

Inventory Control Practices and Financial Performance of Robina Fresh Meats

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Abstract

The study aimed to determine the effectiveness of inventory control practices and financial performance of Robina Fresh Meats. Descriptive method of research was used. Survey questionnaires were distributed to 200 employees related to inventory control. The inventory control practices of Robina Fresh Meats were assessed as very effective as to inventory count and label accuracy; and effective as to ordering and stock level determination, spoilage control, and inventory system. Financial performance was assessed as very satisfactory. Results showed a significant relationship between “ordering and stock level determination” and “sales growth” and between “inventory count and label accuracy, and inventory system” and “sales growth, inventory cost reduction and increase in net profit”. The researcher recommended to keep a balanced stock levels in outlet storage, avoid overstocking, do re-forecast for an additional order if needed, explore the existing inventory system, observe strict compliance with the inventory control and provide continuous training.

Keywords – inventory control practices, financial performance, Universal Robina Corporation

INTRODUCTION

In the Philippines, Universal Robina Corporation (URC) is among of the biggest agro-industrial and commodity foods businesses with its completely integrated operations concentrating on its business model, from farm to fork. Just like large businesses URC maintains inventories that pertain to stock of items used to meet the customers demand. Hence, a business not having enough inventory runs the risk of losing sales. Meanwhile having too much inventory is costly and that is why every business should manage inventories properly and efficiently.

Inventory Control

Inventory refers to list of the items or goods that are held in stock which serves as a buffer between item’s supply and demand [1]. It was used to meet contemporary demands of customers to satisfy one’s needs [2]. Having inventories are essential because of certain situations such as predictability of goods or items, unreliability of supply, uncertainties in demand, price protection, volume discounts and lesser ordering costs should be considered [3]. But having too much inventory can decrease a company’s cash in because of sitting inventories in warehouse while lack of inventory can lose a company an opportunity to sell [4].

Inventory control or also known as stock control is used to maintain and manage inventory through updating item inventory, inventory valuation, setting of item policies like lead-time and replenishment planning. Consequently, keeping inventory at its best possible levels is very important in a business but having too much inventory will lead to higher holding costs, whereas having insufficient inventory will result to no sales and costly because there is a tendency that customers will go to competitors to sustain their demand [5].

To have an effective inventory control, policies are needed to balance the conflicting goals on supply of replenishment orders and requirements of demand. Replenishment orders are raised on a per level basis which is known as the re-order level policy. This control parameter is a way of managing stocks using a re-order level policy and implies that the stock balances appear to be operating effectively. Inventory control aims to attain maximum efficiency in the production and sales while minimizing the cost. On the other hand, controlling inventories of perishable products are challenging wherein some of the food retail industry problems are fluctuating demand, perishability and high level of customer service. Stationary demand, short shelf life and LIFO inventory depletion may give good results through having a constant order policy [6].

Financial Performance

Financial performance serves as a measure of the overall financial health over a given period which can be classified into sales growth, inventory cost reduction and increase in net profit. To attain the objective of a business to increase net profit is to have an interrelation between operational and financial performance measures [7].

Managing inventory is very essential as it is one of the most significant assets that business has because it generates revenue. Having a better management of inventories can release capital productively [8].

One strategy that stimulates the use of practices like total quality management (TQM), kanban, and just-in-time (JIT) is called lean production. Applying the lean production will have an impact to the company's financial performance in such a way that affects several operational performance measures like manufacturing cycle times, labor productivity and delivery performance. Implementing lean production will result to improved operational outcomes like higher quality and shorter throughput times and lower inventories. Considering and executing all the practices of a business will affect the business ROI and ROA [9].

Cost reduction and quality improvement are important things to consider in a business. Through the use of various inventory control practices or strategies, reduction in cost and imperfect production can be reduced and company's performance will improve [10].

Optimal inventory policy was used for perishable items which correlates the demand of items to price and time. The profitability of perishable items can be of help through inventory system as it tracks the replenishment period of an item and determines the optimal pricing and quantity order as discussed [11]. Optimizing profit for perishable items is not easy as retailers are doing many ways to earn profit in consideration of freshness or deterioration of items [12]. Stochastic demand, constant lifetime and lead time are things that operates in perishable inventory. Using the inventory system, it provides continuous review of a shelf life, level and ordered quantity of an item. This system will help in reducing cost on perishable goods such as ordering and carrying inventory, obsolescence and shortage costs. The inventory is being controlled by the system through endless review and re-order of the item once the inventory level went down making an allowance for lead time [13].

