. The butcher salary is shouldered by the respective meat dealers who hire them. With regard to compensation, Quinones [20] cited that the LGU is given an authority to exercise its propriety and economic exercise so that sufficient funds sustain the operation of slaughterhouse including the payment of salaries and wages. This implies this slaughterhouse needs to restructure its organization by including butchers in its salary budget appropriation to increase loyalty and commitment in the proper conduct of slaughtering as required by the standards.

In marketing management, the pricing has a mean value of 5.00 which is full compliance. The service charges are strictly based on the approved ordinance for slaughter services guided by E.O 137, Section 6 on fees and charges and by R.A. 9296 under Chapters 5 and 11. With regard to service charges, Franks & Peden [21] pointed out that, the slaughtering services

charge separately per head hog and cattle with ante-mortem and post-mortem fees. This is also true to this abattoir where charges and fees on its services follow specified approved ordinance. For service procedure, it has a mean value of 1.75 which does not comply with ante-mortem and post-mortem procedures. The procedure is affected by the absence of complete functional slaughtering facilities for hog and cattle line due to unfinished construction of new slaughterhouse facility resulting in floor dressing. The absence of functional drainage, lagoons cattle and hog line, inventory room makes butchering hard and less efficient. This shows that the slaughtering procedure requires functional facilities, machines and equipment which should be available in Legazpi slaughterhouse. The promotion of slaughtering service has a mean value of 3.10. This is partially compliant with the standards since the customers were limited to meat vendors in the city market with no "bantay karne" or meat watchers' program and no other promotional campaign. With 70 covered barangays and with condensed population in the barangays in the city area, it is very difficult for the abattoir to serve customers.

For the financial management, the revenue collection has a mean value of 4.15 which mostly complies with the standards on fees, charges and other penalties based on slaughtering ordinance. The purchasing and disbursement of funds has a mean value of 3.00 which is partially compliant with the local abattoir ordinance. All items for purchasing are based on the approved budget. When the budget is already exhausted for the year but there is a need to purchase items needed in the operation, budget realignment is done. This process reflects what Thomas et al. [22] revealed about the procurement process in the Philippines. They explained that slaughterhouse need to identify the appropriateness of current procurement guidelines in curbing corruption and checking the efficiency of collective action in the use of facilities procured. An example of budget realignment in this abattoir is purchase of chlorine. The strategies of profitability and allotment of income have a mean value of 5.00 which is fully compliant with the standards. This slaughterhouse, operating with 'all- in and all-out' policy, operates daily and is being monitored by the city legislative body and mayor through accomplishment reports. The proceeds of revenue are mandatory deposited to the city treasury for maintenance expense and payment of loans incurred due to expansion of the new slaughterhouse building.

Managing quality service under operation management has a mean value of 2.25 which is hardly in compliance with the standards. The slaughterhouse operates under the city veterinary office where its vision, mission and aims are aligned with that of the city. However, these are not posted and the operation does not have slaughtering manual and sanitation guidelines. Ante-mortem and post-mortem inspections are implemented but there are no

functional area, facilities, and equipment. The functional areas, facilities, and machines are not in place in this abattoir thus needs to be made available in the new facility. The process and capacity have a mean value of 2.10 which is hardly in compliance with the standards. There are no facilities for hog and cattle line currently being used in the process resulting to a limit of 80-90 hogs and 15 average cattle slaughtered per day. As Othman [23] pointed out, meat products cannot be promoted without good facilities and infrastructure. This implies that with the opening of new abattoir facility, floor dressing will be eliminated promising better service with quality meat products. Location and layout have a mean value of 3.40 which is mostly in compliance with PAES 2000:411 on layout and design for "AA" classification and E.O. 137, Section 2. The slaughterhouse is well-fenced but has limited parking area and area for expansion. It is distant from residential area but is near Legazpi seashore with about 30 meters distance. This still complies with the distance and sanitation requirement from any river streams or any body of water that can be contaminated.

D. Masbate City

The "AA" classification was awarded to Masbate City slaughterhouse in 1995. This abattoir caters slaughtering services to other towns. The management practices have a mean average of 3.37 which is moderate compliance with the standards. This is followed by financial management at 3.86 whose standards are mostly in compliance with the standards, e.g., local ordinance adherence. Operation management and human resource both have partial compliance with the standards and have mean values of 2.92 and 2.72, respectively. The computed t-value is 5.01 which is greater that the t-critical value, hence there is significant difference on the level of compliance. Table 4 shows the mean value under selection and hiring procedure at 3.90 that is mostly in compliance with the standards. These procedures were supervised by the City Personnel office. The slaughterhouse personnel are classified as permanent and casual employees. In discussing hiring, FAO [14] cited that the factor affecting the Welsh Red Meat slaughtering industry is skilled labour requirement. Aquino and Abeleda [7] also explained that employment selection and hiring guidelines should consider qualification based on job-relatedness through an objective and accountable committee. This implies that selection and hiring should be based on needs and standards and these should be reflected in the implementation. Training program has a mean value of 2.00 showing that practices hardly comply with the requirements under Section 6 of Executive Order 137 for local abattoirs. Only one butcher passed and received the training certificate in NMIS for butchering while the rest of the personnel were in on-the-job training program since there was no training budget appropriated.

