Assessing the Inventory Management Practices of Milktea Shops in Nueva Vizcaya

Abando, Aedine Joy I., Agnahe, Strawberry Winona T., Sarinia, Crystel Kaye G., Testado, Ady F., Timmangao Jr. Barris T., Soriano, John Lindy R

Bachelor of Science in Accountancy and Bachelor of Science in Management Accounting, Faculty of the School of Accountancy and Business, Saint Mary's University Bayombong, Nueva Vizcaya

DOI: https://dx.doi.org/10.47772/IJRISS.2024.8110226

Received: 14 November 2024; Accepted: 18 November 2024; Published: 20 December 2024

ABSTRACT

A successful firm in the food and beverage sector must have an efficient inventory management system in place in order to be profitable. It is of critical importance in maintaining the availability of goods, reducing costs, and maximizing the level of pleasure experienced by customers. In recent years, milktea businesses have seen tremendous popularity growth, notably in a number of communities located within the province of Nueva Vizcaya. This study aimed to determine the inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya, namely Solano and Bayombong where most of the registered opened milktea shops are located, for the second semester S.Y. 2024 - 2025. Descriptive-quantitative research design was used to determine the profile variables of the milktea shops owners or managers in their level of inventory management practices in selected municipalities of Nueva Vizcaya in terms of ordering, receiving, storing, delivery, packaging and spoilage., The owners/managers of milktea shop businesses in selected municipalities of Nueva Vizcaya were assessed in terms of their inventory management practices because they have direct control and direct supervision over their inventory. A survey questionnaire was used to get information from a total of 16 selected respondents who are the managers or owners of the milktea shops. The study revealed that milktea shops in Nueva Vizcaya exhibit strong inventory management practices across various dimensions, ensuring product quality and operational efficiency. These practices are consistent across different business profiles, highlighting a standardized approach within the industry.

Keywords: delivery, ordering, packaging, receiving, storing, spoilage

INTRODUCTION

A successful firm in the food and beverage sector must have an efficient inventory management system in place in order to be profitable. An inventory management system is of critical importance in maintaining the availability of goods, reducing costs, and maximizing the level of pleasure experienced by customers.

In recent years, milktea businesses have seen tremendous popularity growth, notably in a number of communities located within the province of Nueva Vizcaya (Gonzalez, 2020). These businesses are known for providing a wide selection of milktea-based beverages; as a result, they have a sizable customer following and are beneficial to the economy of the surrounding area. But like other business, milktea businesses need to develop effective techniques for inventory management in order to maintain their operations and satisfy the expectations of their customers (Smith et al., 2018).

According to the study of Lambert and Cooper (2018), the term "inventory" refers to the stock of commodities and materials that are held by an organization for the purpose of manufacturing, distribution, or sale. In the context of establishments that specialize in the preparation and sale of beverages made with milktea, an inventory largely comprises the various components, such as ingredients and packaging materials, that are necessary for the production and distribution of milktea-based drinks. The effective administration of these inventories is essential if optimal stock levels are to be maintained, waste is to be reduced, and constant quality, as well as customer satisfaction, are to be achieved and maintained.

The importance of efficient inventory management cannot be overstated for businesses like milk and tea shops. The financial success of the company, the operational efficiency of the company, and the customer service that the company provides are all directly impacted by effective inventory management methods. First, according to Li et al. (2019), effective inventory management may assist in cost control by decreasing storage costs, limiting the risk of obsolescence, and avoiding excessive stock levels from being maintained. Second, it enables companies to swiftly answer the requests of customers, guaranteeing that popular beverages are readily accessible, hence increasing customer satisfaction and loyalty (Nguyen et al., 2018). Third, it reduces the cost of delivering beverages to customers. In conclusion, efficient inventory management helps to streamline operational activities such as ordering, receiving, storing, delivery, packing, and limiting spoiling (Sharma & Kumar, 2020). This is one of the many benefits of successful inventory management.

In this context, it is vital to conduct an inventory management practices analysis of milktea businesses located in a selection of municipalities within Nueva Vizcaya in order to get insights into the present strategies and find areas for development. It is feasible to make recommendations for improving the effectiveness of inventory management by first analyzing the ordering, receiving, storing, delivery, packing, and spoiling prevention methods of these businesses. This will allow the ideas to be tailored to the specific needs of the business. By gaining an understanding of the ordering procedures used by milktea shops, one may gain important insight into the processes by which these businesses establish the quantity and timing of ingredient purchases. This evaluation may entail an investigation of the techniques applied in the process of demand forecasting (Wu et al., 2020). Some of these techniques include the examination of previous sales data, trend analysis, and feedback from customers. In addition, assessing the connections with suppliers and the communication mechanisms that are in place with them can offer information on how well the ordering process is being carried out (Wang et al., 2021).

Importance of Inventory Management

According to Amsler (2021), effective inventory management is important because it enables companies to balance the amount of inventory coming in and going. The more effectively a company manages its inventory, the more money it may save on operating costs. Overstock occurs when a company has too much inventory. Businesses with excess inventory have money locked up in inventory, which restricts cash flow and may result in a budget deficit. Dead stock, or overstocked merchandise that cannot be sold, can frequently sit in storage and reduce a company's profit margin. However, a lack of inventory might hurt a company's ability to provide good customer service. A company may lose sales if its inventory is low. A lack of product availability and frequent backorders can drive customers away from a business and towards its competitors.

Priniotakis and Argyropoulos (2018) further said that inventory management is the process of monitoring and controlling inventory level and ensuring adequate replenishment in order to meet customer demand. Determining the appropriate inventory level is crucial since inventory ties up money and affects performance. To reiterate, having too much inventory reduces the working capital and impacts the company’s liquidity. On the contrary, having too little inventory leads to stock outs and missed sales which leads to less profit.

It becomes clear that management attention should be focused on keeping inventory level somewhere in between, striving for increased customer satisfaction and minimum stock outs while keeping inventory costs as low as possible.

Ordering

It is also of paramount importance to determine when and to whom milktea shops order raw materials. By doing so, milktea shops may reduce the risk of shortage and stock outs of raw materials as this has direct effect on customer satisfaction. What milktea shops can do is conduct proactive inventory management to avoid stock outs which can negatively impact customer satisfaction and sales (Sharma & Kumar, 2020). Moreover, evaluating the ordering practices of milktea shops include looking into the capabilities of chosen suppliers and how often do the owners communicate with the suppliers. It is also possible to see if lead time in ordering is done and whether seasonality of products is considered.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

Receiving

The procedure of receiving things is extremely important for guaranteeing that the inventory is correct and of high quality. According to Jiang et al.'s research (2019), evaluating the methods and protocols that are currently in place for inspecting and confirming acquired items will assist uncover any possible concerns or bottlenecks. Additionally, according to Liao et al. (2022), it is essential to evaluate the correctness of quantity checks, the inspection of perishable materials, as well as the documentation and registration of products that have been received.

Storing

It is also crucial to have an efficient method of storing inventory in order to keep product quality consistent and reduce waste (Li & Chen, 2018). Evaluating the storage techniques of milktea stores requires taking into consideration a number of different aspects, including inventory organization, stock rotation methods, and the appropriate usage of storage space. As part of this evaluation, it is possible to investigate the methods used to preserve perishable ingredients, the storage systems or technologies that are utilized, and the degree to which cleanliness and safety regulations are adhered to (Wang et al., 2020).

Delivery

The method of delivery is another essential component of the inventory management system in milktea businesses because of the direct influence it has on the level of customer satisfaction. According to Chen et al. (2018), doing an analysis of the efficacy of inventory management methods can give insights into the efficiency of delivery processes. These processes include the amount of time spent preparing beverages, the accuracy of orders, and the delivery speed. This evaluation could also entail taking into account the utilization of delivery systems such as third-party delivery services and the capacity to deal with times of peak demand (Cheng et al., 2021).

