

# INVENTORY MANAGEMENT SYSTEM OF THE SELECTED PHARMACIES IN THE CITY OF BALIWAG: AN ASSESSMENT

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## **Abstract**

The purpose of this study was to assess the perceived financial performance of selected pharmacies in the City of Baliwag by examining the effectiveness, challenges, and benefits of their inventory management system. Furthermore, it sought to determine whether there is a significant relationship and differences in inventory management when the pharmacy's firmographic profile is considered in terms of perceived financial performance, as well as the effectiveness, challenges, and benefits of its inventory system. Researchers used a descriptive-correlational research design to effectively investigate the relationship between the variables. Purposive sampling was used to determine the sample size and collect information from the 30 pharmacies. The results of this study showed that there is a significant positive relationship between perceived financial performance and perceived effectiveness as well as the benefits. On the other hand, there is no significant relationship between perceived challenges and perceived financial performance. The study also found no significant differences based on the type of pharmacy and firmographic profile in terms of perceived effectiveness, challenges, and benefits of IMS. Thus, it is concluded that despite the effectiveness and benefits of the IMS, some challenges may arise. Yet, despite these challenges, the perceived financial performance of pharmacies remains high. Furthermore, the researchers concluded that differences in the firmographic profile of the pharmacy market do not significantly affect the perceived effectiveness, challenges, and benefits of the inventory management systems. With that, it is recommended that pharmacies prioritize implementing advanced inventory management systems and practices tailored to their specific operational needs.

**Keywords:** financial performance, effectiveness, challenges, benefits, inventory management system

## Introduction

The inventory management system was developed in able to help businesses ensure the number of stock in the warehouse, determine inventory accuracy, and refine data security and business-customer relationships. The rise of this system paved the way for a more structured and enhanced process of procurement of additional inventory. However, despite the development of inventory management systems for more than one century, most businesses, specifically Small and Midsize Enterprises (SMEs) are experiencing difficulties in navigating and processing their inventory due to several factors that significantly affect the system's effectiveness. On the other hand, the escalation of modernization requires businesses to strengthen their system and update their program in order to keep track of supplies and demand.

According to the 2020 survey by the Statistics Research Department in the Philippines, SMEs with more effective inventory systems delivered fifty-two percent (52%) of their finished product to their consumer which is twelve percent (12%) higher than businesses with weak inventory systems. Nevertheless, businesses with poor inventory systems are susceptible to low return on investment (ROI) and flawed internal control. To give illumination to this problem, the researchers will assess the inventory system management of selected pharmacies in Baliwag City. The researchers chose Baliwag City, specifically the town proper, as the setting of the study, seeing that the community has numerous pharmacies that cater to everyone.

The healthcare system plays a vital role in the country by ensuring the medical safety of everyone. Pharmacies as well as pharmacists are important in our lives, as they supply life-saving medications prescribed by a doctor. According to the Indonesia International Institute for Life Science (2021), pharmacy is a clinical health science that integrates both chemistry and medical science. Therefore, it is responsible for the production, discovery, proper disposal, safe and effective use, and regulation of prescriptions and pharmaceuticals. On the other hand, Cagedim Healthcare Solutions (2022) mentioned that unsuccessful transactions of medicines before their expiry date are the outcome of establishing a deficient inventory system. In line with this, dead stock or inventories that are unable to sell will lead to a risk of low revenue which will cause financial damage to the entity. Ac-

cording to Kolawole (2019), an entity's ability to manage its inventory effectively and efficiently will determine if it will grow and survive as, if this is not done, the entity will not be able to achieve its desired goals.

In bridging the gap of dilemma in the inventory management system among the pharmacies in Baliwag City, this descriptive-correlational research will provide vital information about the inventory management systems of different pharmacies. Furthermore, the study allows the researchers to explore and focus on businesses that are prone to inventory system failure and volatility. This study will focus on the investigation and analysis of the current inventory management system of the pharmacy while assessing the perceived financial performance of the selected pharmacies and the effectiveness, challenges, and benefits of managing the inventory system.

## Significance of the Study

This chapter indicates the importance of this study which will be beneficial to the following who can use this to gain new knowledge and to have enough apprehension about the said study.

The following will benefit the study:

**To the Pharmacy Owners.** The result of this study will be deemed worthy to every pharmacy owner for it will give them a wider understanding of proper inventory management systems. It will also give them an opportunity to comprehend the factors that they might encounter in establishing an enhanced system that is suitable for day-to-day operations. At the end of the study, the owners are able to determine the effectiveness of an inventory management system in their business.

