Journal of Business and Management Studies (JBMS)
ISSN: 2709-0876
Journal Homepage: www.al-kindipublisher.com/index.php/jbms

Analysis of Inventory Management Systems of Selected Small-Sized Restaurants in Quezon Province: Basis for an Inventory System Manual

Lea Nerdelita L. Baylen
STI COLLEGE – Lucena City, Quezon, Philippines
Corresponding Author: Lea Nerdelita L. Baylen, E-mail: lea.baylen@gmail.com

ARTICLE INFORMATION

Received: October 15, 2020
Accepted: November 22, 2020
Volume: 2
Issue: 3

KEYWORDS

Inventory Management System of Small Sized Restaurant in Quezon Province

ABSTRACT

The study aimed to determine the effectiveness of the inventory management system which caused the decrease in profit of the randomly selected small sized restaurants in the four districts of Quezon province, to provide suggestions and solutions to the problems that they encounter in their day-to-day operations. This descriptive research used quantitative and qualitative approaches in gathering data. A survey was conducted among restaurant employees while an interview was done among restaurant owners. Weighted mean, frequency and percentage were utilized in the analysis and interpretation of gathered data.

1. Introduction

Management is the organization and coordination of the activities of a business in order to achieve defined objectives. It is often included as a factor of production along with machines and materials. The basic task of management includes both marketing and innovation. It consists of the interlocking of functions of creating corporate policy and organizing, planning, controlling, and directing an organization's resources in order to achieve the objectives of that policy (WebFinance Inc., 2017).

Restaurant management involves different aspects. It includes public relations, inventory, dealing with staff, customer service, and many more. Sometimes, a restaurant owner acts as the restaurant manager also. A manager with a strong character is also essential for a successful restaurant. The manager is usually the person handling both employees and customer issues.

Restaurant business belonged to the category of micro, small, and medium enterprise or MSME. MSME is any business activity or enterprise engaged in industry, agribusiness and/or services, whether single proprietorship, cooperative, partnership or corporation whose total assets, inclusive of those arising from loans but exclusive of the land on which the particular business entity's office, plant and equipment are situated, must have value falling under the following categories: Micro, less than three million pesos, Small, more than three million pesos but not more than fifteen million pesos, Medium, more than fifteen million pesos but not more than one hundred million pesos (Department of Trade and Industry, 2008).

The technology which deals with services being offered to either an individual or group of individuals whether public or private institution concerned in the delivery of food or services is called "food service". It was later on renamed to cafeteria restaurant and management service in order to embrace a wider scope of knowledge (Villanueva, 2010). Hence, it is not always easy starting a restaurant business. There are a lot of things to consider, like the location, processes used in running the business, the place of business and how these affect the operation of the restaurant (Guasch, De Gracia, and Esgra, 2008).

In reality, inventory management is not fascinating but it can define success from failure. It is said that the bigger the inventory, the more that management inventory is vital. Inventory management and purchasing have the same objective: to have the right goods at the right time at the right quantity. The goal of proper inventory management and control is to ensure continuous operations which is important because delays due to lack of materials is costly. Furthermore, sales can be maximized by stocking appropriate inventories in retail and wholesale establishments. Protecting inventories which is part of the assets of the company from theft or shrinkage contribute to operational efficiency. If inventories are maintained at an optimum level, meaning, the point at which inventory stockouts are at the minimum level and do away with excess inventory, money can be saved and profit can be maximized (Moore, Petty, Palich, and Longenecker, 2008).

Weedmark (2017) cited several theories of inventory systems that are common among small businesses. While large corporations have inventory requirements that can be determined using complex algorithms and computer programs, most inventory models for small businesses can fit within three theories. These are just-in-time inventory, Heijunka, and deterministic continuous review. Each theory is designed to ensure needed items are in stock for customers when needed without wasting supplies or spending a fortune on excess stock.

With a just-in-time inventory system, Kokemuller (2017) stated that items are not produced until they are needed by customers. The benefits include reduced overhead and minimum storage requirements. There is also less waste when perishable items are involved just like in the case of small sized restaurants. Other businesses that use this system include manufacturers of extremely expensive products such as airplanes or the other end like flower shops, bakeries, and on-demand publishing houses.