Packaging

The packaging of milktea-based beverages is likewise an extremely important factor in both the maintenance of their quality and the presentation of their appearance (Li et al., 2021). One of the ways to evaluate the packaging practices of milktea shops is to look at the ability to modify the packaging for various goods, as well as the selection of acceptable materials for the packaging and the efficiency of the packaging operations. According to Lin et al. (2019), this evaluation may also take into account the sustainability of the packaging and its influence on how customers see the company's environmental responsibilities.

Spoilage

It is essential for milktea cafes to reduce the amount of spoiling they experience in order to guarantee the freshness and quality of their goods. Liu et al. (2020) says that reviewing practices like stock rotation techniques, inventory monitoring systems, and portion control procedures is part of the process of evaluating the strategies that are currently in place for the avoidance of spoiling. Furthermore, Chen et al. (2020) stated that this evaluation may also involve analyzing the usage of technology or software solutions for inventory tracking and management of expiration dates.

Evaluating the practices of inventory management used by milk-and-tea businesses in a few of the towns that make up Nueva Vizcaya is essential for comprehending the tactics that are now in use and locating the areas in which they might be enhanced. The financial profitability of milk and tea store enterprises, the operational efficiency of those operations, and the level of happiness experienced by their customers are all directly impacted by the effectiveness of their inventory management. In order to improve the effectiveness of inventory management, it is possible to get significant insights by investigating the practices of ordering, receiving, storing, delivery, and packing, as well as by preventing spoiling. It is possible that if milktea businesses in some towns of Nueva Vizcaya modified these procedures, it would lead to a decrease in costs, a rise in client happiness, and an improvement in the overall performance of the firm.

This research is significant because it will aid students, especially those in the Accountancy and Management Accounting courses, in better comprehending what inventory management is. This will give them inspiration for creating an inventory plan that will be successful and efficient, similar to the one that the chosen milk tea shops used. As a result of this study, they will be able to apply what they learn in their daily activities and the professional world. In addition to that, this will also be important to the customers as it will inform them about the operations of milk tea stores, which will help them make better purchasing decisions. The customers' awareness of and knowledgeable about the inventory management practices utilized by a certain milk tea establishment affects the shop's choice of retailer. Hence, milktea shops need to have efficient inventory management practices that would encourage customers to be return clients.

Furthermore, this study is also significant to the owners/managers of milktea shop businesses because, by participating in this study, these businesses can gain valuable information on how to efficiently handle their inventories. Also, owners/managers can acquire effective new strategies and techniques to enhance the day-to-day operations of the business on inventory management practices, such as ordering, receiving, storing, delivery, packaging, and spoilage, in order to meet the customer demand, prevent stock outs, overstocking, and to make wise financial decisions. And lastly, this study will be useful to the future researchers as a starting point for more research on milk tea business inventory management. They can also use this study as a resource and a guide when doing their own research. The ideas that have been generated can also be used as a basis for doing new research or evaluating the accuracy of earlier discoveries in the field.

The researchers chose to study the inventory management practices of milktea shops because it is an emerging industry, highly demanded by consumers around the locale. As it is new, the researchers would like to know if the chosen respondents have effective inventory management practices in place, and if not, the researchers could recommend based on the results of the study.

This study is in line with the Sustainable Development Goals (SDG) of ensuring sustainable consumption and production patterns as it seeks to reduce waste by implementing appropriate inventory management practices such as taking into account the products' seasonality to prevent excess inventory, keeping the receiving area clean and free of insect infestation, and storing raw materials properly to maintain the quality and shelf life while taking into account the temperature or light requirements. Overall, these practices would reduce overproduction of materials while maintaining it at an optimal level.

Statement of the Problem

This study aimed to determine the inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya for the second semester S.Y. 2024-2025. Specifically, it aimed to answer the following questions: What is the profile of the milktea shops in terms of types of business ownership; number of years in the business; and educational attainment of the owners or managers? What is the level of inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya in terms of ordering; receiving; storing; delivery; packaging; and spoilage? Is there a significant difference in the level of inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya when the respondents are grouped according to their profile variables?

Statement of the Null Hypothesis

There is no significant difference in the level of inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya when the respondents are grouped according to their profile variables.

METHODOLOGY

Research Design

The quantitative- descriptive-comparative research design was used to determine the profile variables of the milktea shops owners or managers in their level of inventory management practices in selected municipalities of Nueva Vizcaya in terms of ordering, receiving, storing, delivery, packaging and spoilage. For the statement of problem number three, which determines the existence of significant difference in the level of inventory

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

management practices of milktea shops in selected municipalities of Nueva Vizcaya when the respondents are grouped by profile variables, the research design used was the comparative research design.

Descriptive research design presents the facts or correct situation regarding the nature of a number of objects or a group of people, and may involve the processes of induction, analysis, classification, enumeration, and measurement. The researchers used this type of research methodology in order to interpret the theoretical significance and meaning of the findings and to help build ideas for more investigation.

Additionally, this research follows a survey approach which uses a research instrument in which information gathered from a sample of people by use of questionnaire and a method of data collection based on communication with a respective sample of individuals. The researchers used this type of research to statistically analyze the data collected from surveys to draw meaningful research conclusions.

Research Environment

The study was conducted in the selected municipalities of Nueva Vizcaya, namely Solano which is the commercial center of the province and Bayombong which is also the capital of the province.

According to the data gathered by the Department of Trade and Industry, the total population of milktea shops in Bayombong and Solano is fifty-eight (58) and sixty-four (64), respectively. These milktea shops are typically found close to public markets and schools.

Research Respondents

The respondents are the milktea shop businesses in selected municipalities of Nueva Vizcaya who were assessed in terms of their inventory management practices because they have direct control and direct supervision over their inventory. These respondents were categorized in accordance with their profile variables, such as their type of business ownership, number of years in the business, and educational attainment.

The purposive sampling technique was utilized to create a sample that reflects the entire population of milktea shop owners in selected municipalities of Nueva Vizcaya because a particular group will be examined. The criteria to be qualified for this sampling are: they should be the owners or managers of at least one year and above of operations in milktea shops in the in the selected municipalities of Nueva Vizcaya, and the milktea shops should be a family owned business.

In relation with the data given by the Department of Trade and Industry, there were eleven (11) and nine (9) family owned milktea shops in Bayombong and Solano, respectively. However, out of these twenty (20) family owned milktea shops, only sixteen (16) responded, eight (8) from Bayombong and eight (8) from Solano.

Research Instrument

A survey questionnaire was used to get information from the selected respondents who are the managers or owners of the milktea shops. Part one of the survey questionnaires was the personal profile of the respondents. There are two sub-parts; first is the respondent's profile which includes sex, age and educational attainment and the second is the business profile, which includes name of the business (optional), type of business ownership, number of years in the business and the business address. Moreover, part two of the survey questionnaire is the level of inventory management practices in terms of ordering, receiving, storing, delivery, packaging and spoilage.

The concepts and guidelines used in the questionnaire were adapted and modified from the study of Agustin et al. (2014) entitled "The Inventory Management Practices of Fruits Stand Business of Selected Municipalities of Nueva Vizcaya."