**To Inventory Managers.** The outcome of this study will help the inventory managers to strengthen their inventory controls and assess the proper management of their stocks. The recommendations that will be cited in this study might also be used as their reference to reflect their current inventory system and determine if establishing or augmenting their present system is needed.

**To the Future Researchers.** The idea presented will be a useful basis that will give an overview to the researchers who plan to have a related study. This study will provide vital information that will serve as an instrument for research-related activities and will help them gain insight into the study. It will also serve as a reference or source for new wider scope and related studies for future use.

### **Review of Related Literature Inventory Management System**

By providing an in-depth response to the various issues that modern pharmacies must deal with the pharmacy inventory system represents a major advancement in the field of pharmaceutical management. It supports increasing security, accuracy, and efficiency in the administration of pharmaceutical inventories. According to Kovalenko (2023), a pharmacy inventory management system is software that manages the process of filling prescriptions, from stocking to coding and billing to confirm the drugs before selling them to patients. It enables pharmacists to conveniently check drug information, manage product inventories, lower errors associated with medicine dispensing and increase client satisfaction and safety.

### **Effectiveness of Inventory Management System**

Inventory management involves monitoring, ordering, and checking items or products in the warehouse or stockroom to track the physical counts of items that the business has on hand. According to Alam, Thakur, & Islam (2023), inventory is an essential component of a company's structured supply chain, used to balance supply and demand for products. Effective inventory management can result in increased revenue and profits. Therefore, good inventory management plays a crucial role in every business, particularly in identifying available items in the warehouse.

Pharmacies, being part of the healthcare system, must maintain effective and efficient inventory management. They purchase pharmaceuticals in large volumes from producers at a low cost and sell them at a higher price to retailers, generating profit. As a result, drug dealers are responsible for maintaining an adequate inventory with high-quality pharmaceuticals of all kinds and providing them to retailers or clients at reasonable

prices to ensure consistent assistance from the healthcare sector (Kalita & Kalita, 2022). These pharmacies must ensure the quality of medicines and drugs while meeting customer demands for pricing.

### **Challenges of Inventory Management System**

The challenges in managing inventories are inevitable and the only method to minimize the risk of devastating inventory malfunctions is to have a consistent yet functional system. In accordance with ScriptPro (2019), conforming an inventory system to the operating cycle of a pharmacy is arduous and necessary to be systematic in each process of development. This is supported by Jobira, Abuye, Jemal, & Gudeta (2022) by enumerating the obstacles and several factors that hinder the management in exercising a good pharmaceutical inventory system. This includes the pricing system, employee's capabilities, human resources impact, and management's supervision. Consequently, challenges in monitoring and evaluating the inventories' adequacy will not be detached, thus, intensive planning and control are necessary. However, problems associated with inventory management can be eliminated by implementing an appropriate and effective inventory system.

**Inventory Loss due to Expiration.** Dead stock is one of the problems in a merchandise business. This occurs when products are not able to sell during their shelf life. As a result, the entity will experience a decrease in inventory that directly impacts its profitability. As stated by Bentein (2021), a product that has a limited time shall be managed accordingly by the company due to the fact that expired inventory has the potential to decrease the income of the firm. The continuous occurrence of this problem might be an indication that the current inventory management system of the entity is not sufficient and requires to be redeveloped in order to meet the needs of the company and the demands without experiencing any loss.

**Entity Experiencing Stock Out or Overstock.** Entity experiencing stock out or "out-of-stock" is one of the main challenges in establishing an adequate inventory system. This event occurs due to unexpected demand or due to unpredictable events. During the year 2020, the pharmacies experienced numerous demands for medicines due to the surge of Corona Virus Disease

(COVID-19). Unfortunately, most pharmacies were not able to meet the number of demands. In congruence with the research conducted by Muchaendepi, Mbohwa, Hamandise, &Kanyepe (2019), a lot of SMEs are not able to accurately assess the demand and supply which leads to excess of stocks or stock out. On the other hand, Atnafu and Balda (2018) states that every business aims to reach enough inventory necessary to sustain the demand while not experiencing loss due to stock out.

**Inventory Theft.** A sudden decrease in inventory may also be caused by a perpetrator either by the personnel employee or management. Therefore, adequate internal control shall be done by initially implementing segregation of duties in order to prevent this illegal act that has the ability to make the business suffer from significant loss. According to Ali (2023), inventory shrinkage can create a negative impact on business operations as it can influence the inventory by decreasing it, which can also reduce profits, and increase the cost of purchasing stocks. Furthermore, inventory theft may also occur by shoplifting where the customers are the ones who make the inappropriate actions. In line with this, strengthening and making strict security must be done in able to minimize this problem.