In the marketing management, the pricing of services has a mean value of 5.00 which shows full compliance with the mandated standards on their ordinances on fees and charges based

on slaughtering ordinances in Chapter 11 of R.A. 9296 and Executive Order 137 Section 6. This is similar in General Santos where inspection service fees, transport and its handling charges were specified on the ordinance. This implies that revenue, dependent of the prices of services, is limited on the approved budget for collection of slaughtering services as reflected in the abattoir ordinance for operation. The slaughtering service procedure has a mean value of 4.05 which shows that slaughtering procedure was mostly complied based on the scope of ante-mortem and post mortem as guided by R.A. 9296, Chapter 5. The abattoir hog and cattle are in separate holding areas and slaughtering lanes. The abattoir is also equipped with railing to hang all animal carcasses and has delivery meat van to transport the carcass. The service promotion has a mean value of 2.75 which shows partial compliance with information campaign. The clients are only those registered meat stall owners in the city market with no promotional programs and "bantay karne" implementation. They accommodate animals for slaughtering from other towns with the same fees and charges.

For the financial management, the revenue collection has a mean value of 4.60 which is fully in compliant with the ordinances for ante-mortem, post-mortem fees and other slaughtering charges. The revenue was added to the income of the local government under the enterprising activity. This is true in Talisay, Cebu where Magsaysay [24] revealed that the slaughterhouse earned more than 2 million in a month which is double from the earnings from the previous month. This implies that local public enterprises following ordinance and mandated tasks such as E.O. 137 and R.A. 9296 can generate more revenue while providing the basic slaughtering services. For purchasing and disbursement, the mean value is 2.45 which is hardly in compliance with the standard specifically on budget appropriation and allocation. Requisition of items for purchases is very limited and with delayed delivery resulting in poor maintenance which contributes to ineffective waste management due to absence of some cleaning materials. Poor facilities due to lack of implementation on purchasing and disbursement of needed items results in poor service quality which should be an agenda in the planning phase for next year implementation.

Table 4. Slaughterhouse Management in Masbate City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**2.72**	**Partially Compliant**
1. Selection and Hiring	3.90	Mostly Compliant
2. Training and Workshop Program	2.00	Hardly Compliant
3. Personnel Evaluation	1.00	Not at all Compliant
4. Reward Program	4.00	Mostly Compliant
Marketing Management	**4.00**	**Mostly Compliant**
1. Pricing	5.00	Fully Compliant
2. Service Procedure	4.05	Mostly Compliant
3. Promotion of Service	2.75	Partially Compliant
4. Place of Distribution	4.20	Fully Compliant

Financial Management	**3.86**	**Mostly Compliant**
1. Revenue Collection	4.60	Fully Compliant
2. Purchasing and Disbursement	2.45	Hardly Compliant
3. Strategies for Profitability	4.60	Fully Compliant
4. Allotment of abattoir revenue	3.78	Mostly Compliant
Operation Management	**2.92**	**Partially Compliant**
1. Managing Quality	3.15	Partially Compliant
2. Process and Capacity Design	3.00	Partially Compliant
3. Location and Layout Strategy	3.40	Mostly Compliant
4. Maintenance and Scheduling	2.15	Hardly Compliant
Grand Mean	**3.37**	**Partially Compliant**

For the operations, managing quality has a mean value of 3.15 which is partially in compliance with its vision reflected on the accomplishment report as per standards on the declaration of policy on meat inspection code in R.A. 9296. The organization chart, together with other announcements such as suspension of employees due to absences, newly purchased items, and miscellaneous expenses for the current month is posted. Slaughtering process and capacity design with mean value of 3.00 is partially compliant with PAES 2000:411 and R.A. 9296 on process and capacity of required facilities. Both animals are submitted to the 'all-in and all-out' policy with separate holding pens for condemned hog and cattle. It should be noted though that this abattoir has an old building and equipment for hog and cattle line. In terms of location and layout strategy, the mean value is 3.40 which mostly comply with the Philippine Agriculture Engineering Standard. The building appears to be dilapidated, unpainted, and dirty and has no complete fence.

E. Naga City

The City of Naga slaughterhouse facility is under the "AA" classification but the certification expired in 2016; however, there was a plan of re-accreditation in the last quarter of 2017 after the complete renovation and installation of new equipment. Table 5 shows the mean value of 4.25 for management practices which is in full compliance with the government standards. Financial management practices are the strength of this slaughterhouse for there is strict implementation of abattoir ordinance on revenue collection based on the set fees with 4.97 mean value that is fully in compliance with the standards. Marketing management follows with a mean value of 4.13 where standards mostly complied with proper slaughtering procedures and promotion programs. The operations management has a mean value of 3.95 where standards mostly comply with the standards based on the sanitation requirement of R.A. 9296 in Chapter 8 and E.O. Section 1. Human resources with a mean of 3.98 mostly comply with the standards for personnel management. The t-test with a .05 margin of error at one-tailed is 3.08 which is greater than the t-critical value which implies that the management aggregate values used have significant differences with the level of management practices.