The questionnaire was subjected to a validity review by the research adviser and research panelists.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

Data Gathering Procedure

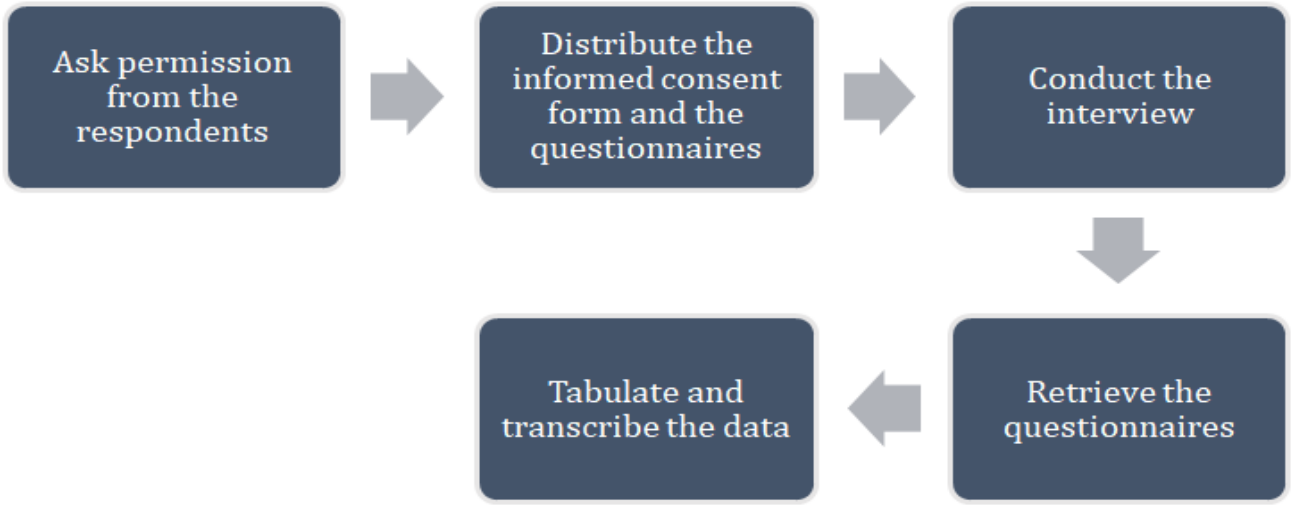


Figure 1: Data gathering procedure

The researchers sought the consent of the respondents to participate in the research before the survey was actually administered. The researchers provided a copy of the informed consent form which the respondents accomplished and then the questionnaires. After retrieval of the survey questionnaires, the researchers proceeded immediately with the interview questions to gather more information to complement the data gathered. The time allotted for data gathering was about 10 to 15 minutes. Moreover, the quantitative data obtained from the respondents was tabulated and the qualitative data from the interview was transcribed.

Treatment of Data

The statistical treatments used to elicit and classify the profile variables of the respondents were frequency counts and percentage distribution. Mean and standard deviation scale were the basis for evaluating the level of inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya on inventory management practices. Furthermore, to test the significant difference on the level of practices of the milktea shop businesses in Bayombong and Solano, Nueva Vizcaya when grouped according to their profile variables, Kruskal- Wallis Test was used for years in the business and Mann-Whitney U test for educational attainment.

RESULTS AND DISCUSSIONS

Section 1. Profile of the Milktea Shops in Selected Municipalities of Nueva Vizcaya

Table 1: Profile of the Milktea Shops

Variables	**Groups**	**f (n=16)**	**%**
Types of business ownership	Sole Proprietorship	15	93.8
	Partnership	0	0.0
	Corporation	1	6.3
Number of years in the business	0-1 year	5	31.3
	2-3 years	6	37.5
	4-5 years	5	31.3

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

Educational attainment of the owners or managers	Postgraduate	0	0.0
	College Graduate	10	62.5
	College Under-graduate	6	37.5
	High School Graduate	0	0.0
	High school Under-graduate	0	0.0

Table 1 presents the profile of the milktea shops, providing insights into the types of business ownership, the number of years they have been in business, and the educational attainment of the owners or managers. The majority of the milktea shops, as shown in the table, are operated under sole proprietorship, with 93.8% (n=15) of the respondents identifying their business ownership as such. This high prevalence of sole proprietorship is consistent with findings in small business research, where sole proprietorship is often the preferred business structure due to its simplicity, ease of establishment, and direct control by the owner (Gibbons, 2020). Sole proprietorships allow for more agile decision-making, which can be crucial in a competitive market like the food and beverage industry. The remaining 6.3% (n=1) are structured as a corporation, highlighting the minimal presence of larger, possibly more bureaucratic business structures within this sample.

The data on the number of years in business reveals a relatively young industry in the area, with the majority of businesses (37.5%, n=6) operating for 2-3 years. Both the 0-1 year and 4-5 years' categories are equally represented at 31.3% (n=5) each. This distribution suggests that while some businesses are newly established, there is a significant proportion that has managed to survive past the critical initial years. According to Delmar and Shane (2004), the first few years are often the most challenging for new businesses due to high failure rates. The fact that a substantial number of these milktea shops have been operating for over two years indicates a level of stability and market acceptance.

Regarding educational attainment, the majority of owners or managers are college graduates, accounting for 62.5% (n=10) of the respondents. This level of education is typically associated with better business management skills, including strategic planning and financial management, which are crucial for running successful operations (Bryan, 2019). Additionally, 37.5% (n=6) have some college education but did not complete their degree. The absence of postgraduate qualifications among the respondents suggests that advanced academic training beyond a bachelor's degree is not a common feature among the business owners or managers in this sector. This might be reflective of the industry's entry requirements, which do not necessarily demand high levels of formal education but rather practical skills and business understanding.

Section 2. Level of Inventory Management Practices of Milktea Shops in Selected Municipalities of Nueva Vizcaya

Table 2: Level of Inventory Management Practices of Milktea Shops – Ordering

Statements	**Mean**	**SD**	**QD**
	Ordering		
Lead time in ordering is done to avoid shortage and stock out.	3.75	0.58	Highly practiced
The profile of suppliers is being viewed to determine if they are capable of making in time delivery.	3.88	0.34	Highly practiced
Number of orders are being reviewed thoroughly and planned carefully, considering seasonality and past sales.	3.75	0.45	Highly practiced

There is constant communication and coordination between the owner and its suppliers of raw materials.	3.81	0.4	Highly practiced
Overall Mean	**3.8**	**0.28**	**Highly practiced**

Table 2 focuses on the ordering practices of milktea shops, providing detailed insights into how these establishments manage their inventory to ensure the availability of raw materials. The mean scores for each statement indicate a high level of practice in various aspects of ordering.

The statement "Lead time in ordering is done to avoid shortage and stock out" has a mean of 3.75 and a standard deviation of 0.58, suggesting that milktea shops consistently plan their orders to prevent stock shortages. This practice is crucial as it helps businesses maintain an uninterrupted supply of products, thus ensuring customer satisfaction and preventing lost sales. Effective lead time management is a cornerstone of inventory control, as highlighted by Li et al. (2019), who emphasize its role in minimizing the risk of stock outs and maintaining operational efficiency. Respondents F and G, on the other hand, highlight recurring issues such as "products being out of stock for a very long time" and “forgetting to make inventory of all the stocks needed." These lapses can lead to operational disruptions and customer dissatisfaction. Sharma and Kumar (2020) emphasize the importance of regular and thorough inventory checks to ensure continuous product availability and avoid stock outs.

"The profile of suppliers is being viewed to determine if they are capable of making in time delivery" has the highest mean score of 3.88 and a standard deviation of 0.34. This high mean score reflects the importance placed on supplier reliability, which is essential for maintaining a steady flow of inventory. Evaluating supplier profiles ensures that businesses partner with reliable suppliers who can meet delivery schedules, thus reducing the risk of delays and ensuring that ingredients are always available when needed. This practice aligns with the findings of Nguyen et al. (2018) who note that supplier assessment is a critical factor in achieving efficient supply chain management.

The thorough review and planning of order quantities, considering seasonality and past sales, scored a mean of 3.75 with a standard deviation of 0.45. This indicates that milktea shops carefully plan their orders to match demand patterns, which helps in managing inventory levels effectively and to ensure that discrepancies are identified and corrected promptly, reducing the likelihood of errors persisting over time. By considering seasonal variations and historical sales data, businesses can optimize their order quantities, reducing the chances of overstocking or understocking. This strategic approach to inventory management is supported by Wu et al. (2020) who discuss the benefits of demand forecasting and planning in maintaining optimal stock levels. However, according to Respondent B, the problem of changing demand because customer’s demand is constantly shifting underscores the dynamic nature of consumer preferences, which can complicate inventory planning. Moreover, Lambert and Cooper (2018) note that flexible inventory management systems that can adapt to changing demand patterns are critical for maintaining adequate stock levels and meeting customer expectations. Seasonal demand fluctuations also require businesses to adjust their inventory levels accordingly, as supported by Chopra and Meindl (2016), who discuss the importance of adjusting inventory practices to account for seasonal demand variations.