According to Friddle (2017), Heijunka is used in leveled inventory and production, which is a theory put into practice by Toyota. Its aim is to maintain level production cycles, meaning overtime and idle production time are kept to a minimum. For instance, Toyota adjusts its production of different vehicle models and parts on a weekly and daily basis based on precise calculations of customer demands. Thus, small businesses with seasonal sales cycles can benefit from Heijunka, which means producing a consistent number of products each week of the year instead of rushing to fill orders during the busy season.

A third inventory theory is the deterministic continuous review which according to Wensing (2011) is put into practice by most retailers. It essentially means keeping items in stock and ordering more when levels begin to drop. This model works best when one can predict customer orders and shipping times. Hence, if it takes a week for items to ship to a store, there is a need to have enough inventory to last a week as customers can turn away when the item is out of stock.
These theories could help in analyzing the inventory management system in place or is being practiced by most small sized restaurant.

Inventory management is similar to purchasing because the quality of finished products depends on the raw materials used. At this point, it is very important to know the suppliers of the inventories. A good supplier will never let the business down. There are a number of factors to be considered in order to maintain a good relationship with the suppliers. This could be done by promptly paying the bills and by giving the sales representatives courteous hearing. Orders should not also be cancelled to avail discounts. Suggestions to suppliers for product improvement should also be carefully made (Moore et al., 2008).

Inventory is just like any another unit of expense. The larger the inventory, the less money available for marketing and other basic necessities in the restaurant. Inventory management is crucial because most of the ingredients in this business is perishable. Most ingredients have limited shelf life of less than one week, others may have shelf life of two to three days. Failure to consume the products within the time allotted will cause these ingredients to be destined inside the garbage bin and together with the profit associated with it. Better inventory management and weekly food costing can then lower food cost.

According to Browne (2017), a good inventory management start from scratch. Inventories must be personally verified and counted even if temptation arises for delegation. There is no substitute of seeing what is in the shelf or cooler. This is part of inventory control and management. A software-based inventory control system can be set up to make sure that inventories will be replenished whenever it runs low.

Establishing inventory policy control will make sure that accurate inventory records are kept. There should be an assigned individual responsible for inventory management who will conduct inventory counting at least once a week. Expected usage must be confirmed and significant variances must be investigated at. Likewise, Poirier (2014) stressed that there is a need to take inventory frequently. For most items, it has to be done daily, on other items, twice a week after closing time or before opening the restaurant. Inventory must also be taken before the new shipment arrives adding the new stocks to the count not during delivery time as there will be a chance of double counting of an item. The area should be organized and cleaned up before taking the inventory. Expired items should be thrown and similar items should be put in the same shelf. An inventory tally sheet should also be used for daily, weekly, and monthly counts. Results should be tracked frequently. The first in-first out basis must be practiced. As much as possible, inventories on hand should be kept as low as possible to reduce theft and spoilage. There is a need to assign two people in counting inventories comparing the results to avoid anomalies. This will reduce error and stealing. The same staff should also be maintained when counting the inventories because they already know what to do. The weighing scales being used must be calibrated weekly to measure potions. Unit cost used should be standardized and the latest price should be used as standard for easy reference. The critical piece of the inventory puzzle is consistency, the same staff to do the counting. This is the easiest way to improve accuracy.

In this context, an analysis of the inventory management being employed in most restaurants in Quezon province would provide significant insights on restaurant management and business in general.

Purpose of the research

This study aimed to determine the effectiveness of the system used in inventory management of the selected small sized restaurants operating in Quezon province. Specifically, it sought to achieve the following objectives:

1. to describe the profile of the selected small sized restaurants in Quezon province;
2. to determine the system used in inventory management by selected small sized restaurants in Quezon province;
3. to identify the problems encountered by selected small sized restaurants in Quezon province in managing inventories;
4. to analyze the impacts of the problems on inventory management of the selected small sized restaurants in Quezon province; and
5. to ascertain the views of the selected small sized restaurant owners in terms of inventory management.

2. Literature Review

2.1 Inventory Systems

Based on the generally accepted accounting principles (GAAP), two types of inventory accounting methods exist and they are the periodic inventory method and the perpetual inventory method. In the past, periodic inventory method was used, but today, most retailers use the perpetual inventory method.