Ordering and Stock Level Determination

On assumption in determining economic order quantity is that inventory cost has two parts, namely the ordering costs and carrying costs. Economic order quantity is the size of the order at which these two costs are equal. [14].

Monitoring of stock level is important as having a high level of inventory can cause high inventory and deterioration costs and purchasing costs due to increase in demand. For perishable items, more customers will entice to buy if shelf space will increase [15]. Monitoring of stock level is essential because it determines the demand rate. Ordering larger quantities result to higher inventory costs but higher revenues. The objective of the businessmen is to maximize profit rather than to minimize inventory costs [16]. When the inventory level becomes zero, shortage will occur and might affect the financial performance of a business [12]. Having high inventory level will tend to have higher cost but will maximize the profit of a business as the retailer ordered, received the items and displayed in the shelf for selling and inventories in stockroom decreased and reordered again [17].

Managers are using the system to forecast short term sales to avoid shortage and overstock [18]. In forecasting, setting parameters of the inventory control policy and analyzing actual level of inventory are considered [19]. Short product life cycles, increased product variety and globalization of sourcing and manufacturing are the results of forecasting inventories [20].

Spoilage Control

Among the inventory methods used for perishable goods is the First-In-First-Out or FIFO. This model suggests that the first goods purchased shall be the first goods sold [21].

Shrinkage occurs once deteriorated items are unsold. When the item is about to deteriorate or meet its ageing, discount is offered in order to boost sales [12]. An important part to consider in deterioration of meat quality is the handling of livestock in pre-slaughter and post-slaughter. Nowadays one of the ways to preserve meat is controlling the temperature through chilling, freezing and super chilling to control growth of microorganisms to prevent spoilage [22]. Controlling the spoilage of meats is very important to the management resulting to extended shelf life but keeping the nutritional value, and other characteristics such as texture and flavor [23]. Refrigeration is one spoilage control measure which focuses on the low temperature to increase the shelf life of perishable goods. As the temperature decreases, the growth rate slows and the growth stops [24]. Separation of meat to seafood products in storage are considered as these products are highly perishable and can spread bacteria on each which cause contamination on both products [25]. Furthermore, having the so-called preventive-level

data analysis and planning is a good indicator for modern approach to food safety and quality particularly to highly perishable goods like meats and poultry [26].

Inventory Count and Label Accuracy

Inventory count is an inventory control practice which verifies the inventory on hand of a business is equal to inventory being documented in accounting records. Differences between actual physical inventories versus amount in books are due to breakage, spoilage and theft [27]. Inventory record inaccuracy (IRI) is a variance between recorded inventory and actual inventory count and it is a cyclical problem which greatly affects the inventory stocks as to ordering, handling and forecasting. It affects the financial performance of a business by losing sales, penalties, re-scheduling, sub-optimal planning and through resulting to more frequent use of small transport vehicle [28].

Barcodes are very useful nowadays as it reduces the possibility of human error as occurrence of inaccuracies are due to manually encoding of data in the system. However, discrepancies in inventory data capture processes may still take place and are due to errors in transaction, misplacement, theft and spoiled products. Furthermore, an analytical approach was applied to help reduce errors in inventory data [29]. Periodic inventory audit is the most common method in maintaining inventory record accuracy wherein inventory errors accumulated until an inventory count is piloted [30]. The inventory audits or accounting personnel are the one responsible in cycle count, one for counting the inventories while some are fixing the inventory system [3]. Random sample cycle counting, ABC inventory cycle counting, and inventory counting based on costs and location, are some strategies for inventory cycle counting. Having a label or tagging of items will lead to inventory records accuracy [31].

Point of sale (POS) system is used in supermarkets in reconciling data of inventory and sales transactions which is interface with the inventory system. POS is interface with inventory control system; the inventory system allows making intelligent ordering decisions based on available stock, consumer behavior and historical data [32].

Inventory System

Inventory system with applications of operations practices is a powerful tool in attaining competitive edge and having an inventory system is an important control because it offers the business an up-to-date perpetual inventory of most inventory items [33]. It is purely dependent on stock level with carrying cost per unit and demand rate in consideration of minimizing total inventory cost which are the ordering and carrying costs. The optimal strategy for inventory system is acquired through balancing properly the ordering and holding costs, and gross profit [34]. Role of an inventory system is to monitor and keep inventory costs such as holding, ordering and shortage at a minimum level. Moreover, it determines the stock levels that should be maintained, when stocks have to be replenished and the size of orders that should be placed [8]. Automated ordering as well as replenishment systems which identifies what, when and how much to order is what retailers are depending on. Through radio frequency identification (RFID), it helps the company in identifying and eliminating sources of errors [35].