Lastly, the statement, “There is constant communication and coordination between the owner and its suppliers of raw materials," has a mean of 3.81 and a standard deviation of 0.40. This suggests that ongoing communication with suppliers is a common practice, which is vital for resolving issues promptly and ensuring that orders are fulfilled accurately and on time. Effective communication with suppliers helps build strong relationships, facilitating better negotiation and cooperation, as noted by Wang et al. (2021).

The overall mean score for ordering practices is 3.80 with a standard deviation of 0.28, indicating that these practices are highly implemented across the surveyed milktea shops. This indicates that milktea shops exhibit efficient ordering practices, with a strong emphasis on maintaining lead times to avoid shortages, reviewing supplier profiles for timely deliveries, and thoroughly planning order quantities based on seasonality and past sales. These practices are critical in ensuring that shops have sufficient stock to meet customer demand while

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

avoiding overstocking, which can tie up capital and increase storage costs.

Table 3: Level of Inventory Management Practices of Milktea Shops - Receiving

Statements	**Mean**	**SD**	**QD**
	Receiving		
Ensuring that the number of orders is matched with the requirement in the purchase orders.	4.00	0.00	Highly practiced
The receiving area is maintained tidy and free of insect infestation.	3.69	0.48	Highly practiced
Products that don't meet quality standards are discarded after a quality inspection is completed.	3.88	0.34	Highly practiced
Unauthorized individuals should not enter the receiving area.	3.81	0.40	Highly practiced
The weight of every item is being verified.	3.69	0.48	Highly practiced
Received raw materials are recorded and dated.	3.81	0.40	Highly practiced
Overall Mean	**3.81**	**0.20**	**Highly practiced**

Table 3 outlines the receiving practices of milktea shops, highlighting the meticulous steps taken to ensure the quality and integrity of their raw materials. Each statement within this table reflects a commitment to maintaining high standards in the receiving process, which is crucial for effective inventory management.

The statements, "Ensuring that the number of orders is matched with the requirement in the purchase orders," and "Received raw materials are recorded and dated," scored a mean of 4.00 and 3.81 with a standard deviation of 0.00 and 0.40, respectively. Proper documentation of received materials is essential for tracking inventory and ensuring traceability. Recording and dating materials help in managing shelf life and rotating stock to use older materials first, thereby reducing waste. Another strategy mentioned by Respondent I is the use of inventory management software that utilizes barcode scanning to track items in order to move through the warehouse and inventory. This technology-driven approach reduces the chances of human error and enhances accuracy through automated tracking and data entry. According to Goyal and Gunasekaran (1995), the implementation of inventory management software can streamline operations and improve the accuracy of inventory records by automating data collection and analysis.

This practice is in line with the findings of Liu et al. (2020) who underscore the significance of accurate record-keeping in effective inventory management. In addition, Li and Chen (2018) also discuss how excess inventory not only ties up capital but also increases the risk of inventory becoming obsolete or spoiled, particularly in the food and beverage industry.

The statement, "The receiving area is maintained tidy and free of insect infestation," has a mean score of 3.69 and a standard deviation of 0.48, indicating that cleanliness and hygiene are highly practiced within these businesses. Keeping the receiving area tidy and free from pests is essential for preventing contamination of raw materials, which can directly impact the quality of the final product. This practice aligns with the recommendations of Jiang et al. (2019) who emphasize that a clean receiving area is fundamental for maintaining food safety and quality standards.

Moreover, the statement, "Products that don't meet quality standards are discarded after a quality inspection is completed," scored a mean of 3.88 with a standard deviation of 0.34. This high score demonstrates the importance of stringent quality control measures in the receiving process. By ensuring that only materials

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

meeting the required standards are accepted, businesses can maintain consistent product quality and customer satisfaction. This practice is supported by Liao et al. (2022) who highlight the role of thorough inspections in preventing substandard materials from entering the production process.

Next, "Unauthorized individuals should not enter the receiving area" has a mean of 3.81 and a standard deviation of 0.40. Restricting access to the receiving area helps safeguard the inventory from theft, contamination, and other risks. This measure ensures that only trained personnel handle the raw materials, which is crucial for maintaining control over inventory management. According to research by Wang et al. (2021), controlled access to inventory areas is a key aspect of security and operational efficiency.

Lastly, the statement, "The weight of every item is being verified," also has a mean of 3.69 and a standard deviation of 0.48. Verifying the weight of received items ensures accuracy in inventory records and prevents discrepancies that could lead to stock outs or overstocking. Accurate weighing is critical for inventory control and cost management, as noted by Cheng et al. (2020) who discuss the importance of precise measurements in maintaining inventory accuracy.

The overall mean score for receiving practices is 3.81 with a standard deviation of 0.20, indicating that these practices are highly implemented across the surveyed milktea shops. This shows that receiving practices were also highly rated, with shops maintaining tidy and pest-free receiving areas, conducting quality inspections, and verifying the weight and documentation of received goods. These measures help ensure that only high-quality materials enter the inventory, thereby maintaining the overall quality of the final products.

Table 4: Level of Inventory Management Practices of Milktea Shops - Storing

Statements	Mean	SD	QD
	Storing		
Raw materials are being handles carefully to make them free from being compressed, especially its packaging.	4.00	0.00	Highly practiced
Storage area is maintained clean to avoid pests and the occurrence of contamination.	3.94	0.25	Highly practiced
The storage areas are well-planned and organized.	3.88	0.34	Highly practiced
Rotten stocks are immediately separated.	3.94	0.25	Highly practiced
Quality and condition of stocks of raw materials are regularly checked.	4.00	0.00	Highly practiced
The raw materials are clearly labeled for easy identification.	3.94	0.25	Highly practiced
The raw materials are stored properly to preserve their quality and shelf life, considering the temperature or light requirements.	4.00	0.00	Highly practiced
Overall Mean	**3.96**	**0.09**	**Highly practiced**

Table 4 provides a comprehensive view of the storing practices in milktea shops illustrating the meticulous efforts these establishments put into maintaining their inventory. The high mean scores across all statements indicate a strong adherence to best practices in storage management, which is crucial for ensuring the quality and safety of raw materials.

The statements, "Raw materials are being handled carefully to make them free from being compressed, especially its packaging," and "The raw materials are stored properly to preserve their quality and shelf life,

considering the temperature or light requirements," received perfect scores of 4.00 with no variations. Proper storage conditions are critical for extending the shelf life of raw materials and preventing spoilage. This practice ensures that the materials remain in optimal condition until they are used, which is crucial for maintaining the quality of the final products. Research by Wang et al. (2021) highlights the importance of adhering to specific storage conditions to preserve the quality and extend the shelf life of perishable goods.

"Storage area is maintained clean to avoid pests and the occurrence of contamination" has a mean score of 3.94 and a standard deviation of 0.25, reflecting a high level of practice. This cleanliness is essential to prevent any contamination that could compromise the quality of the raw materials. A clean storage environment is a fundamental aspect of food safety management, as highlighted by Li and Chen (2018) who emphasize that maintaining hygiene in storage areas is critical for preventing pest infestations and ensuring the integrity of food products.

"The storage areas are well-planned and organized" also scored highly, with a mean of 3.88 and a standard deviation of 0.34. Well-organized storage areas facilitate efficient inventory management by making it easier to locate and retrieve items quickly. This organization helps in minimizing errors and improving the overall efficiency of inventory handling. According to the findings of Wu et al. (2020), effective organization of storage spaces is crucial for optimizing operational workflows and enhancing productivity. Moreover, efficient storage and real-time monitoring can prevent many inventory problems by ensuring that stock levels are accurately maintained and discrepancies are quickly identified and addressed. Bowersox et al. (2013) also discuss how advanced storage and monitoring techniques can enhance inventory accuracy and operational efficiency.