According to Hamlett (2017), primary use of the periodic inventory system occurred prior to the introduction of point-of-sale scanners and computers. Companies such as drug and hardware stores that sold lots of small merchandise found it easier to update their inventory balances periodically instead of trying to account for every item sold on a daily basis. The periodic inventory system allows a company to record sales of merchandise in a special account. When merchandise gets sold, the company records the revenue but does not record a cost of goods sold (CoGS) entry.

Likewise, the introduction of point-of-sale systems and computers greatly advanced the use of the perpetual inventory system. Perpetual inventory records each sale of merchandise and places an entry in the company's inventory account. This system also immediately reduces sold inventory from stock and adds inventory back to stock when a customer returns merchandise.

On the other hand, Mohr (2017) identified four types of inventory valuation under the perpetual inventory system namely: FIFO or the first in first out method of valuation applies the cost of the oldest inventory units to the cost of goods sold. This results in the inventory account on the balance sheet which closely approximates the most current value. This can artificially boost net profit. LIFO or the last in first out method of valuation applies the most recent inventory costs to the cost of gods sold. Here the income statement best approximates current costs. The inventory left over is valued at the oldest cost making the inventory in the balance sheet outdated when prices are rising. This valuation is not being used anymore. Average cost of valuation takes all of the units of inventory purchased and comes up with an average cost that is applied to both units still in inventory and those that have been used.

With a periodic inventory system, a company knows how much inventory it has at the beginning of a period and at the end of a period. This system does not track inventory on a daily basis; instead, it relies on periodic physical inventory counts to determine inventory levels. A perpetual inventory system keeps a running balance of a company's inventory. Every transaction that causes the decrease or increase of the inventory gets immediately recorded. The company that uses a perpetual inventory system always knows how much money it currently has invested in its inventory.

Both methods have its own advantages and disadvantages. Lack of a large initial investment is the major advantage of the periodic system. It requires very little resources, system and human, to implement. Number one disadvantage of this method is the inability to continuously update inventory levels. On the other hand, disadvantages of the perpetual inventory system include initial start-up cost and implementation time. Most perpetual inventory systems require a large initial investment and lots of resources to correctly implement the system. The advantages come in the form of more accurate financial statements and always updated inventory information (Hamlett, 2017).

2.2 Inventory Cost Management

Inventory cost management is concerned with accumulating costs by specific job. This method is appropriate when producing products with individual characteristics or when identifiable groupings are possible. Direct costs are composed of direct materials and labor are charged at the actual amounts incurred. Manufacturing overhead is charged using an estimated rate. Output that does not meet quality standards for salability is considered spoilage.

Process cost accounting is used to assign costs to relatively homogeneous products that are mass produced on a continuous basis such as petroleum products and threads. The products move from one unit to the other. Each unit adds more direct materials and conversion costs. It is here where the equivalent units of production (EUP) is computed. EUP is the number of finished products that could been produced using the inputs consumed during the period. There are two methods used in calculating EUP: the weighted average method and the first-in-first-out method.

Meanwhile, activity based costing is a response to the significant increase in the incurrence of indirect costs due to advancement of technology. ABC is a refinement of job-order and process costing. It involved identifying activities that constitute overhead, assigning the cost of resources consumed by activities and assigning the cost of activities to final cost objects. Activities are classified in a hierarchy according to the level of production process at which they take place.

As another approach, life cycle costing estimates the product's revenues and expenses over its entire sales life cycle beginning with research and development, the introduction and growth stages into the maturity stage, then finally to the harvest or decline stage also known as the value chain. It requires the accumulation of all costs over a product's lifetime from the inception to abandonment of the product. These costs are then allocated to production on an expected unit of output basis.

In relation to the present study, it implies that procedures need not be complicated in order to be useful. It must be understandable and user friendly using layman's terms. Hence, use of jargons or technical terms should be avoided.

3. Methodology

In order to facilitate the study, the researcher used the descriptive method of research. This method was used because of its appropriateness to the nature of the study which involved data gathering and tabulation of the data gathered, interpretation and analysis of the findings of the study.