Due to backordering or lost sales and payment delay of companies, a model pertaining to deteriorating inventory was became trend in order to check the proper inventory control and system. Inventory system basically focus on price discounts, lost sales, single or multiple items, one or two warehouses, average cost or discounted cash flow and payment delay in order to maximize the profit and avoid costs and losses [36]. Using a genetic algorithm and linear programming models in the inventory distribution system will help distributors to minimize the balance payment as financial safety and maximize the sales in consideration with business survival [37].

Managing a meat or poultry products is not easy. Thus, inventory system is needed to make sure that data are being recorded in a real-time basis. Some companies are using Traverse Food Software to attain traceability and have regulatory and compliance reports. This system will cover all the bases, with traceability and make standard results. This system will also keep track of company's critical data. However, there is always room for improvement on any software no matter how efficient the system is for future modifications [31].

OBJECTIVE OF THE STUDY

The purpose of the study was to assess the level of effectiveness of the inventory control practices and financial performance of Robina Fresh Meats, as well as the relationship between these variables.

MATERIALS AND METHODS

The researchers applied the descriptive approach of research in order to determine the level of effectiveness of Robina Fresh Meats’ inventory control practices and financial performance. This provided the researchers essential facts and understanding to all the vital data gathered in the study.

Research Instrument

Survey questionnaire and interview were used by the researcher as the research instrument. The questionnaire was designed to capture enough and relevant information from the respondents. It was constructed based on inventory control practices of Robina Fresh Meats and distributed survey questionnaires to 20 respondents to conduct reliability test and validated by expert. The survey questionnaire has 3 parts. Part 1 focuses on the respondents’ profile while part 2 is for assessing the level of effectiveness of inventory control practices of Robina Fresh Meats and part 3 is also assessing the financial performance of Robina Fresh Meats. The instrument for part 2 was designed in the modern Likert fashion to measure the answer of the respondents on their perceptions on the effectiveness of inventory control practices of Robina Fresh Meats. Each category was classified into five (5) – point scale ranging from (5) “very effective”, (4) “effective”, (3) “somewhat effective”, (2) “less effective”, to (1) “not effective”. The instrument for part 3 was structured using the performance rating to measure the respondents’ perceptions on the degree of financial performance of Robina Fresh Meats. Each category was classified into five (5) – point scale ranging from (5) “excellent”, (4) “very satisfactory”, (3) “satisfactory”, (2) “fair”, to (1) “poor”.

Description of the Respondents

The respondents were the 200 retail personnel of Robina Fresh Meats’ retail outlets in Luzon. They include the store managers, the store meat supervisors and those personnel whose positions are related to inventory.

Profile of the Respondents	Frequency	Percent
Age		
30 years old and below	96	48.0
31-40 years old	95	47.5
41years old and above	9	4.5
Total	200	100.0
Sex		
Male	155	77.5
Female	45	22.5
Total	200	100.0
Civil Status		
Single	103	51.5
Married	91	45.5
Legally Separated	6	3.0
Total	200	100.0
Job Position Level		
Rank and File	131	65.5
Top Management	63	31.5
Middle Management	6	3.0
Total	200	100.0
Highest Educational Attainment		
Vocational	93	46.5
Bachelor’s Degree	75	37.5
High School	23	11.5
Master’s Degree	9	4.5
Total	200	100.0
No. of Trainings Attended		
3 and below	139	69.5
4 to 6	40	20.0
7 to 9	13	6.5

10 and above	8	4.0
Total	200	100.0
No. of Years of Experience		
3 and below	131	65.5
4 to 6	51	25.5
7 to 9	18	9.0
Total	200	100.0

Data Gathering Procedure

The researchers used survey questionnaire as the main tool in gathering pertinent data needed in the study. Each representative in the outlet who was ready to participate got a letter with the data about the research and a questionnaire. The survey questionnaires were distributed in Robina Fresh Meat outlets in Luzon during September 2019 month-end inventory count and store visit. At the point when store managers, store fresh meat supervisors or other inventory related position have finished the surveys, the information accumulated was encoded and tabulated and were given to statistician for data analysis.