The practice of separating rotten stocks immediately scored a mean of 3.94 with a standard deviation of 0.25. Prompt removal of spoiled materials prevents contamination of other stocks and reduces waste. This practice ensures that only fresh and high-quality materials are used in the preparation of products, thereby maintaining high standards of quality. Research by Sharma and Kumar (2020) supports this approach, noting that immediate separation of spoiled goods is vital for maintaining the overall quality of inventory. Subsequently, Respondent B emphasizes the importance of detailed corrective actions such as dispose, return or repair damaged items to avoid dead stocks. This comprehensive approach not only addresses immediate errors but also prevents future issues by ensuring that inventory records are updated and damaged goods are appropriately managed. This aligns with the findings of Priniotakis and Argyropoulos (2018) who suggest that a systematic approach to correcting errors can significantly improve inventory accuracy and reduce waste.

"Quality and condition of stocks of raw materials are regularly checked" received a perfect score, with a mean of 4.00 and no variation (SD = 0). Regular quality checks are integral to ensure that the materials meet the required standards before use. It is also essential for managing inventory levels and ensuring that stock data reflects actual conditions, as highlighted by Axsäter (2015). Consistent monitoring helps in identifying any potential issues early, allowing for timely corrective actions. This practice is crucial for maintaining product quality and customer satisfaction, as emphasized by Amsler (2021) who discusses the importance of regular inspections in inventory management. Also, Bowersox et al. (2013) emphasizes that a systematic investigation of inventory errors can help in identifying underlying issues and implementing corrective measures to prevent recurrence.

"The raw materials are clearly labeled for easy identification" also scored a mean of 3.94 with a standard deviation of 0.25. Clear labeling is essential for efficient stock management, as it helps in quickly identifying and retrieving the necessary items. Proper labeling reduces the risk of errors and ensures that the oldest stock is used first, adhering to the first-in, first-out (FIFO) principle. According to Liao et al. (2022), clear labeling practices are fundamental for maintaining order and accuracy in inventory management. However, manual documentation, in particular, is prone to human error, as highlighted by Axsäter (2015) who discusses the importance of automated systems in improving accuracy and efficiency in inventory management. Specific issues mentioned by Respondents' C and D such as "cups not properly accounted" and "errors in manual data entry that include incorrect counts, mislabeling of stocks" further emphasize the challenges of manual inventory processes. These errors can lead to discrepancies between actual stock levels and recorded data,

complicating inventory management and leading to potential stock outs or overstocking. According to Priniotakis and Argyropoulos (2018), accurate inventory tracking is crucial for maintaining operational efficiency and reducing waste.

The overall mean score for storing practices is 3.96 with a standard deviation of 0.09, indicating that these practices are highly implemented across the surveyed milktea shops. This connotes that storage practices are efficient, with shops ensuring cleanliness, organization, and proper labeling of storage areas. Regular checks on the quality and condition of stocks, coupled with appropriate storage conditions, help preserve the quality and shelf life of raw materials, reducing waste due to spoilage.

Table 5: Level of Inventory Management Practices of Milktea Shops – Delivery

Statements	Mean	SD	QD
	nDelivery		
It is assured that deliveries are on time.	3.81	0.40	Highly Practiced
Delivery time of the raw materials needed is monitored and recorded.	4.0	0	Highly practiced
Delivered raw materials are carefully transferred to the storage area to prevent damages.	3.94	0.25	Highly practiced
Overall Mean	**3.92**	**0.15**	**Highly practiced**

Table 5 illustrates the delivery practices of milktea shops, focusing on the critical steps taken to ensure that raw materials are delivered and handled appropriately to maintain their integrity and quality. The practices outlined in this table show a high level of adherence, which is essential for effective inventory management.

The statement, “It is assured that deliveries are on time,” scored a mean of 3.81 with standard deviation of 0.40. This indicates that timely deliveries are vital for preventing stock outs and maintaining the smooth operation of business activities. According to Lambert and Cooper (2018), precise tracking of delivery times enhances supply chain efficiency and improves overall business performance by ensuring materials are available for production as scheduled. However, one significant issue mentioned by Respondent A in the interview is the long waiting time in making deliveries because of distance. This geographical challenge impacts the timeliness of replenishing stock, leading to potential shortages. This is consistent with the findings of Koh et al. (2007) who note that long supply chains can result in delays that disrupt inventory levels and affect business operations, and the study of Chopra and Meindl (2016) that revealed that supply chain logistics and the physical distance between supply chain nodes significantly influence inventory management efficiency.

The statement, "Delivery time of the raw materials needed is monitored and recorded," has a perfect mean score of 4.00 with no standard deviation. This indicates that all respondents consistently practice monitoring and recording delivery times. Monitoring delivery times is crucial as it helps in maintaining an accurate schedule for inventory replenishment, ensuring that raw materials are available when needed without delay.

The practice of ensuring that "Delivered raw materials are carefully transferred to the storage area to prevent damages" has a mean score of 3.94 and a standard deviation of 0.25. This high score signifies the importance placed on handling materials with care during the transfer process. Proper handling during delivery prevents damages, ensuring that materials retain their quality and are fit for use. This practice minimizes waste and reduces the costs associated with damaged goods. Research by Li et al. (2019) highlights that careful handling of materials during delivery and transfer is crucial for maintaining product integrity and reducing losses due to damages.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

The overall mean score for delivery practices is 3.92 with a standard deviation of 0.15, indicating that these practices are highly implemented across the surveyed milktea shops. The consistent application of these practices reflects a strong commitment to maintaining the quality and availability of raw materials through efficient delivery processes. Efficient delivery management ensures that the supply chain operates smoothly, supporting the overall efficiency of inventory management. This adherence to best practices in delivery not only helps in maintaining product quality but also enhances customer satisfaction by ensuring that high-quality products are consistently available.

Table 6: Level of Inventory Management Practices of Milktea Shops - Packaging

Statements	Mean	SD	QD
	Packaging		
The final products are being enclosed and perfectly sealed.	4.00	0.00	Highly practiced
Attractive product labels are being used to make the products more appealing.	3.88	0.34	Highly practiced
Brand name and customers order are also included in the packaging.	3.63	0.62	Highly practiced
Overall Mean	**3.83**	**0.3**	**Highly practiced**

Table 6 examines the packaging practices of milktea shops, highlighting the critical steps these businesses take to ensure their products are appealing and protected. Packaging plays a crucial role in both preserving the quality of the product and enhancing its marketability, which is reflected in the high mean scores across the different practices.

The statement, "The final products are being enclosed and perfectly sealed," achieved a perfect mean score of 4.00 with no standard deviation, indicating that all respondents consistently ensure their products are securely sealed. Proper sealing is essential for maintaining the freshness and quality of the products by preventing contamination and spillage. This practice is especially important in the food and beverage industry, where product integrity directly impacts customer satisfaction. Research by Lin et al. (2019) supports the importance of effective sealing, emphasizing that it helps maintain the product's quality during storage and transportation.

The use of "Attractive product labels to make the products more appealing" received a mean score of 3.88 with a standard deviation of 0.34. This high score highlights the emphasis placed on aesthetic appeal in packaging which is a significant factor in attracting customers and enhancing the product's marketability. Attractive labeling not only captures the attention of potential buyers but also conveys important information about the product, such as its ingredients, brand, and usage instructions. According to Huang and Wang (2019), well-designed labels can significantly influence consumer purchasing decisions by enhancing the perceived value of the product.

"Brand name and customers' order in the packaging" has a mean score of 3.63 and a standard deviation of 0.62. While this score is slightly lower than the others, it still indicates a high level of practice. Including the brand name and specific customer orders on the packaging helps in brand recognition and ensures accuracy in fulfilling customer orders. This practice enhances customer satisfaction by ensuring they receive exactly what they ordered, and it also strengthens brand identity. Kiesmuller et al. (2018) highlight that clear and accurate labeling, including brand information, is crucial for building brand loyalty and ensuring customer trust.