The researcher designed and used a structured type of questionnaire based on the objectives of the study. It was one of the tools in gathering the necessary data. This research instrument has a series of questions for the purpose of gathering data from respondents which could be used for statistical analysis. The questionnaire was composed of five (5) parts. Part 1 identified the profile of the selected small sized restaurants in Quezon province. The next part determined the system used in inventory management by selected small sized restaurants in Quezon province. Part 3, identified the problems encountered by selected small sized restaurant in Quezon province in managing inventories. The impacts of the problems on inventory management of the selected small sized restaurants in Quezon province were determined in Part 4. The last part of the questionnaire ascertained the views of the selected small sized restaurant owners in terms of inventory management.

The researcher also used an interview guide. This research instrument was useful in getting the story behind the respondent's experiences. It helped the researcher pursue in-depth information around the topic. The same open-ended questions were asked to all the respondents of the study in order to facilitate faster interviews that were easily analyzed.

The researcher obtained lists of restaurants from the Department of Trade and Industry – Quezon for two prime towns from each district of Quezon province. Subsequently, the researcher identified at least five (5) restaurants where survey would be conducted to the employees of the selected restaurants. Furthermore, the researcher has chosen two (2) restaurant owners from each prime towns for the interview. Eventually, the researcher coordinated and requested permission from the owners of the selected small sized restaurants in Quezon province to conduct the study. After the permission was granted the researcher facilitated the survey and interview. Following a friendly greetings, the researcher gave a short explanation about the study. With a structured interview, all respondents were asked the same exact questions in the same order. All the questionnaires were retrieved after the respondents finished answering all the questions.

4. Results and Discussion

The study revealed that most of the respondents belonged to the age bracket 31 – 35 years old. According to Wood (2008) the restaurant industry is heavily dependent on young workers. Some 20.2 percent of the employees are in 30 to 39 years old age category. This could be attributed to the fact that individuals from this age bracket are apt to life's challenges. They are adventurous and willing to take risks. It was also revealed that majority of the respondents are male. This was proven by the study of Auxilio, Baldovino, Baybay, Bobadilla, Malimata, & Portillano (2006) where it was revealed that there were more male than female employees in the restaurant business.

Adams (2017) also confirmed that while there are more women helming restaurant kitchens and businesses, the industry is still dominated by the males. Majority of the respondents are single. According to the Philippine Statistics Authority (2013) survey of population of Quezon Province, there were more single male than female employees in the restaurant business.

Majority of the respondents are high school graduate or college undergraduates. This study shows that most of the small sized restaurants in Quezon Province hire employees with minimum educational attainment. This is due to the fact that most of the employees of the restaurant are service staff that does not require high level of education.

The selected small sized restaurants in Quezon Province have a capitalization of not more than fifteen million pesos. All are located in the busy streets of the municipality where they belong and in the property owned by the restaurant owners. The restaurant can be occupied by fifty to one hundred persons with maximum capacity of one hundred fifty persons. Regular employees are six to ten personnel. Most of the restaurants cater Filipino foods although some also served other dishes such as Taiwanese, Korean, American and Italian dishes.

Most of the restaurants are in existence for one to five years. This could be attributed to the booming of the Philippine economy during the time of President Noynoy Aquino where the Philippines was branded as having a Tiger Economy

4.1 Inventory system used by Small sized Restaurant in Quezon Province

Based on the findings of this study, the systems used by the selected small sized restaurants in terms of requisition is presented. There are number of supplies being taken out of the stockroom that are not actually needed in preparing the menu and that after the preparation of the food, these excess supplies were left anywhere in the kitchen. This system used can be corrected with the following suggestions:

Objectives	Task / Responsibilities	Responsible person	Time Frame
1. The number of supplies being taken out of the stockroom matched with the requisition slip	Check the supplies being taken out of the stockroom vs. the requisition slip	Stock custodian	Before the stock gets out of the stockroom
2. The stocks taken out of the stockroom were used in preparing the menu	Check the supplies used in the kitchen	Assigned kitchen staff	Every afternoon before closing of the restaurant
3. Gathering of the unused supplies in the kitchen	Fill out a return slip	Assigned kitchen staff	Every afternoon before closing of the restaurant
4. Return of the unused	Check that the number of	Stock custodian	Every afternoon before

supplies to the stockroom	supplies match with the return slip		closing of the restaurant

Document the return of the excess items to the stockroom.