Statistical Treatment of Data

Data collected through questionnaires were coded, tallied, tabulated and analyzed to summarize and interpret the results using descriptive statistical measures such as Frequency Distribution, Percentage Distribution, Weighted Mean, Pearson Relationship Test, T-Test, Likert Scale and Performance Scale.

RESULTS AND DISCUSSION

Table 1. The Level of Effectiveness of Inventory Control Practices of Robina Fresh Meats in Terms of Ordering and Stock Level Determination

Ordering and Stock Level Determination	Mean	Verbal Interpretation
1. Forecasting for weekly orders	4.60	Very Effective
2. Inventory counts are held first before placing orders	4.43	Effective
3. When the inventory level of an item drops to the minimum, that item is reordered	4.41	Effective
4. Weekly assessment on level of stocks	4.39	Effective
5. Keeping high-demand items in stock	3.41	Somewhat Effective
Grand Mean	4.25	Effective

The survey was conducted during the African Swine Fever (AFS) outbreak wherein this practice of keeping high-demand items in stock indicates that the results are temporary only. AFS is a highly transmissible hemorrhagic viral illness of native and wild pigs [41]. Robina Fresh Meats maintain a balanced supply of their products to satisfy customer demand and to avoid losses in case of overstocking since customer’s behavior nowadays is unpredictable due to AFS scare. Hence, keeping high demand stocks is crucial particularly to perishable items as it denotes high risk on losing freshness, quality and prone to deterioration. Having high inventory level will tend to have higher cost if not sold [19]. In addition, controlling of stocks are important because it avoids the stores from losing products and sales [42].

Table 2. Level of Effectiveness of Inventory Control Practices of Robina Fresh Meats in Terms of Spoilage Control

Spoilage Control	Mean	Verbal Interpretation
1. When shelves are being restocked, the newer items are always placed behind older ones	4.73	Very Effective

2. Daily checking of temperature of the storage and quality of means	4.65	Very Effective
3. Separate pork and beef to seafood and processed meat inventories to avoid contamination	4.58	Very Effective
4. Weekly disposition of spoiled meats	4.30	Effective
5. When meats are about to reach its ageing, it is distributed to outlets that needed the meats or reduce its market price through promo	4.24	Effective
Grand Mean	4.50	Effective

Robina Fresh Meats transfer stocks from one outlet to another outlet if the item is about to reach its ageing or the outlet has an oversupply of meats in order to control spoilage. However, due to moving of meats from another outlet might tend to reduce the quality of meats and might deteriorate if the outlet for transferring is too far due to temperature in meat trucks. On the other hand, another practice is reducing market price through giving meat promo wherein this is implemented to avoid meat losses through spoilage. Thus, when the item is about to deteriorate or meet its ageing, an optimal discounting policy is offered in order to boost sales [14].

Table 3. Level of Effectiveness of Inventory Control Practices of Robina Fresh Meats in Terms of Inventory Count and Label Accuracy

Inventory Count and Label Accuracy	Mean	Verbal Interpretation
1. Inventory audits and cycle counts are performed monthly	4.79	Very Effective
2. Inventories are tagged and labelled accordingly	4.77	Very Effective
3. Inventories are categorized accordingly	4.67	Very Effective
4. Physical inventory counts of butchers and team leaders are performed weekly to validate automated inventory counts	4.57	Very Effective
5. Usage of point-of-sale (POS) and inventory system is implemented to count inventory items	4.37	Effective
Grand Mean	4.63	Very Effective

Robina Fresh Meat outlets are using POS that is interface with inventory system called SAP to automatically update inventory records and keep track of sales. However, the uploading of sales in SAP from POS is not timely and causes delay in recording monthly sales. Hence, POS is used because supermarkets would like to increase efficiency, greater accuracy, inventory management, reduces time spent on administration and increase store profitability as POS is interface with the inventory control system and through POS, the inventory system will easily get the inventory data needed for analysis and managerial decisions in terms of sales as well as consumer behavior [34].