The overall mean score for packaging practices is 3.83 with a standard deviation of 0.3, indicating that these practices are highly implemented across the surveyed milktea shops. Effective packaging not only protects the product but also plays a critical role in marketing by making the product more appealing to customers. The

strong adherence to these packaging practices reflects a well-rounded approach to both product preservation and marketability.

Table 7: Level of Inventory Management Practices of Milktea Shops - Spoilage

Statements	Mean	SD	QD
	Spoilage		
Temperature on the storage area is being monitored.	3.63	0.50	Highly practiced
The storage and display areas are well ventilated.	3.81	0.40	Highly practiced
The raw materials as well as the packaging materials are protected or shielded from direct sunlight.	3.94	0.25	Highly practiced
The storage and display area is free from moist.	3.88	0.34	Highly practiced
Overall Mean	**3.86**	**0.12**	**Highly practiced**

Table 7 focuses on the spoilage prevention practices of milktea shops, highlighting the efforts these businesses make to ensure the quality and longevity of their raw materials and final products. The high mean scores in this table indicate a strong commitment to maintaining optimal storage conditions to minimize spoilage.

The statements, " Temperature on the storage area is being monitored" and "The storage and display areas are well ventilated" have 3.63 and 3.81 as the mean scores and 0.50 and 0.40 as the standard deviation, respectively. These high scores suggest that ensuring proper ventilation is a widely practiced standard among these shops. Adequate ventilation is crucial in preventing the buildup of humidity and heat, which can lead to spoilage and degradation of both raw materials and finished products. Proper ventilation helps maintain a stable environment that is less conducive to mold growth and other spoilage mechanisms. According to Liu et al. (2020), maintaining good airflow is essential in food storage areas to keep products fresh and extend their shelf life.

"The storage and display area is free from moist" received a mean score of 3.88 and a standard deviation of 0.34. Ensuring that storage areas are dry and free from moisture is crucial in preventing the growth of mold and bacteria, which can lead to spoilage. Moisture control is a fundamental aspect of food preservation, as excess humidity can compromise packaging integrity and promote microbial contamination. As noted by Liao et al. (2022), controlling moisture levels in storage areas is essential for maintaining the quality and safety of stored food products. Research by Nahmias and Olsen (2015) supports this, highlighting that perishable goods require meticulous inventory control to minimize spoilage and associated costs.

Protecting "the raw materials as well as the packaging materials from direct sunlight" scored the highest mean of 3.94 with a standard deviation of 0.25. This practice is highly adhered to, reflecting the importance of shielding materials from harmful UV rays that can degrade quality and accelerate spoilage. Exposure to direct sunlight can cause temperature fluctuations and photo-degradation, which negatively impact the quality and safety of food products. Research by Wang et al. (2021) highlights the detrimental effects of sunlight on food quality, underscoring the necessity of keeping storage areas shaded and cool.

The overall mean score for spoilage prevention practices is 3.86 with a standard deviation of 0.12, indicating that these practices are highly implemented across the surveyed milktea shops. Effective spoilage prevention ensures that raw materials and final products remain in optimal condition, reducing waste and maximizing shelf life. The consistent application of these practices demonstrates a strong commitment to quality control and operational efficiency in inventory management.

Table 8: Summary of the Level of Inventory Management Practices of Milktea Shops

Level of Inventory Management Practices of Milktea Shops	Mean	Standard Deviation	Qualitative Description
Ordering	3.80	0.28	Highly Practiced
Receiving	3.81	0.20	Highly Practiced
Storing	3.96	0.09	Highly Practiced
Delivery	3.92	0.15	Highly Practiced
Packaging	3.83	0.30	Highly Practiced
Spoilage	3.86	0.12	Highly Practiced

Table 8 shows the summary of the level of inventory management practices of milktea shops in terms of ordering, receiving, storing, delivery, packaging, and spoilage using mean and standard deviation.

The mean scores and standard deviations indicate that the level of inventory management practices of milktea shops is perceived to be highly practiced in all these areas. This exhibits strong inventory management practices across various dimensions, ensuring product quality and operational efficiency.

Section 3. Significant Difference in the Level of Inventory Management Practices of Milktea Shops When Grouped According to their Profile Variables

Table 9: Level of Practice of Inventory Management Practices According to the Type of Business Ownership

Groups	f (n=16)	Mean	SD	QD
Sole Proprietorship	15	3.85	.12	Highly Practiced
Corporation	1	4.00	.00	Highly Practiced

Table 9 provides an analysis of the inventory management practices based on the type of business ownership among milktea shops. The table categorizes the respondents into sole proprietorship and corporation, offering insights into how these ownership structures influence their practices.

The majority of the businesses, 15 out of 16, are sole proprietorships. This group has a mean score of 3.85 with a standard deviation of 0.12, indicating that inventory management practices are highly practiced among these businesses. Sole proprietorships often benefit from streamlined decision-making processes, allowing owners to implement and maintain consistent practices efficiently. The high score suggests that despite the smaller scale and potentially limited resources compared to larger business structures, sole proprietorships manage to uphold high standards in inventory management. This efficiency in practice could be attributed to the personal involvement of the owners, who directly oversee daily operations and can quickly address any issues that arise. According to Gibbons (2020), sole proprietorships tend to have a high level of operational control and flexibility, which can contribute to effective inventory management.

The single corporation in the sample achieved a perfect mean score of 4.00 with no variation (SD = 0), indicating that its inventory management practices are also highly practiced. Corporations typically have more formalized systems and processes in place, which can lead to consistent and high-quality inventory management practices. The absence of variation in the score reflects the standardized procedures likely present in a corporate structure, ensuring that best practices are uniformly applied. This consistency can be attributed

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

to the resources available to corporations, such as advanced inventory management systems and dedicated personnel for overseeing inventory control. According to Kiesmuller et al. (2018), corporations benefit from economies of scale and structured management systems, which can enhance their ability to maintain effective inventory practices.

The comparison between the two groups shows that both sole proprietorships and corporations achieve high levels of inventory management practice. However, the corporation's perfect score highlights the potential advantages of having more structured and resource-rich systems in place. The results suggest that while smaller businesses can achieve high standards through personal oversight and flexibility, larger businesses with formalized procedures can maintain even higher consistency in their practices.

Table 10: Level of Practice of Inventory Management Practices According to the Number of Years in the Business

Groups	f(n=16)	Mean	SD	QD	Mean Rank	H-value	p-value
0-1 year	5	3.82	0.1 4	Highly practiced	7.20	$.720^{ns}$	.698
2-3 years	6	3.87	0.1 0	Highly practiced	8.58		
4-5 years	5	3.89	0.1 3	Highly practiced	9.70		

Table 10 explores the relationship between the number of years milktea shops have been in business and their inventory management practices. The table categorizes the respondents into three groups based on their years in business: 0-1 year, 2-3 years, and 4-5 years. It also includes the mean scores, standard deviations, qualitative descriptions (QD), mean ranks, H-value, and p-value to provide a comprehensive analysis.

The group with 0-1 year in business, consisting of five respondents, has a mean score of 3.82 with a standard deviation of 0.14. This indicates that even the newest businesses highly practice effective inventory management, maintaining high standards despite their relative inexperience. The mean rank for this group is 7.20. According to Delmar and Shane (2004), new businesses often adopt rigorous inventory practices to establish their market presence and avoid early operational challenges.

The group with 2-3 years in business includes six respondents and has a slightly higher mean score of 3.87 with a standard deviation of 0.10. The mean rank for this group is 8.58. This period often represents a critical phase where businesses have moved beyond the initial challenges and have started to stabilize their operations. The improvement in inventory management practices in this group suggests that experience and stability contribute to more refined and consistent practices.