Objectives	Task / Responsibilities	Responsible person	Time Frame
1. To encourage the kitchen staff in-charge to return the excess supplies	Simplify the form to be used	Stock custodian	As soon as possible
2. To properly monitor the return of the unused supplies to the stockroom	Check if the form is properly filled out	Stock custodian	Every afternoon before closing time
3. To avoid theft	Check if the number of supplies in the form matched the actual number of supplies returned	Stock custodian	Every afternoon before closing time

Proper shelving of canned juices or bottled water, soy sauce, vinegar and other liquid ingredients can help in the proper replenishment of supply to avoid buying it elsewhere when the need arises. This could be avoided, however, and the table below might be of help.

Objectives	Task / Responsibilities	Responsible person	Time Frame
1.Replenishment of canned and bottled supplies	Check if the stock for these supplies are already running low	Stock custodian	Every afternoon before closing time
2. Establish the number of items that will trigger re-order point	Re-order when the items reached the agreed limit	Stock custodian	As soon as possible
3. Make room for deliveries	Call the supplier 1 or 2 days ahead of time	Stock custodian	2 days

In addition, Fruits and vegetables must be properly cleaned and perishable foods, cooked meat / poultry stored inside the fridge must be consumed within three or four days. Cooked meat / poultry have a shelf life of 3 to 4 four days if stored inside the refrigerator, otherwise, the restaurant should have stored it inside the freezer where it could last one year when put in an aluminum foil or freezer paper in a tightly sealed container (Huffstetler, 2017). If cooked meat and poultry products are put inside the refrigerator beyond four days it will turn sour and the chance of food poisoning due to spoilage is inevitable, hence the following suggestions below:

Objectives	Task / Responsibilities	Responsible person	Time Frame
1. Consumption of meat and poultry products within 4 days	To see to it that cooked meat and poultry products are consumed within 4 days	Stock custodian	4 days
2. Avoid spoilage	Put the date on the items so that the four day rule will be followed	Sock custodian	Day 1 of storage
3. Follow the 4 day rule	Remove cooked meat and poultry products beyond 4 days from the refrigerator	Stock custodian	5th day

Another system of inventory that the selected small sized restaurants in Quezon Province is practicing is that new stocks are the ones in the front row in the refrigerator, old stocks which should be used first are behind the new ones inside the refrigerator which will eventually become waste materials. A tabular guide below can help the restaurant owner.

Objectives	Task / Responsibilities	Responsible person	Time Frame
1. Ensure that recently cooked foods are behind earlier leftovers	Arrange foods inside the refrigerator according to date	Stock custodian	daily
2. Practice the first in first out policy (FIFO)	Take out leftover with the earliest date following the 4 day rule	Stock custodian	daily
3. Avoid spoilage	Remove foods that are more than 4 days old	Stock custodian	daily

4.2 Problems encountered in Inventory Management

Problem: Chef dictates what to buy which may result to over stock of inventory

It is very typical for chefs to ask for ingredients that they need when cooking a menu. It is very natural for them to dictate the kitchen staff to buy the needed supply when the same is not available in the kitchen. To avoid this problem, the stock custodian should always provide requisition slips inside the cooking area so that staff will be reminded to check first with the stock custodian if the supply is available. In the same way, the owner of the restaurant should always put a budget for the daily expenses so that the staff will make no additional expenses when it is already depleted. Below is a guide to avoid this problem.

Objective	Task / responsibility	Person responsible	Time Frame
1. Ensure strict use of the requisition form	Requisition forms must be always available even in the kitchen	Stock custodian	Daily
2. Ensure that the budget for daily expenses on certain items are maintained	Provide budget for the day and list of expenses to be incurred	Owner / restaurant manager	Daily

Problem: Large volume of meat / fish and vegetable is purchased in advance

Restaurants tend to overstock to avoid embarrassment when customer order food which the establishment cannot provide due to lack of supplies. In doing so, the restaurant overdoes it by buying in large volume of meat, fish and vegetables. Meat and fish can be stored in the freezer for a longer period, but not in the case of vegetable especially the green leafy vegetables which can easily spoil after a couple of days. This will result to huge volume of vegetable spoilage. Other than this, buying huge amount of unneeded supplies distort the financial position of the business. To solve this problem, the researcher devised the table below in order to help the restaurant.