Table 4. Level of Effectiveness of Inventory Control Practices of Robina Fresh Meats in Terms of Inventory System

Inventory System	Mean	Verbal Interpretation
1. Usage of sales portal to inventory system (SAP) is implemented to track sales and monitor inventories	4.31	Effective
2. Monthly comparison of on hand and system generated items with reports providing remarks if there is any	4.27	Effective
3. Correcting inventory balance in the system if there is a discrepancy versus physical count, provided that there is a valid reason	4.21	Effective
4. Checking of transferred stocks from one outlet to another and outlet deliveries	4.13	Effective
5. Updates given by responsible person on each outlet for proper recording of meat transfers, cancelled order and disposal to the system	4.01	Effective
Grand Mean	4.18	Effective

Some functions of the inventory system used by Robina Fresh Meats which is the SAP is being done manually by assigned personnel to update inventory records like meat transfers from one outlet to another, cancelled order and meat disposal which is prone to human errors since it is not updating automatically by the system itself. Hence, some inventory reports in SAP is not always been updated on time which resulted to delays and not accurate when it comes to decision making. Furthermore, the main purpose of using inventory system is to maximize profit in a way of tracking orders, sales and stock levels in the system. Hence, the optimal strategy for inventory system is acquired through balancing properly the ordering and holding costs, and gross profit [36]. In general, the respondents recognized that the inventory system of Robina Fresh Meats was effective.

Table 5. Financial Performance of Robina Fresh Meats

Financial Performance	Mean	Verbal Interpretation
1. Sales Growth	4.32	Very Satisfactory
2. Inventory Cost Reduction	4.15	Very Satisfactory
3. Increase in Net Profit	4.02	Very Satisfactory
Grand Mean	4.16	Very Satisfactory

Sales growth, inventory cost reduction and increase in net profit were all very satisfactory. Net profit of Robina Fresh Meats was affected because of African Swine Fever (ASF) scare. Some people stop buying pork and tend to shift to seafood and chickens. However, Robina Fresh Meats are formulating strategies to increase or maximize their assets and net profit such as limiting quantity ordered to avoid costs and reaching to customers that Robina Fresh Meats is an ASF-free through guaranteed certificate from National Meat Inspection Service (NMIS). Thus, a retailer can maximize profit through reducing the order quantity as there is a cost for storage and if item lose its freshness and become deteriorated it will create an additional cost [14].

Table 6. Relationship between the Level of Effectiveness of the Inventory Control Practices and Financial Performance of Robina Fresh Meats

Inventory Control Practices	Financial Performance	r-value	p-value	Remarks
Ordering and Stock Level Determination	Sales Growth	.194	.006	Significant
	Inventory Cost Reduction	.100	.159	Not Significant
	Increase in Net Profit	.123	.083	Not Significant
Spoilage Control	Sales Growth	-.011	.876	Not Significant
	Inventory Cost Reduction	-.008	.916	Not Significant
	Increase in Net Profit	.026	.717	Not Significant
Inventory Count and Label Accuracy	Sales Growth	.217	.002	Significant
	Inventory Cost Reduction	.247	.000	Significant
	Increase in Net Profit	.219	.002	Significant
Inventory System	Sales Growth	.319	.000	Significant
	Inventory Cost Reduction	.340	.000	Significant
	Increase in Net Profit	.349	.000	Significant

There is a significant relationship between ordering and stock level determination and sales growth. It is because Robina Fresh Meats properly assessed the level of stocks and timely placement of forecast for weekly orders which has a significant role in sales growth as the customer’s demand will suffice as there is enough and balanced inventory items in the shelves and will not experience an opportunity loss because of shortage in stocks resulted from inaccuracy of forecast and assessment on level of stocks. Hence, inventories are essential in making sales of a business thus maintaining consistent levels of inventory is important. Having too much inventory can decrease a company’s cash in because of sitting inventories in warehouse while lack of inventory can lose a company an opportunity to sell [4].

Inventory count and label accuracy has a statistically significant correlation between sales growth because Robina Fresh Meats’ butchers performed inventory counts every week as a way of assessing inventory level and inventory audits and cycle counts are implemented every end of the month to verify the inventory on hand versus recorded inventory in the system in which through determining the remaining stocks will able to forecast accurately for the weekly orders which greatly affect the company’s sales growth. Hence, retailers performed cycle count monthly after doing the physical inventory count to track

and check the inventories in the system. Cycle count is implemented to fix any discrepancies in shelf and record counts which it is counting statistically significant cross-section of inventory [3]. On the other hand, inventory count and label accuracy has a statistically significant correlation between inventory cost reduction because physical inventory counts are performed monthly in Robina Fresh Meats to assess inventory level in order to determine how many orders will be place for the next coming days wherein knowing the re-order point can ensure that a business never order too much and never order too little and risk stock outs and risk obsolescence as resulted on reducing inventory cost. Meanwhile, inventory count and label accuracy has a significant correlation with increase in net profit because as inventory counts were performed weekly and monthly it will determine the number of inventories left and identify on what stock keeping units (SKU's) or high valued meat cuts should be ordered to increase more net profit. Thus, doing a physical inventory count is a sizable task as several procedures are to be followed in order to make sure that there will be no uncounted stocks or been count twice. It is an inventory control practice which verifies the inventory on hand of a business is equal to inventory being documented in accounting records [29].