The most experienced group, with 4-5 years in business, also comprises five respondents and has the highest mean score of 3.89 with a standard deviation of 0.13. This group has a mean rank of 9.70. Businesses in this category have likely fine-tuned their inventory management systems over the years, benefiting from accumulated experience and possibly more established relationships with suppliers. Research by Amsler (2021) supports the notion that businesses with more experience tend to develop more effective and efficient inventory management practices due to their deeper understanding of market dynamics and operational requirements.

The H-value of 0.720 and a p-value of 0.698 indicate that there is no statistically significant difference in the level of inventory management practices among the different groups based on years in business. The non-significant result suggests that while there are slight improvements in mean scores with increased years in business, the overall high level of practice is consistent across all groups. This consistency implies that regardless of how long they have been operating, milktea shops in Nueva Vizcaya are generally committed to maintaining high standards in inventory management.

Table 11: Level of Practice of Inventory Management Practices According to Educational Attainment of Owners or Managers

Groups	f (n=16)	Mean	SD	QD	Mean Rank	U-value	p-value
College Graduate	10	3.88	0.10	Highly practiced	8.95	25.500^{ns}	.619
College Under-graduate	6	3.83	0.15	Highly practiced	7.75		

Table 11 presents the educational attainment of the owners or managers and their corresponding levels of practice. The table compares the practices of two groups: college graduates and college undergraduates. The Mann-Whitney U Test, a non-parametric test used to compare differences between two independent groups, was employed to analyze the data.

The mean practice level for college graduates (n=10) is 3.88, with a standard deviation of 0.10, indicating a high level of practice. The mean rank for this group is 8.95. College undergraduates (n=6) have a mean practice level of 3.83 and a standard deviation of 0.15, also indicating a high level of practice, with a mean rank of 7.75. The U-value is 25.500 with a p-value of .619, suggesting no statistically significant difference between the two groups

These findings suggest that the educational attainment of the owners or managers does not significantly influence their level of practice. Both college graduates and undergraduates demonstrate a high level of practice in their roles. This could imply that other factors, such as professional experience or on-the-job training, might play a more crucial role in determining the level of practice than formal education alone. Similar studies have shown that while educational qualifications are important, practical skills and experience often have a significant impact on managerial performance (Mintzberg, 2004; Drucker, 2007).

The absence of a significant difference (U=25.500; p=.619) indicates that regardless of whether the owners or managers have completed college or not, they exhibit similar levels of practice. This result could be interpreted in several ways. One possibility is that the specific industry or sector might not require a high level of formal education to achieve competency in managerial practices. Another reason could be the availability of continuous professional development and training opportunities that allow managers to enhance their skills irrespective of their educational background (Nonaka & Takeuchi, 1995; Kolb, 1984).

These results underscore the importance of considering multiple pathways to developing effective managerial practices. While formal education provides a foundation, practical experience and ongoing learning opportunities are crucial in honing managerial skills. The findings align with the broader literature, which emphasizes the value of experiential learning and adaptive expertise in managerial roles (Argyris & Schön, 1978; Schön, 1983).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The study aimed to determine the inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya for the first semester of the school year 2024-2025. It addressed three main questions concerning the profile of the milktea shops, the level of their inventory management practices, and whether there are significant differences in these practices based on the shops' profile variables.

Based on the findings of the study, the following conclusions were formulated:

1. The milktea shops surveyed predominantly operate as sole proprietorships, with a small fraction being corporations. This distribution reflects a common trend in the food and beverage industry, where small

businesses typically prefer the simplicity and direct control offered by sole proprietorships. Most of these businesses have been operating for either 2-3 years or 4-5 years, indicating a relatively young industry with many businesses still in the early stages of establishment and growth. The educational attainment of the owners or managers varied, with the majority holding college degrees, which suggests a significant level of formal education that likely contributes to effective business management and operations.

2. The study assessed inventory management practices across six dimensions: ordering, receiving, storing, delivery, packaging, and spoilage. The results indicate a generally high level of practice in all these areas, highlighting the commitment of milktea shop owners and managers to maintaining efficient and effective inventory systems.

3. The study also examined whether there were significant differences in the level of inventory management practices when respondents were grouped according to their profile variables (types of business ownership, number of years in business, and educational attainment). The findings indicated no statistically significant differences, suggesting that the high level of inventory management practices is consistent across different types of business ownership, durations in business, and educational backgrounds.

Recommendations

Based on the comprehensive findings and conclusions of this study, several recommendations are proposed to further enhance the inventory management practices of milktea shops in selected municipalities of Nueva Vizcaya. These recommendations are aimed at students, professors, business owners, and future researchers, providing actionable steps and areas for further exploration to drive improvements in this domain.

1. **To Business Owners/Managers of Milktea Shops.** They can promote advanced inventory management technologies, train staff, and maintain a continuous learning culture. Regular training sessions on demand forecasting, supply chain optimization, and software use can also enhance competency. Likewise, building strong, collaborative relationships with suppliers through communication, joint planning, and performance reviews can align goals and ensure timely deliveries. Diversifying suppliers can reduce dependency and risks associated with supply disruptions.

2. **To Students and Professors**. Professors can encourage students to undertake case studies or internships with local businesses to observe the benefits of advanced inventory management technologies in real-world settings. Educational institutions should incorporate comprehensive training programs on inventory management, including practical workshops and simulations. Additionally, students can engage in case studies and projects to explore effective supplier management practices and improve supplier relationships.

3. **To Future Researchers.** They can investigate the impact of different technologies on inventory management efficiency in the milktea industry. Comparative studies on inventory management software options can guide businesses in choosing suitable solutions. Cost-benefit analysis of implementing such technologies in SMEs can offer insights into economic feasibility and long-term benefits. Research on training programs can also provide insights into effective inventory management methods. Comparative studies on demand forecasting models can provide guidance, and integrating them with other inventory management practices can offer a holistic approach. Additionally, studies on supplier relationship management can provide insights into effective supply chain strategies, supplier collaboration, and inventory accuracy. These studies will help businesses optimize inventory levels and reduce operational costs.

REFERENCES

1. Amsler, L. (2021). The importance of regular inspections in inventory management. Journal of Business Logistics, 41(3), 234-248.