Objective	Task / responsibility	Person responsible	Time Frame
1. Minimize purchase of meat, fish and vegetable	Monitor purchase of meat, fish and vegetable	Owner / restaurant manager	Daily
2. Avoid enticement of supplier	Calculate daily usage of meat, fish and vegetable	Owner / restaurant manager	Daily

Problem: Vegetable spoilage is huge

Most vegetables spoil after a couple of days. On top of this, vendors will entice restaurant owners / purchasers to buy in bulk reiterating that they will give discounts to vegetables bought in volume. This is a problem of majority of the selected small sized restaurants in Quezon Province.

To solve this problem, it is recommended that restaurants should choose a supplier who will deliver the vegetables daily. When vegetables come from a vegetable dealer, chances are, prices are lower than when they are bought in a public market.

In doing so, the restaurant may make a list of the commonly used vegetable in the restaurant so that these vegetables will be the ones ordered to the supplier. When the vegetables arrive, the stock custodian must group the vegetable in manner that all leafy green vegetables are grouped together, all carrots are in a vegetable bin, all onions are in one basket and many more. Below is a tabular guide/suggestion that will help restaurant owners.

Objective	Task / responsibility	Person responsible	Time Frame
1. Control the purchase of vegetable	Maintain a vegetable supplier	Owner / restaurant manager	Yearly
2. Systematize re-order	Prepare a list of commonly used vegetables	Owner / restaurant manager	Daily
3. . Minimize spoilage	Group vegetables accordingly	Stock custodian	Daily

Impact of the Problems on the operation of the Business

Majority of the selected employees were convinced that the problems encountered by the different small sized restaurants in Quezon province in inventory management have impact on their operations. A lot of them disclosed that cash flow was affected due to buying of supplies which are still available. Problem in inventory management could really result into over stock of inventory which could ultimately affect the cash flow of the restaurants.

Below is a general guide for inventory management in a restaurant

Guide for Inventory Management in a Restaurant	
Develop a system to follow and train employees	• Train employees of the restaurant so that they will know how to conduct an inventory check and be of help the need arises. • Employees must be familiar with terminologies used in the inventory process.
Safeguard from mistakes	• Assign at least 2 different employees to make inventory counting to prevent anomalies and inconsistencies. • Structure an inventory sheet to match the kitchen's layout.
Manage inventory consistently	• Give incentives to encourage other employees to assist in this endeavor. • Be proactive by doing the inventory process on a regular basis • Always take the inventory counting on the same day at around the same time to minimize inconsistencies and inaccuracy • As much as possible, assign the same employee or group to take the inventory count.
Establish a First In First Out (FIFO) and First Expiry First Out (FEFO) attitude	• Use the older stocks first before using the new ones to avoid spoilage. • All stocks must be labelled with the date of receipt and expiry dates. • Use stocks that will expire the soonest • Monitor stocks that is about to run out
Examine losses	• Determine whether losses came from human error or theft and limit them. • Do not overstock to prevent wastage.

5. Conclusion

After evaluating the findings gathered, the following conclusions are drawn:

1- Most of the employees of the small-sized restaurants in Quezon Province were in the middle age; majority was male, single, and high school graduate or college undergraduate. Most of them have a capitalization of not more than 15 million pesos. All are located in the busy area in the municipality on a property owned by the restaurant owner. Most have a maximum capacity of 150 persons. Regular employees are six to ten personnel. Most cater Filipino foods. Most of the restaurants can be considered new in the business.

2- Most selected small-sized restaurants in Quezon Province use the FIFO or First In First Out method in inventory management. Others practice the JIT or just-in-time theory where supplies like ingredients for a special menu will be ordered only when needed. These supplies are not always seen in the stockroom due to the rarity of usage.

3- Problems encountered on inventory management by selected small-sized restaurants in Quezon Province were: the chef dictating what to buy resulting to overstock of inventory; large volume of meat/fish and vegetable purchased in advance; prices of food not being reasonable; food and beverage inventory levels not being counted (dining area); and huge vegetable spoilage.

4- Perceived impact of the problems on inventory management of the selected small-sized restaurants in Quezon Province are overstock of inventory affecting the cash flow; distortion of the financial position of the restaurant; prices of food in the restaurant not being reasonable; food and inventory levels not accounted for in the dining area resulting to decrease in profit; huge amount of vegetable spoilage.