Inventory system has a statistically significant correlation between sales growth because Robina Fresh Meats' inventory system is used to track sales and inventories wherein it affects the sales growth if the inventory system is not updated on time and showing enough level of stocks but in reality, there is no stocks which will highly impact on the quantity ordered and sales growth. Inventory system focuses on planning and scheduling which also able to determine cost, calculate and track inventory. Hence, having a reliable inventory system with applications of operations practices is a powerful tool in attaining competitive edge and having an inventory system is an important control because it offers the business an up-to-date perpetual inventory of most inventory items [35]. On the other hand, the relationship is significant between inventory system and inventory cost reduction if the inventory system used by Robina Fresh Meats is outdated particularly on inventory levels, then less chance to have an accurate forecast which might result to having large inventory and might cause too much cost if unsold. Role of an inventory system is to monitor and keep inventory costs such as holding, ordering and shortage at a minimum level. Inventory system also determine what stock levels should be kept, when these stocks have to be replenished and the size of the orders to be placed [10]. Moreover, the significant correlation between inventory system and increase in net profit is where an updated inventory system will be used by the managers to make decisions based on the records to identify and implement new strategies in order to maximize and achieve net profit. Thus, the main objective of using inventory system is to maximize profit in a way of tracking orders, sales and stock levels in the system. Hence, the optimal policy for inventory system is acquired through balancing properly the ordering cost, carrying cost and gross profit [36].

Based on the preceding findings, the researchers concluded the following:

1. The inventory control practices of Robina Fresh Meats in terms of "Inventory Count and Label Accuracy" was very effective while "Ordering and Stock Level Determination", "Spoilage Control" and "Inventory System" were effective.
2. The respondents' assessment on Robina Fresh Meats' financial performance very satisfactory.
3. Based on the respondents' assessment on the relationship between inventory control practices and financial performance of Robina Fresh Meats, ordering and stock level determination has significant relationship with sales growth, while inventory control and label accuracy, and inventory system have both significant relationship with sales growth, inventory cost reduction and increase in net profit.

The researchers made the following recommendations:

1. Robina Fresh Meats may keep a balanced stock levels in outlet storage to avoid overstocking and do re-forecast for an additional order if needed until African Swine Fever (ASF) scare is gone and went back to normal behaviour of consumers. They may also keep high-demand items in igloo for blast freezing and pull-out once ASF scare get through.
2. The researcher recommend that Robina Fresh Meats should align temperature of trucks from -2° Celsius to outlet storage of -12° Celsius particularly on transferring of stocks from another outlet to avoid deterioration of meats.
3. Robina Fresh Meats management should discuss and negotiate with the consignee regarding the policy for the process of in point-of-sale (POS) for faster transaction or uploading of data to the inventory system.
4. a. The management should continue to explore different roles of the existing inventory system such as inventory movement and meat costing to maximize its functions and usage.
b. The management may opt to consider the auto-stocking like quick response (QR) coding to avoid human errors. For every production of meats, there should be a sticker on each meat cuts with a QR code that consists of production date, item description, item code, quantity and customer and if about to deliver to the designated outlets, it will just scanned to the qr scanner and data will be automatically included and processed in the inventory system.
5. The management may also opt to consider to re-align with the inventory system of Rustan's Supermarket which they called Wisemeat as meat solutions system:

- a. To improve the management of carcass and retail cuts with an easy-to-use application designed for weighing products, recording data real-time and complying with standards set through embedded system controls.
 - b. To improve the inventory cost reduction through minimizing transformation losses because the system, coupled with manpower efficiencies, will then positively impact financial results as transformation losses would be minimized, if not eliminated. And also, drip losses and cutting losses will also be accounted for and recorded real-time.
6. The store managers should emphasize strict compliance with the company's inventory control practices. Appropriate punishment of one (1) day suspension should be given to lawbreakers.
 7. Continuous training such as meat cutting and inventory control that will improve the employees' learning and experience should be conducted by the management.
 8. To future researchers, they are encouraged to go further study relating inventory control practices of Universal Robina Corporation in a bigger division of commodity group such as snacks and beverages.