**Damaged on Inventory.** Destruction or damage in the product might happen because of the shipment, handling, or the processing of product prior to delivery. However, this is a chronic inventory problem that is inevitable yet can be solved through thorough checking and a proper inventory system. In accordance with Melanie (2020), damaged stock may happen in day-to-day transactions of the entity, and this destroyed inventory will become waste, thus, it cannot be used nor sold resulting in decreased profit while increasing the cost of purchases for another inventory. Nevertheless, the entity shall have a preventive measure when they incur other purchases of inventory in order to detect spoiled and unusable products.

**Poor Inventory Management.** Establishing an insufficient and inadequate inventory system will result in the inability to sustain a balanced inventory and capacity to serve the needs of the customer. As stated by Cegedim Healthcare Solutions (2022), poor inventory management is one of the sources of shrinkage stocks on which the profitability of the pharmacies is affected. Therefore, effective monitoring and evaluation of products is

crucial in improving cash flow while reducing costs. There are several issues pertaining to the achievement of an effective inventory system, thus, implementing tightened controls to safeguard the assets will provide the company a greater success.

### **Benefits of Inventory Management System**

The use of an Inventory Management System has brought various benefits to the operations of businesses as it streamlines the process of inventory management, and improves cash flow and service to customers. Having an effective inventory system would help to keep the stocks needed and the inventory at an optimal level (Kalita, 2022). In a study conducted by Basha and Wani (2020), various inventorial methodologies were tested to determine the efficacy of each method. The results showed that using inventory management systems has benefitted their business in keeping supplies at the ideal level and minimizing losses due to expiration and delivery delays. This assertion was supported by Khalid and Lim's (2018) study, which examined how the inventory management system improved business performance and profitability for the entities compared to using the conventional approach they had previously used.

The benefits of an inventory management system were also shown by Kovalenko (2023), who mentioned that one of its uses in pharmaceutical industries is expiration control. This allows pharmacies to sort medicines and drugs by expiration date and signals them which ones are about to expire. Cegedim Healthcare Solutions (2022) also demonstrated that IMS assists in identifying sales trends in order to determine which products are in high demand.

### **Perceived Financial Performance**

Every business has the goal of making good revenue and meeting the desired profit. Financial performance is evaluated to determine the company's well-being and financial standing as well as attract investment opportunities. Entrepreneurs' satisfaction with sales growth, profitability, and return on investment are measured in terms of perceived financial performance. (Tehseen et al., 2019). It is as important as inventory management because a good financial standing makes the firm survive and helps in the continuous growth of the company. According to Duncan (2023),

business finance is crucial in the firm because it helps in making a well-informed decision about where to spend, where to allocate resources, and how to save money to achieve the short- and long-term objectives of the company. Moreover, measuring the financial performance gives the company confidence in making decisions and provides insights for the future of the firm.

Effective business management can lead to good financial performance as well as proper utilization of the inventory management system. The financial success of a business depends on its inventory management since it helps identify the ideal quantity of product to have on hand in order to reduce stockouts, inventory carrying costs, and incorrect documentation (Frye, 2022). Proper management can increase the potential of the company to be known by investors because of its good financial standing in the market. According to Gaoat et al. (2023), ineffective stock management reduces efficiency, which has a detrimental effect on a company's financial performance and puts it in a difficult logistical and financial situation. Since the perceived financial performance of a company is measured through profits, sales growth, and assets, any mismanagement in the inventory system can damage the financial performance of the firm.

### **Effectiveness, Challenges, and Benefits of Inventory Management System**

As the pharmacy is prone to complex operations, it is necessary to formulate and maintain a strong inventory system. Indeed, an effective inventory management system has the ability to have an impact on a firm's survival in the market. According to a blog by Cegedim Healthcare Solutions (2022), a constructive inventory management system provides a better cash inflow and outflow, decreases the instances of experiencing a dead stock that leads to an increased return, and augments the productivity of the employee and the pharmacy itself. The pharmacy inventory system plays an essential role in keeping the records updated and accurate. Also, it helps in tracking sales to keep the business operating for a long period of time. In line with this, Taya (2023) defined pharmacy inventory management as the process of effectively controlling the pharmacy's inventory. Effectiveness in the management system helps lower inventory costs for expired drugs, boost operational effectiveness, minimize overstocking, easily spot shrinkage, and avoid inventory theft.

All businesses encountered different challenges that tested their management and operations. Inventory management is vital in the life of a business because it keeps track of all stocks on hand and limits the experience of stockouts. Szwed (2022) stated that business image is affected due to their inability to complete orders on time and suffered losses from poor inventory management. Limited visibility can cause overstocking and shortages because identifying all the items in stock will be much more difficult for the inventory manager. If the inventory management system is not properly utilized, losses and product waste can often happen to the business.