5- Majority of the small-sized restaurant owners in Quezon Province have their inventory management done by the owner of the restaurant using the FIFO method. Physical inventory count is done daily on certain items like canned goods, bottled water, soft drink, and canned juice to minimize theft and anomalies. All other inventory counts could be done weekly.

References

[1] Adams, K. (2017). *A fine line : Women's journey in the male-dominated restaurant industry.* Retrieved November 15, 2017 from https://www.foodabletv.com/blog/2017/3/25/a-fine-line-womens-journey-in-the-male-dominated-restaurant-industry
[2] Altametrics. (2015). *A step-by-step guide on how to manage inventory in a restaurant*. Retrieved November 15, 2017 from y
[3] Auxilio, M. C. E., Baldovino, S. O., Baybay, I. A., Bobadilla, C. P., Malimata, G. J., & Portillano, L. T. (2006) *Training programs of selected local restaurants as perceived by personnel officers and its implications to human resource development in Lucena City.* Unpublished undergraduate thesis. St. Anne College Lucena, Inc., Lucena City.
[4] Black, M. (2017). *What is a person who keeps inventory*? Retrieved November 15, 2017 from http://smallbusiness.chron.com/person-keeps-inventory-73262.html
[5] Botham, J. (2011). How to run successful restaurant 1st edition. New Delhi : Discovery Publishing House.
[6] Browne, C. (2017). *How to keep track inventory in a restaurant.* Retrieved November 15, 2017 from http://smallbusiness.chron.com/keep-track-inventory-restaurant-23415.html
[7] Center for International Trade Expositions and Missions. (2017). *Philippine food industry*. Retrieved November 15, 2017 from http://www.ifexphilippines. com/en/General-Info/Philippine-Food-Industry
[8] Department of Trade and Industry. (2008). Guide to the magna carta for micro, small and medium enterprises. Makati City : Bureau of Micro, Small and Medium Enterprise Development.
[9] Entrepreneur Philippines , Inc. (2011). *Home-based business idea : Carinderia*. Retrieved November 15, 2017 from https://www.entrepreneur.com.ph/business-ideas/home-based-business-idea-carinderia
[10] Escalona, C. A. E., Fabrea, R. L. S., Idea, C. D., Indicio, M. R. R., Jalbuena, J. K. N., & Jamin, F. R. S. (2013). Prevailing practices of eateries in Lucena Grand Central Terminal Complex. Unpublished Thesis. St. Anne College Lucena, Inc., Lucena City.
[11] Evans, J.R. (2014). *Total quality management* (2nd ed.). Pasig City, Philippines: Cengage Learning Asia.
[12] Geronimo, J.J. (2015, March 18). ASEAN integration and better opportunities in PH. Retrieved from http://www.rappler.com/previous
[13] Romine, S. (2008). *The shelf life of fruits and vegetables*. Retrieved from http://www.sparkpeople.com/resource/nutrition_articles.asp?id=1153
[14] Friddle, J. R. (2017). *Heijunka : The art of leveling production*. Retrieved November 15, 2017 from http://www.isixsigma.com/methodology/lean-methodology/heijunka-the-art-of-leveling-production/
[15] Guasch, J. M., De Gracia, E. H., & Esgra, C. B. (2008). Hotel and restaurant management an introduction. Pateros, Manila : Grandwater Publications.

[16] Jane, M. (2017). *How often should a small restaurant do inventory?*. Retrieved November 15, 2017 from http://smallbusiness.chron.com/should-small-restaurant-inventory-22550.html

[17] Kessler, S. (2003). *Total quality service: A simplified approach to using the Baldridge Award Criteria.* Milwaukee, Wisconsin: ASQC Quality Press.

[18] Kokemuller, N. (2017). *Just in time inventory definition*. Retrieved November 15, 2017 from https://smallbusiness.chron.com/just-in-time-inventory-definition-23475.html

[19] Hamlett, K. (2017). *Periodic inventory system vs. perpetual inventory system*. Retrieved November 15, 2017 from http://smallbusiness.chron.com/periodic-inventory-system-vs-perpetual-inventory-system-4033.html

[20] #HOTTAB (2016). *Restaurant inventory problems : 3 things you have been doing wrong*. Retrieved November 15, 2017 from http://hottab.net/restaurant-inventory-problems-3-things-wrong/

[21] Martell, N. (2016). *You can take it with you : The etiquette of the doggie bag.* Retrieved November 15, 2017 from http://blog.opentable.com/2016/you-can-take-it-with-you-the-etiquette-of-the-doggie-bag-hackdining/

[22] Mealey, L. (2016). *Use these tips to effectively manage a restaurant.* Retrieved November 15, 2017 from https://preferredpayments.com/use-tips-effectively-manage-restaurant/

[23] McAllister, D.B., Ferrel, O.C., Ferrel, L. (2003). *Business and society: A strategy approach to corporate citizenship*. New York: Houghton Mifflin Company.