REFERENCES

1. Waters, D. (2017). *Inventory Management*. USA: John Wiley & Sons Inc.
2. Muckstadt, J. A., & Sapra, A. (2010). *Inventories Are Everywhere: In Principles of Inventory Management*. New York, USA: Springer.
3. Muller, M. (2011). *Essentials of Inventory Management*. USA: HarperCollins Leadership.
4. Singh, D., & Verma, A. (2018). Inventory Management in Supply Chain, *Proceedings*, 5(2) 3867-3872. doi:10.1016/j.matpr.2017.11.641
5. Nemtajela, N., & Mbohwa, C. (2017). Relationship between Inventory Management and Uncertain Demand for Fast Moving Consumer Goods Organisations, *Procedia Manufacturing*, Vol. 8, 699-706. doi:10.1016/j.promfg.2017.02.090
6. Minner, S. & Transchel, S. (2010). Periodic review inventory-control for perishable products under service-level constraints, *Springer*, 32(4), 979-996. doi:10.1007/s00291.010.0196.1
7. Protopappa-Sieke, M., & Seifert, R. W. (2010). Interrelating operational and financial performance measurements in inventory control, *European Journal of Operational Research*, 204(3), 439-448. doi:10.1016/j.ejor.2009.11.001
8. Prempeh, Kwadwo. (2015). The impact of efficient inventory management on profitability: evidence from selected manufacturing firms in Ghana. doi: 10.13140/RG.2.1.1500.6168.
9. Hofer, C., Eroglu, C., & Hofer, A. (2012). The effect of lean production on financial performance: The mediating role of inventory leanness, *International Journal of Production Economics*, 138(2), 242-253. doi: 10.1016/j.ijpe.2012.03.02.
10. Sarkar, B., Chaudhuri, K., & Moon, I. (2015). Manufacturing setup cost reduction and quality improvement for the distribution free continuous-review inventory model with a service level constraint. *Journal of Manufacturing Systems*, 34(C), 74-82. <https://doi.org/10.1016/j.jmsy.2014.11.003>
11. Avinadav, T., Herbon, A., & Spiegel, U. (2013). Optimal inventory policy for a perishable item with demand function sensitive to price and time, *International Journal of Production Economics*, 144(2), 497-506. doi: 10.1016/j.ijpe.2013.03.022
12. Banerjee, S., & Agrawal, S. (2017). Inventory model for deteriorating items with freshness and price dependent demand: Optimal discounting and ordering policies, *Applied Mathematical Modelling*, Vol. 52, 53-64. doi:10.1016/j.apm.2017.07.020.
13. Kouki, C., Jemai, Z., & Minner, S. (2015). A lost sales (r, Q) inventory control model for perishables with fixed lifetime and lead time, *International Journal of Production Economics*, Vol. 168, 143-157. doi:10.1016/j.ijpe.2015.06.010.