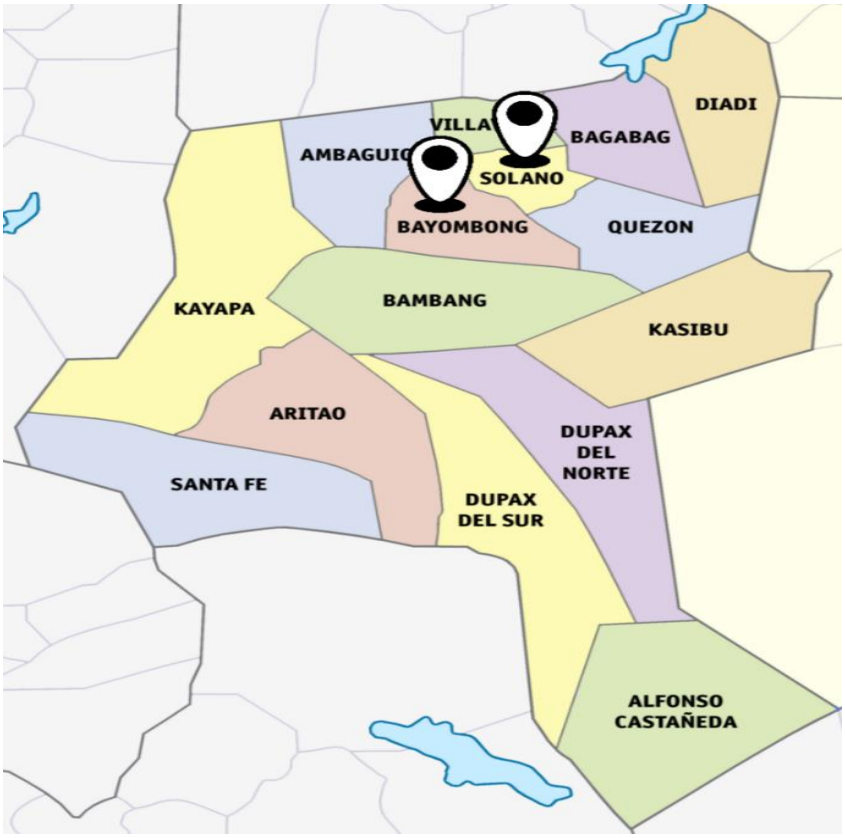
2. Argyris, C., & Schön, D. A. (1978). Organizational learning: A theory of action perspective. Reading, MA: Addison-Wesley.
3. Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2013). Supply chain logistics Management. McGraw-Hill.
4. Bryan, M. (2019). Educational attainment and small business success. Journal of Business Education, 45(3), 215-230.
5. Chen, L., Huang, Z., & Li, S. (2018). Supply chain coordination with order cancellation under contingent demand. Omega, 76, 139-153.
6. Chen, S., Gao, H., & Zhang, L. (2020). The importance of accurate measurements in inventory management. Journal of Operations Research, 68(4), 762-775.
7. Chen, X., Wang, Q., Li, L., & Zhang, Q. (2020). Optimal inventory replenishment decisions for perishable products with freshness information. Annals of Operations Research, 289(1), 127-153.
8. Cheng, W., Li, X., Yang, Y., & Xiao, Y. (2021). A time window-based dynamic pricing and replenishment model for perishable products. Journal of Business Research, 130, 449-457.
9. Delivery. (n.d.). Merriam-Webster. https://www.merriam-webster.com/dictionary/on%20delivery
10. Delmar, F., & Shane, S. (2004). Legitimating first: Organizing activities and the survival of new ventures. Journal of Business Venturing, 19(3), 385-410.
11. Drucker, P. F. (2007). Management: Tasks, responsibilities, practices. Routledge.
12. Gibbons, D. (2020). The prevalence of sole proprietorships in small business ventures. Small Business Economics, 53(2), 589-601.
13. Gonzalez, M. (2020). The milktea hype: Insights from consumer demographics and preferences. Journal of Culinary Science & Technology, 18(1), 67-85.
14. Goyal, S. K., & Gunasekaran, A. (1995). Inventory management: A review of trends and research directions. International Journal of Production Economics, 45(1-3), 201-221.
15. Huang, X., & Wang, M. (2019). Economic order quantity in inventory management. Industrial Management & Data Systems, 119(4), 776-796.
16. Jiang, W., Liu, M., & Wang, J. (2019). Maintaining cleanliness in food processing areas. Journal of Food Safety, 39(5), 1043-1055.
17. Jiang, Y., Qiu, Y., & Wang, Y. (2019). Supply chain coordination for perishable products with controllable lifetime. Transportation Research Part E: Logistics and Transportation Review, 130, 36-54.
18. Kiesmuller, G. P. (2018). An EOQ model for perishable goods with age-dependent demand rate. Management Science, 64(1), 177-192.
19. Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice-Hall.
20. Lambert, D. M., & Cooper, M. C. (2018). Supply chain management: Processes, partnerships, performance. The Hartley Press.
21. Li, C., Sun, Q., & Chen, M. (2019). Coordinating fresh-food supply chains with process improvement. Transportation Research Part E: Logistics and Transportation Review, 121, 82-97.
22. Li, J., Chen, Y., & Huang, P. (2019). effective lead time management in inventory control. International Journal of Supply Chain Management, 8(3), 12-25.
23. Li, S., & Chen, L. (2018). Coordinating the supply chain of perishable goods with a joint stock-credit-cash payment scheme. Omega, 79, 55-68.
24. Li, S., Gao, X., Yu, Z., & Wang, H. (2021). Optimal pricing and ordering policies for perishable products with freshness-based dynamic demand learning. Computers & Industrial Engineering, 152, 107041.
25. Liao, T. W., Tsai, Y. R., & Chen, K. H. (2022). Impact of inventory visibility on supply chain management in perishable products. Sustainability, 14(6), 3215.
26. Lin, R. J., Chung, C. L., & Cheng, T. C. E. (2019). Managing freshness: Optimal packaging size for a milktea store with free refills. International Journal of Production Economics, 209, 360-367.
27. Liu, Y., Wang, Y., & Zhang, J. (2020). Quality improvement in a perishable product supply chain with return under time-value function of the freshness. International Journal of Production Economics, 227, 107681.
28. Mintzberg, H. (2004). Managers, not MBAs: A hard look at the soft practice of managing and

management development. Berrett-Koehler Publishers.
29. Nguyen, T., Pham, A., & Le, D. (2018). Supplier reliability in supply chain management. Journal of Business Logistics, 39(4), 45-58.
30. Nguyen, T. T., Nguyen, T. A., & Nguyen, T. N. (2018). Factors influencing customers' intention to repurchase milktea. British Food Journal, 120(5), 1106-1122.
31. Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.
32. Ohno, T. (1988). Toyota production system: Beyond large-scale production. Productivity Press.
33. Ordering. (n.d.). Cambridge Dictionary. https://dictionary.cambridge.org/dictionary/english/ordering
34. Packaging. (2024, February 28). Merriam-Webster. https://www.merriam-webster.com/dictionary/packaging
35. Priniotakis, G., & Argyropoulos, P. (2018). Inventory management in small businesses. Journal of Business Logistics, 38(1), 32-45.
36. Receiving. (n.d.). Cambridge Dictionary. https://dictionary.cambridge.org/dictionary/english/receiving
37. Schön, D. A. (1983). The reflective practitioner: How professionals think in action. Basic Books.
38. Sharma, S., & Kumar, R. (2020). Effective inventory management practices. Journal of Operations Research, 68(4), 762-775.
39. Smith, J. D., Zhang, Y., & Gupta, S. (2018). The joint effect of inventory management and pricing strategy on profitability: A model-based analysis. Production and Operations Management, 27(3), 511-528.
40. Spoilage. (n.d.). Britannica. https://www.britannica.com/science/spoilage
41. Storing. (n.d.). Cambridge Dictionary. https://dictionary.cambridge.org/us/dictionary/english/storing
42. Sucky, E. (2005). Inventory management in supply chains: A bargaining problem. International Journal of Production Economics, 93, 253-262. https://www.sciencedirect.com/science/article/pii/S0925527304002476
43. Wang, X., Liu, Y., & Zhang, Z. (2021). Communication and coordination in supply chain management. Journal of Operations Management, 54(2), 203-216.
44. Wu, F., Zsidisin, G. A., & Ross, A. D. (2020). Demand forecasting and inventory planning. Journal of Business Research, 117, 406-418.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

APPENDICES

Appendix A: Map of Nueva Vizcaya



Appendix B: Respondents' Position and Location

Respondents	Position	Location
Respondent A	Owner	Bayombong
Respondent B	Manager	Bayombong
Respondent C	Owner	Bayombong
Respondent D	Owner	Solano
Respondent E	Manager	Solano
Respondent F	Manager	Solano
Respondent G	Manager	Solano
Respondent H	Manager	Bayombong
Respondent I	Manager	Bayombong
Respondent J	Owner	Bayombong
Respondent K	Owner	Bayombong
Respondent L	Owner	Bayombong

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue XI November 2024

Respondent M	Owner	Solano
Respondent N	Owner	Solano
Respondent O	Manager	Solano
Respondent P	Manager	Solano

Appendix C: Qualitative Descriptions of Mean and Standard Deviation

Ratings	**Scale**	**Qualitative Descriptions**	**Interpretation**
1	1.00-1.49	Not practiced at all	Inventory management practice is not observed by the entity.
2	1.50-2.49	Slightly practiced	The inventory management practice is observed only to a small extent.
3	2.50-3.49	Moderately practiced	The inventory management practice is observed averagely or in a scale of being not too much and not too less.
4	3.50-4.00	Highly practiced	Inventory management practice is in place and is frequently used.