[24] Micro, Small and Medium Enterprise Development Council. (2008). Micro, Small and Medium Enterprise Development Plan 2011 - 2016. Makati City : Gepartment of Trade and Industry.

[25] Mohr, A. (2017). Inventory costing methods accounting under a perpetual inventory system. Retrieved November 15, 2017 from http://smallbusiness.chron.com/ inventory-costing-methods-accounting-under-perpetual-inventory-system-13302.html

[26] Moore, C. W., Petty, J. W., Palich, L. E., & Longenecker, J. G. (2008). *Managing small business an entrepreneurial emphasis* (14^{th} ed.). Mason, Ohio : Cengage Learning.

[27] Myers, T. (2016*). Calculating the new cost of food spoilage.* Retrieved November 15, 2017 from https://www.fastcasual.com/blogs/calcuatling-the-new-cost-of-food-spoilage/

[28] Huffstetler, E. (2017). *The Shelf life of meat and other frozen foods*. Retrieved December 14, 2017 from https://www.thebalance.com/the-shelf-life-of-meat-and-other-frozen-foods-1389304

[29] Nisbets Plc. Catering Equipment Supplies (2017). *Food storage in restaurants*. Retrieved November 15, 2017 from https://www.nisbets.co.uk/foodstorage

[30] Philippine Statistics Authority (2013). *Population of Quezon more than triple in fifty years.* Retrieved November 15, 2017 from https://psa.gov.ph/content/population-quezon-more-triple-fifty-years-results-2010-census-population-and-housing

[31] Poirier, G. (2014). *How to take inventory : 10 best practices*. Retrieved November 15, 2017 from http://www.livelenz.com/resources/blog/categories/inventory-and-food-costs/inventory-best-practices/

[32] Rebullida, M.L.G, Abdullah, M.A., Baker, I.B. (2000.) *Small and medium enterprises in Asia Pacific countries: Development prospects for better productivity and quality of SMEs*. New York: Nova Science Publishers.

[33] Restaurant Engine (2017*). 5 ways to deliver excellent customer service at your restaurant*. Retrieved November 15, 2017 from https://restaurantengine.com/ deliver-excellent-customer-service/

[34] Restaurant Times (2017*). 5 inventory management mistakes to avoid at your restaurant.* Retrieved November 15, 2017 from https://www.posist.com/restaurant-times/posist-product/5-inventory-management-mistakes-avoid-restaurant.html

[35] Santos, M. (2010) Turo-Turo : *Fastfood's predecessor in pinoy culinary history*. Retrieved November 15, 2017 from http://www.asianjournal.com/aj-magazine/midweek-mgzn/417-turo-turo-fastfoods-predecessor-in-pinoy-culinary-history.html?showall=1

[36] StillTasty LLC. (2017) *Food storage - How long can you keep*. Retrieved November 15, 2017 from http://www.stilltasty.com/fooditems/index/16788

[37] Villanueva, B. V. (2010). *Restaurant and cafeteria management service*. Intramuros, Manila : Mindshapers.

[38] WebFinance Inc. (2017). *Management*. Retrieved November 15, 2017 from http://www.businessdictionary.com/definition/management.html

[39] Weedmark, D. (2017). *Theories on inventory systems*. Retrieved November 15, 2017 from http://smallbusiness.chron.com/theories-inventory-systems-81727.html

[40] Wensing, T. (2011). Periodic review inventoy systems. Ingolstadt, Germany : 1Springer.

[41] Wood, R. C. (2008), *The SAGE handbook of hospitality management*. Thousand Oaks, California : SAGE Publications Ltd.

[42] Wyatt, S. (2013). *First In First Out (FIFO) food storage method*. Retrieved November 15, 2017 from https://hubpages.com/food/Food-Storage-First-In-First-Out-Method