For the human resource management, the selection and hiring procedure mean with complete training of personnel, properly installed facilities are of prime importance. The personnel evaluation of 34 employees has a mean value of 3.35. The personnel office conducts the yearly personnel performance and the result is endorsed to the director of slaughterhouse operation head for records and references. In relation to personnel evaluation, Donham [25] revealed that evaluation showed that half of the workers wore personal protective clothing, rubber shoes and coat to avoid the zoonotic disease. Personnel evaluation should therefore not only include assessment of personnel training but also use of proper protective gear and equipment as well. Personnel evaluation should be regularly conducted to identify the practices that the personnel need to improve. The employee rewards system has a mean value of 4.30 which is fully compliant with the standards set for budget allocation on salaries, wages and incentives under R.A. 9296.

Table 5. Slaughterhouse Management in Naga City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**3.98**	**Mostly Compliant**
1. Selection and Hiring	4.70	Fully Compliant
2. Training and Workshop Program	3.60	Mostly Compliant
3. Personnel Evaluation	3.35	Partially Compliant
4. Reward Sytem	4.30	Fully Compliant
Marketing Management	**4.13**	**Mostly Compliant**
1. Pricing	4.00	Mostly Compliant
2. Service Procedure	4.35	Fully Compliant
3. Promotion of Service	4.20	Fully Compliant
4. Place of Distribution	4.00	Mostly Compliant
Financial Management	**4.97**	**Fully Compliant**
1. Revenue Collection	4.90	Fully Complaint
2. Purchasing and Disbursement	5.00	Fully Compliant
3. Strategies for Profitability	5.00	Fully Compliant
4. Allotment of abattoir revenue	5.00	Fully Compliant
Operation Management	**3.95**	**Mostly Compliant**
1. Managing Quality	4.10	Mostly Compliant
2. Process and Capacity Design	3.90	Mostly Compliant
3. Location and Layout Strategy	3.60	Mostly Compliant
4. Maintenance and Scheduling	4.21	Fully Compliant
Grand Mean	**4.25**	**Fully Compliant**

Pricing of slaughtering service under marketing has a mean value of 4.00, implying that the standards on service charges, fees, and penalties in Naga slaughterhouse were mostly complied with. The 2012 slaughterhouse ordinance is being amended to adjust fees, charges for payment of new facilities, and cost of operation. The NMIS [4] elaborated that DA through NMIS should set appropriate prices in the amended ordinance in the coming re-accreditation. This implies that amendment of the new ordinance is permissible as legislators approve it for implementation. The slaughtering service, from its recording and weighing to dispatching of

animal carcass procedures, has a mean value of 4.35 which fully complies with the standards. The 'all-in and all-out' policy and separation of complete mechanized facilities for hog and cattle are also observed. About these facilities, the Food and Agriculture Organization [14] states that the slaughtering process of scalding, skinning, removal of animal hair, or plucking varies according to the type of animal and is carried out in a separate area in the abattoir. The quality meat from hogs and cattle is attained with proper slaughtering procedure in this abattoir. Promotion of service has a mean value of 4.20 which is also fully compliant with the information campaign, its transportation, and post-abattoir control as clients were not limited to registered meat vendors from the city market but included all mini-markets from 27 barangays of Naga City who also avails the animal slaughtering services. The "bantay karne" program is also effective in preventing hot meat and doubles dead meat products from being distributed and sold in the market sites. Also, the programs, such as seminar orientation to senior citizens, sponsorship, regional television news exposure and advertisement, and participation in barangay assemblies promote consumer awareness of quality slaughtered meat from abattoirs.

The revenue collection under financial practices has a mean value of 4.90 which is fully compliant based on the 2012 ordinance on slaughterhouse operation. Fees per animal were based on the ante-mortem, post-mortem, and slaughtering service which were the amount collected for remittances to the city treasurer as revenue from local public enterprise slaughterhouse. On purchasing and disbursement, the mean value is 5.00 which is also in full compliance with the budget ordinance. The current purchases and installation of all auxiliary and major equipment in the hog and cattle line showed the proper allocation, purchasing, and disbursement of funds. This agrees with financial reports in Vermont, Canada which showed that equipment for facilitator and packaging commands premium prices to top-quality cuts which implies that appropriate funding for facilities results in better slaughtering service and more potential income in this abattoir. The strategy on profitability has a mean value of 5.00 which is in full compliance with the standards. The daily slaughtering operations follow the 4:00 pm to 9:00 am schedule. This implies that monitoring of programs by legislators in this abattoir and standardized conduct of activities contributes to managerial cost-efficiency leading to profitability; hence, these activities such as the 'all-in and all-out' policy should be continuously implemented.