14. Sharma, F. C. (2016). *Financial Management (Latest Edition)*. USA: SBPD Publications.
15. Chang, C.-T., Teng, J.-T., & Goyal, S. K. (2010). Optimal replenishment policies for non-instantaneous deteriorating items with stock-dependent demand, *International Journal of Production Economics*, 123(1), 62-68. doi:10.1016/j.ijpe.2009.06.042.
16. Pando, V., San-José, L. A., García-Laguna, J., & Sicilia, J. (2018). Optimal lot-size policy for deteriorating items with stock-dependent demand considering profit maximization, *Computers & Industrial Engineering*, Vol. 117, 81-93. doi:10.1016/j.cie.2018.01.008.
17. Wu, J., Chang, C.-T., Cheng, M.-C., Teng, J.-T., & Al-khateeb F. (2015). Inventory management for fresh produce when the time-varying demand depends on product freshness, stock level and expiration date, *International Journal of Systems Science: Operations & Logistics*, 3(3), 138-147. doi:10.1080/23302674.2015.1068880.
18. Chen, C.-Y., Lee W.-I., Kuo H.-M., Chen, C.-W., & Chen, K.-H. (2010). The study of a forecasting sales model for fresh food, *Expert Systems with Applications*, 37(12), 7696-7702. doi:10.1016/j.eswa.2010.04.072.
19. Teunter, R., & Duncan, L. (2009). Forecasting intermittent demand: a comparative study, *Journal of the Operational Research Society*, 60(3), 321-329. doi:10.1057/palgrave.jors.2602569.
20. Mostard, J., Teunter, R., & de Koster, R. (2011). Forecasting demand for single period products: A case study in the apparel industry, *European Journal of Operational Research*, 211(1), 139-147. doi: 10.1016/j.ejor.2010.11.001.
21. Janssen, L., Claus, T., & Sauer, J. (2016). Literature review of deteriorating inventory models by key topics from 2012 to 2015, *International Journal of Production Economics*, Vol. 182, 86-112. doi:10.1016/j.ijpe.2016.08.019.
22. Addis, M. (2015). Major Causes of Meat Spoilage and Preservation Techniques: A Review, *Food Science and Quality Management*. Vol. 41, 106-110.
23. Dave, D. & Ghaly, A.E. (2011). Meat Spoilage Mechanisms and Preservation Techniques: A Critical Review, *American Journal of Agricultural and Biological Sciences*, 6(4),486-510.
24. Sperber, W. (2009). Introduction to the Microbiological Spoilage of Foods and Beverages, *Springer*, 1-40. doi:10.1007/978.1.4419.0826.1.13.
25. Chaillou, S., Chaulot-Talmon, A., & Caekebeke, H. (2014). Origin and ecological selection of core and food-specific bacterial communities associated with meat and seafood spoilage, *The ISME Journal*, 9(5), 1105-1118.
26. Ryan, J. (2017). Introduction to transporter container sanitation, traceability, and temperature controls, *Research Gate*, 1-26. doi:10.1016/b978.0.12.407775.1.
27. Heintz, J., & Parry, R. (2013). *College Accounting (21stth Edition)*. USA: Cengage Learning.
28. Thiel, D., Hovelaque, V. & Le Hoa, V. (2010). Impact of inventory inaccuracy on service-level quality in (Q, R) continuous-review lost-sales inventory models, *International Journal of Production Economics*, 123(2), 301-311. doi:10.1016/j.ijpe.2009.08.031.
29. Sahin, E., & Dallery, Y. (2009). Assessing the impact of inventory inaccuracies within a Newsvendor framework, *European Journal of Operational Research*, 197(3) 1108-1118. doi:10.1016/j.ejor.2008.03.042.
30. Atali, A., Lee, H., & Ozer, O. (2009). If the Inventory Manager Knew: Value of Visibility and RFID under Imperfect Inventory Information, *SSRN Electronic Journal*, 1-35. doi:10.2139/ssrn.1351606.
31. Tundura, L., & Wanyoike, D. (2016). Effect of Inventory Control Strategies on inventory Record Accuracy in Kenya Power Company, Nakuru, *Journal of Investment and Management*, 5(5), 82-92. doi:10.11648/j.jim.20160505.16.

32. Antczak, Tomasz & Weron, Rafal (2019). Point of sale (POS) data from a supermarket: transactions and cashier operations, *Data*, 4(2), 67. doi:10.3390/data4020067.
33. Taha, Hamday A. (2011). *Operations Research: An Introduction (9th Edition)*, Michigan, Prentice Hall.
34. Pando, V., Garcí'a-Laguna, J., San-José, L. A., & Sicilia, J. (2012). Maximizing profits in an inventory model with both demand rate and holding cost per unit time dependent on the stock level, *Computers & Industrial Engineering*, 62(2), 599-608. doi:10.1016/j.cie.2011.11.009.
35. Hardgrave, B., Aloysius, J., & Sandeep, G. (2009). Does RFID improve inventory accuracy, *International Journal of RF Technologies*, 1(1), 44-56. doi:10.1080/17545730802338333.
36. Bakker, M., Riezebos, J., & Teunter, R. (2012). Review of inventory systems with deterioration since 2001, *European Journal of Operational Research*, 221(2), 275-284. doi:10.1016/j.ejor.2012.03.004.
37. Michaelraj, A., & Shahabydeen, P. (2009). Replenishment policies for sustainable business development in a continuous credit based vendor managed inventory distribution system, *Computers & Industrial Engineering*, 56(1), 260-266. doi:10.1016/j.cie.2008.05.014.