The managing quality under operations management has a mean value of 4.10 which is mostly compliant with the standards on R.A. 9296 on policy, objectives, and standard guidelines on abattoir. This is supported by the service vision and mission which were patterned on the city quality service policy and city charter. The emphasis of the policy is to deliver effective and efficient service as stated in the City Charter. The slaughterhouse

performance is seen in the filed accomplishment reports showing an increase in revenues in the office of the slaughterhouse director. The report includes the consistent practices on ante-mortem and post-mortem examination and inspection, the inventory, and status of all facilities and equipment. Pangga [26] stated that quality assurance provides a range of benefits to meat processors such as customer focus, flexibility- 'the do it right in businesses, and superior quality. The slaughterhouse is about 3.5 hectares with a layout that has been approved by the Philippine Agriculture Engineering Standard based on the 411:2000 version specifically on section 4 for "AA" layout and designs. Improving the system in production and service can be achieved through location and layout support in production flow.

F. Sorsogon City

The slaughterhouse management in Sorsogon is under the "AA" classification with a certificate of NMIS that expired last March 2017. The Sorsogon abattoir was established in 2011 under the supervision of the office of the veterinary office with 27 personnel for its operation. Table 6 shows the Sorsogon management practices mean average of 4.30 which is in full compliance with the government standards. The mean value in Table 6 with a t-value of 3.62 is greater than the t-critical value at one-tailed with a .05 margin of error. This implies that the aggregate means have significant differences to the level of compliance. The operation and marketing management are at full compliance at 4.73 and 4.50 respectively. This implementation of the GMP and sanitation program resulted from complete functional facilities and trained personnel in abattoir operations. Marketing programs such as the implementation of the "bantay karne" program information campaign include speakership, participation in barangay assemblies, and school seminars. These programs assisted in the full compliance of this abattoir to the standards, thus these programs need to be sustained.

Specifically, under human resource management, the selection and hiring has a mean value of 4.40 which is in full compliance with the qualification for meat handlers and inspectors on R.A. 9296, Chapter 3, Section 8. This procedure is facilitated also by the local government personnel office, where the final appointment is done by the city mayor. NMIS (2014) explained that the qualifications of a meat inspector include being a graduate of veterinary medicine and having a license. Some of the qualification sets are present in this slaughterhouse. This shows that qualified personnel were employed and performed by standards. The training and workshops have a mean value of 4.24 which fully complies with the standards for undertaking training and training information. The veterinary office gives an annual re-training program for butchers and new employees with job order classification in coordination with the NMIS Regional office and city personnel office. Other related trainings are also given to abattoir operators such as those on health and sanitation, customer relations, and disaster management.

This shows that training and re-training programs are effective in the conduct of slaughtering services. Having correct people with correct skills improved through training and monitoring programs.

Table 6. Slaughterhouse Management in Sorsogon City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**3.97**	**Mostly Compliant**
1. Selection and Hiring	4.40	Fully Compliant
2. Training and Workshop Program	4.24	Fully Compliant
3. Personnel Evaluation	3.02	Partially Compliant
4. Reward Program	3.85	Mostly Compliant
Marketing Management	**4.50**	**Fully Compliant**
1. Pricing	5.00	Fully Compliant
2. Service Procedure	4.80	Fully Compliant
3. Promotion of Service	3.21	Partially Compliant
4. Place of Distribution	5.00	Fully Compliant
Financial Management	**4.10**	**Mostly Compliant**
1. Revenue Collection	3.15	Partially Compliant
2. Purchasing & Disbursement	4.10	Mostly Compliant
3. Strategies for Profit	4.95	Fully Compliant
4. Allotment of abattoir revenue	4.20	Fully Compliant
Operation Management	**4.73**	**Fully Compliant**
1. Managing Quality	4.28	Fully Compliant
2. Process and Capacity Design	4.80	Fully Compliant
3. Location and Layout Strategy	5.00	Fully Compliant
4. Maintenance and Scheduling	4.85	Fully Compliant
Grand Mean	**4.30**	**Fully Compliant**

For marketing management, the pricing of services has a mean value of 5.00 which means full compliance with the standard on fees based on R.A. 9296, E.O 137, and the ordinance on slaughtering. This implies that service charges are strictly adhered to what is on the approved ordinance supported by R.A. 9296 and E.O 137. On procedure for slaughtering, the mean value is 4.80 which fully complies with the daily operations from 3:00 pm to 7:00 pm. For registration of animals and slaughtering, the time is from 12:00 midnight to 6:00 in the morning. There are separate facilities for hogs and cattle with sufficient hot and cold water supplies for slaughtering needs. Stamping of inspected hogs and cattle is also practiced. Like other city slaughterhouses, customers are limited to registered meat vendors. Speakership invitation is accepted but it only happens occasionally. The "bantay karne" program is also functioning but at a limited capacity. This implies that this abattoir follows the standards for promoting meat products and corresponding services. However, there is still a need to identify areas for improvement in the "bantay karne" program and other promotional campaign programs. The abattoir's place of distribution has a mean value of 5.00 which fully complies with the six-kilometer distance requirement away from the city proper. It is also accessible by tricycle. The meat vendors used private vehicles to bring their animals to the facility while for delivery, the city abattoir meat van is used as a service vehicle.

The financial management on revenue collection has a mean value of 3.15 which shows partial compliance with standards. The 2011 ordinance on slaughtering operations is being amended to increase the fees for slaughtering services. The Sorsogon abattoir follows these set guidelines which need to be continuously practiced. Strategies for profitability with a mean value of 4.95 fully comply with the policy guidelines on the development of livestock to promote the health of animals. Their programs include daily opening with monitoring and animal services of veterinary office such as distribution of vitamins, injection, and all-in and all-out policy. Bureau of Animal Industry [10] emphasizes the policy mandate of the veterinary office to assure the health of animals for slaughtering through its different programs such as the distribution of animal vitamins. This is implemented fully in this slaughterhouse for the supply of animals was inspected and clearance for safe consumption was issued, thus this practice needs to continue.

For the operations management under managing quality, the mean value is 4.28 which is in full compliance with the standards in R.A. 9296, Chapter 2 on declaration of policy, objectives, and standard guidelines on meat inspection code. The posted vision, mission, and quality objectives in the veterinary office, waiting area, and personnel office are aligned with the standards. The bulletin board contains the schedules of personnel on duty and several slaughtered animals, both hog and cattle, including antemortem and post-mortem results posted every month. About the slaughtering process, the mean value is 4.80 which fully complies with the standard with about an average of 200 hogs and 30 cattle slaughtered daily following the standardized slaughtering procedure. This procedure is followed in the Sorsogon abattoir and thus needs to be monitored for continuous implementation. The abattoir location and layout with a mean value of 5.00 fully complies with the PAES 2000:411 version on layout and designs. The slaughterhouse is about six kilometers away from the market. The area has adequate parking space and has five lagoons at the back of the slaughterhouse building. The fifth lagoon is a mini fish pond where water waste from butchering flows into it.

G. Tabaco City

The Tabaco City slaughterhouse is under the "AA" classification with an expired certification from NMIS since 2009. Table 8 shows its management practices where the average mean of 3.20 partially complies with the government standards. The strength of this slaughterhouse is in financial and marketing practices with mean values of 3.72 and 3.67, respectively. The practices mostly complied with the standards of local ordinances on budget appropriation. The operation management at 2.76 and human resource management at 2.65 are both partially compliant with sanitation requirements as maintenance does not practice

the 'all-in and all-out' policy. The cleaning policy is only after slaughtering. There is also clogged drainage and no sterilizers and hangers are resulting in floor dressing.

For the 19 human resource personnel, the mean value on selection and hiring is 4.00 which is mostly in compliance with the standards. Casual and contractual employees in the government cannot be considered regular employees unless they have civil service eligibility and licensing requirements. They are also not entitled to the benefits and privileges accorded to regular employees even when they have been serving the government for several years. Training and workshops have a mean value of 1.50 which is not at all in compliance with the standards specifically in Section 6 of Executive Order 137 on undertaking training.

Currently, the butchers are not all certified by NMIS. They are only trained by their meat inspector for the slaughtering procedure. There are no training programs proposed in the activities, hence there is no budget allocation. Also, the Bureau of Animal Industry [10] mentioned that training leads to improved procedures for meat handling, processing, and utilization of animal products. This implies that this abattoir management needs improvement in training to increase their slaughtering skills. On personnel evaluation, the mean value of 1.00 is also not at all compliant with the standards on measures for evaluation in R.A. 9296. The HR office does not conduct personnel performance evaluations in Tabaco due to the absence of its form and its procedure.

For the marketing program, the pricing of the slaughtering service has a mean value of 4.90 which fully complies with the standards. This is based on the approved ordinance for abattoir operation since 2010. The service procedure has a mean value of 3.35 which is partially in compliance with the standards on the scope of slaughtering inspection in R.A. 9296. The facility has separate equipment for hog and cattle; however, there is no railing where the carcass could be hung during slaughtering resulting in floor dressing. This implies that a complete facility is required for proper slaughtering which needs to be addressed by Tabaco slaughterhouse operators. On the promotion of abattoir service, the mean value is 2.44 which is hardly in compliance with the information campaign standards. The abattoir operator concentrates services on registered meat sellers in the city market with no implementation of the "bantay karne" program and another promotional campaign program. This implies that the current marketing promotion in Tabaco with 47 barangays has more room for improvement to increase the number of animals being slaughtered and to avoid backyard slaughtering. The place about marketing has a mean value of 3.98 which mostly complies with PAES standards. The place of distribution is about two kilometers away from the city market and is accessible with a four-wheeled car. Meat vendors have respective mini-tricycles to transport their hogs and cattle for slaughtering. These findings confirm what the Food and Agriculture Organization

[14] explained regarding the advantage of an accessible slaughterhouse facility through good roads and delivery vans which needs to be improved in Tabaco abattoir.

Table 7. Slaughterhouse Management in Tabaco City

Management Practices Indicators	Mean	Interpretation *
Human Resource Management	**2.65**	**Partially Compliant**
1. Selection and Hiring	4.00	Mostly Compliant
2. Training and Workshop Program	1.50	Not at all Compliant
3. Personnel Evaluation	1.00	Not at all Compliant
4. Reward Program	4.10	Mostly Compliant
Marketing Management	**3.67**	**Mostly Compliant**
1. Pricing	4.90	Fully Compliant
2. Service Procedure	3.35	Partially Complaint
3. Promotion of Service	2.44	Hardly Compliant
4. Place of Distribution	3.98	Mostly Compliant
Financial Management	**3.72**	**Mostly Compliant**
1. Revenue Collection	4.78	Fully Compliant
2. Purchasing and Disbursement	1.80	Hardly Compliant
3. Strategies for Profitability	5.00	Fully Compliant
4. Allotment of abattoir revenue	3.30	Partially Compliant
Operation Management	**2.76**	**Partially Compliant**
1. Managing Quality	2.87	Partially Compliant
2. Process and Capacity Design	2.70	Partially Compliant
3. Location and Layout Strategy	3.05	Partially Compliant
4. Maintenance and Scheduling	2.40	Hardly Compliant
Grand Mean	**3.20**	**Partially Compliant**

For financial management revenue, the mean value is 4.78 which is in full compliance with the standards of Tabaco ordinance for slaughterhouse operation. The collection per carcass is also based on the fee specified in the local ordinance and remitted daily in the city treasurer's office with receipts showing increasing figures. There were purchase requisitions not granted due to a lack of budget appropriation or non-reflection in the budget ordinance. This implies that purchase and disbursement procedures need to be reviewed and monitored for items to be available in the abattoir for use. The indicators under strategies for profitability have a mean value of 5.00 which fully complies with the improvement of livestock and animal health. The veterinary office, through its mandate, monitors animals raised in the community which adds to an increase in its profitability with reports submitted to legislators and committees on the agriculture office for monitoring. For the proceeds of abattoir revenue, the mean value is 3.30 which is partially compliant with the standards. The collection officer remits the total collection every day at the city treasurer's office. The results imply that this slaughterhouse collection is good as it has raised revenues consistently through its years of operation. However, there is a need to improve and plan the disbursement and purchases of needed items for maintenance.

In operation management, managing quality has a mean value of 2.87 which partially complies with the R.A. 9296 standards on policy and guidelines of the meat inspection code of the Philippines. There are no posted quality policies, vision, and mission. There are also no information bulletin as well as inspection records that could update the personnel and relay the current status of the facility. The building and the holding pen are only temporarily roofed with "*mantaluna*" which affects their capacity to deliver slaughtering service. As Obokoh & Goldman [27] explained, inadequate facilities and poor infrastructure result from a lack of investment in the industry. With the increasing demand for meat in the city market of Tabaco, the slaughterhouse could add railing and rollers preventing floor dressing and meat contamination. The location and layout strategy has a mean value of 3.05 which partially complies with the standards on PAES 2000:411, Section 4.2 on "AA" classification layout. The place has two lagoons at the back of the slaughterhouse building that is clogged. The dilapidated building has holding pens for hogs and cattle but the facilities need re-identification of labels. This calls for renovation through the appropriation of funds for the next fiscal year of operation. The maintenance and schedule have a mean value of 2.40 which somewhat complies with the sanitation and waste standards. There are no GMP and sanitation manuals in the Tabaco slaughterhouse.

Discussion

The priority areas are those management practices that do not fully comply with the set standards on local budget ordinances, abattoir ordinance on operation, E.O. 137, R.A. 9296, and PAES 2000:411 version. These priority areas under the management areas need to be studied during the planning phase of the abattoir operations to identify procedures, programs, policies, and activities for implementation in the next cycle.

A. Human Resource Management

Table 8 shows the priority areas of management in Bicol LGU under human resource management where all t-values are greater than the t-critical values of 1.943 at one-tail with a .05 margin of error implying that all management practices under human resources have significant differences with the level of compliance on standards set. With its p-value and mean differences, the personnel evaluation was highly significantly lower than the standard with (p-value = 0.09; MD = 3.05). It has the highest mean difference from the standard at the nearest level of significance at .01 which implies that among human resource management, personnel evaluation has the highest priority area needing intervention since practices are non-compliant with the standards. This is due to the absence of evaluation forms and lack of enforcement from personnel officers to conduct annual personnel performance evaluations of abattoir operators as it is not reflected in the annual activity plan.

Table 8. Human resource management priority area

Management practices Indicators	Mean	Mean Difference	T-value	P-value
1. Selection and Hiring	4.17	.83	6.85	0.001***
2. Training & Workshop	2.68	2.32	4.85	0.002**
3. Personnel Evaluation	1.95	3.05	6.83	0.009**
4. Reward System	3.97	1.03	7.66	0.001***

Legend: * - significant at .05; **- highly significant at .01; *** - strongly high significant at .001

Training and workshops with (p-value = 0.002; MD = 2.32) are significantly lower than the standard requirement and with the mean difference hence having an identified gap from the set standard, there is a need to improve its undertakings on training and its information. This becomes a priority area for slaughterhouse operators and the NMIS training officer should reach more LGU's abattoirs in the conduct of skills and training programs especially for butchers and maintenance officers. These activities need to be incorporated into the training budget for the next budget appropriation. There is also the need to establish effective communication in all LGU-operated slaughterhouses on the procedure of availing training and its information. As emphasized by NMIS [14], personnel in slaughterhouses should be educated and trained, especially in the conduct of slaughtering and cleaning.

The rewards system at (p-value = 0.001; MD = 1.03) is strongly high significantly lower than the standards but has the least gap with its mean difference 0f 1.03 from the standard. This implies that the rewards system can be improved and addressed through identifying areas for incentive programs for personnel who have exemplary work performance. Local ordinances can be amended to adjust fees for slaughtering to increase LGU's slaughterhouse revenue which can be utilized for operation expenses based on R.A. 9296, Chapter 3, Section 11 on the responsibilities of LGUs. Hiring and selection with (p-value = 0.001; MD = .83) have the least gap from the standards where personnel officers can be studied. This could include identifying further his/her qualifications, criteria, and procedure for improvement as an appointment for this position is not based on qualification but on the mayor's appointment.

B. Marketing Management

The marketing practices with t-test values greater than the t-critical value of 1.943 imply that all practices, except for the pricing of slaughterhouse services, have a significant difference in the level of compliance with abattoir management. The promotion of slaughtering service with its (p-value = 0.000; MD = 2.24) is strongly high and significantly lower than the standard. This has the highest gap of the mean difference from the standard under marketing management and is a priority area for intervention. This moderate gap shows that not all LGU abattoirs have a strict implementation of the "bantay karne" or meat watchers' program. Some

also do not have promotional campaigns. Abattoir operators need to study the effectiveness of the "bantay karne" program in all LGUs, mandatory information campaigns through participation in assemblies, school campaign, local radio campaign, and others. All promotional campaigns must be reflected in the yearly activities and must be funded as reflected on the budget for slaughterhouse operations. The slaughtering service procedure has its (p-value = 0.015; MD = 1.21) which is significantly lower than the standard and has the least gap and mean difference of 1.21 from the standard.

Table 9. Marketing management priority area

Management Practices Indicators	Mean	Mean Difference	T-values	P-value
1. Pricing	4.84	.16	1.11	0.159
2. Service Procedure	3.79	1.21	3.01	0.015*
3. Promotion of Service	2.76	2.24	8.62	0.000***
4. Place of Distribution	4.30	0.7	3.82	0.006**

Legend: * - significant at .05; **- highly significant at .01; *** - strongly high significant at .001

For continuous improvement, slaughterhouse operators need to prioritize monitoring programs with action plans. This includes maintaining inventory for all machines, equipment, and functional facilities. The place of distribution at (p-value = 0.006; MD = 0.7) is significantly lower than the standard, which is almost in full compliance. However, its management practices need to be monitored to identify areas for improvement. Pricing of slaughtering services at p-value =.159 (MD =.16) is not significant at .05 as its mean difference is almost within the standard which implies that pricing is in full compliance as ordinances are implemented by all slaughterhouses in the region.

C. Financial Management

For financial practices, all indicators have t-values greater than the t-critical values of 1.943 which implies the mean values have significant differences with the level of compliance on abattoir management except for strategies for profitability with a t-value of 1.14 which is less than the t-critical value.

Table 10. Financial management priority area

Management Practices Indicators	Mean	Mean Difference	T-values	P-value
1. Revenue Collection	4.45	.55	2.33	0.034*
2. Purchasing and Disbursement	3.37	1.63	3.66	0.007**
3. Strategies for Profitability	4.94	0.06	1.14	0.153
4. Allotment of abattoir revenue	4.29	0.71	3.03	0.015*

Legend: * - significant at .05; **- highly significant at .01; *** - strongly high significant at .001

Table 10 shows that purchasing and disbursement have (p-value = 0.007; MD = 1.63) which is significantly lower than the standard and has the highest mean difference identified, thus showing a moderate gap and need for intervention. This is due to the absence of a requisition

form and an ineffective requisition procedure. The requisition procedure needs to be studied and reviewed to identify effective requisition processes and review the quantity of purchases. The allotment of income and revenue collection has a (p-value = 0.015; MD = 0.71) and p-value = 0.034 (MD = .55), respectively. This is significantly lower than the standard showing almost full compliance at the mean difference of .71 from the standard. However, the slaughterhouse needs to continue its records with the receipts and transparency of collected revenue, payments, and remittances. Revenue has a significantly lower p-value and is almost in full compliance with the standard as the revenue procedure where strictly implemented. The strategies for profitability with (p=value = 0.153; MD = .006) are insignificant as it is within the standard; hence, no gap implies full compliance.

D. Operation Management

All t-values under the operation management practices have greater values than the t-critical value which implies that all operational practices have significant differences with management practices in LGU-operated slaughterhouses.

Table 11. Operation management priority area

Management Practices Indicators	Mean	Mean Difference	T-values	P-value
1. Managing Quality	3.41	1.59	5.26	0.002**
2. Process and Capacity Design	3.44	1.56	3.91	0.006**
3. Location and Layout Strategy	3.86	1.14	3.84	0.006**
4. Maintenance and Scheduling	3.22	1.78	3.54	0.008**

Legend: * - significant at .05; **- highly significant at .01; *** - strongly high significant at .001

Table 11 shows that maintenance and scheduling on cleaning the slaughterhouse facility have the highest mean difference from the standard with (p-value = 0.008; MD = 1.780) showing a moderate gap as its values are highly significantly lower than the standard; hence, intervention is needed. Some only adopt the 'after slaughtering cleaning policy' while some do not implement good manufacturing practices about sanitation programs.

Hence, maintenance is a priority area for intervention. There should be functional facilities included in the planning at the end of the year and this should be included in the budget allocation. Slaughterhouse operators need to monitor all programs identified in their monthly accomplishment reports to improve the gap in managing quality with (p-value = 0.002; MD = 1.59) which is also high significantly and the mean difference moderately lower than the standards. Process and capacity design has a (p-value = 0.006; MD= 1.56) at both highly significant at .01 while location and layout strategy have (p-value = 0.006; MD = 1.14) showing the least gap with PAES 2000:411 standards. These need to be maintained by monitoring functional facilities and usable and non-usable items.

Conclusion and Recommendation

The strength of Ligao, Naga, and Sorsogon City slaughterhouse management includes having certified butchers from NMIS and having their personnel attend training and workshops. There are implementations of GMP and sanitation programs with designated GMP officers. There is also the presence of auxiliary and functional facilities from holding pens to dispatching and delivery. The slaughterhouse ordinance on the operation and budget ordinance guides respective cities on the pricing of service, revenue, allotment of income, purchases, and disbursement procedure. These city slaughterhouses have marketing practices that include a "bantay karne" program, speakership on consumer awareness of safe meat products, participation in barangay assemblies, and TV and radio exposure. There are also veterinary programs such as the distribution of vitamins and required annual vaccines to produce healthy animals for slaughtering and economic purposes. All these practices improve the revenues. Naga City slaughterhouse's new mechanized slaughtering resulted in easier, faster, and more convenient slaughtering procedures. Sorsogon City Abattoir also has meat inspectors, a director's office, a meeting area, butchers' quarters, an adequate parking area, and a waiting area with a canteen. Hence, these abattoirs are in full compliance with the set standards.

In the city slaughterhouses of Iriga, Legazpi, Masbate, and Tabaco, management practices have a lack of skilled butchers with no training and personnel evaluation given to slaughterhouse operators. The lack of functional facilities, such as clogged drainage and the absence of lagoons cause the presence of flies and foul odor. The absence of sterilizers and stainless containers also exposes meat products to contamination. Abattoir customers are limited to registered meat vendors in the city market with no promotional programs for consumer awareness. Other meat products in mini-markets in respective barangays are considered as hot meat with no ante-mortem and post-mortem examination and inspection. There is no implementation of good manufacturing practices and sanitation programs. Specifically, Legazpi City slaughterhouse management has unfinished construction of a new mechanized slaughtering facility resulting in backyard slaughtering. There are also no railings and meat hangers in Tabaco resulting in floor dressing. Also, butchers are hired by the meat vendors and not by the abattoir operators. These cities partially comply with the set government standards.

The priority areas include personnel evaluation and training programs. The absence of personnel evaluation procedures and training programs resulted in partial compliance with set standards. The promotional services of the "bantay karne" program have been ineffective in Iriga, Legazpi, Tabaco, and Masbate abattoirs. There are no other promotional programs, thus these abattoirs are in partial compliance and need further intervention. The delayed

unavailability of items, equipment, and machines in the slaughterhouse is caused by the ineffective requisition procedure and unavailability of funds as per the approved ordinance. Hence, the flow of transactions under the requisition procedure must be studied and reviewed as priority areas. Priority should also be given to the implementation of GMP and sanitation programs in all LGU slaughterhouses to address the need to improve waste disposal.

Intervention for priority areas includes the implementation of personnel evaluation with newly approved forms together with an annual training program for human resources. There should be strict implementation of "bantay karne" together with other promotional campaigns on consumer awareness. Adoption of requisition procedure and required implementation of GMP with sanitation program in LGU-operated abattoirs must also be accomplished.

Conflict of Interest

The authors declare that there is no conflict of interest.

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