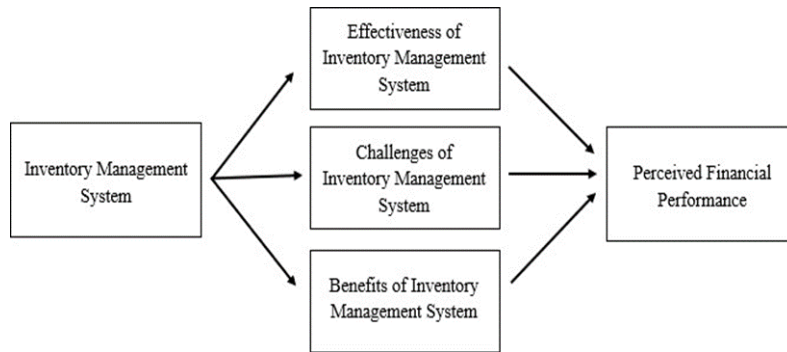
A pharmacy has numerous drug inventories that need to be easily tracked and located because of the important dates indicated in every item. Another result of a poor inventory management system is inventory theft. The inventory manager cannot easily detect the theft because it happens inside the business. Ensuring the accuracy of the quantity per medicine or medical supply can lessen the risk of theft inside the pharmacy. Challenges in the inventory management system are inevitable, but there are ways to have an effective inventory management system.

### **Theoretical Framework**

**Stochastic Inventory Theory.** Inventory management plays a great role in pharmacy operations as it aims at reducing procurement and carrying costs while maintaining an effective stock of products to satisfy prescriber demands. Stochastic inventory control is of paramount importance in supply chain management because it acknowledges the uncertainty and variability in demand, lead times, and supply chain dynamics. It helps businesses determine optimal inventory levels, reorder points, and order quantities that strike a balance between meeting customer demand and minimizing inventory holding costs, while also considering the risk of stockouts. According to Kumar, & Thomas (2018), their study provides a comprehensive review of stochastic inventory management models with the aim of improving inventory control, and it highlights the importance of Stochastic Inventory Theory in inventory management systems. The authors conclude that this theory is a critical component in developing effective inventory management systems and explain how it can be applied to a range of scenarios such as stock replenishment and demand forecasting. Therefore, this theory is essential in

modern supply chain management as it enables informed decision-making in an unpredictable business environment, enhances operational efficiency, and ensures customer satisfaction.

### Conceptual Framework



**Figure 1.** Paradigm of the Study

### Statement of the Problem

The researchers aim to assess the perceived financial performance of selected pharmacies through the effectiveness, challenges, and benefits of their inventory management system in Baliwag City. In this study, the researchers intend to analyze each factor and answer the following specific questions:

1. What is the firmographic profile of the respondents:
  - 1.1 Type of Pharmacy Market,
  - 1.2 Number of years in operation, and
  - 1.3 Educational level of owner/pharmacist/staff?
2. How may the inventory management system of the respondents be described in terms of:
  - 2.1 Effectiveness,
  - 2.2 Challenges and
  - 2.3 Benefits?
3. How may the perceived financial performance of the respondents be described?

4. Is there a significant difference in the inventory management system of the respondents when they are grouped according to their firmographic profile?
5. Is there a significant difference in the perceived financial performance of the respondents when they are grouped according to their firmographic profile?
6. Is there a significant relationship between inventory management system and the perceived financial performance of the respondents?

### Hypotheses of the Study

The hypotheses below are tested in the study:

- Ho<sub>1</sub>: There is no significant difference in the inventory management system of the respondents when they are grouped according to their firmographic profile.
- Ho<sub>2</sub>: There is no significant difference in the perceived financial performance of the respondents when they are grouped according to their firmographic profile.
- Ho<sub>3</sub>: There is no significant relationship between inventory management system and the perceived financial performance of the respondents.

### Method

#### Research Design

This study used the descriptive-correlational research method in describing and connecting the inventory management system to its effectiveness, challenges, and benefits, and assessing the perceived financial performance of selected pharmacies in Baliwag City. This kind of study is utilized in order to establish a concise depiction of the identified problem and develop a relationship between the variables. In this kind of study, the researchers are aiming to use a Descriptive-Correlational Survey Research Design consisting of questionnaires in order to acquire substantial data for the study. The data collection period can

change depending on how much emphasis the study is given. Data gathering then came next. As a quantitative study, this study was not contextualized or given an interpretive framework. As a result, only the numerical or statistical data would be interpreted instead of interpretations based on opinion in declarative form. An in-depth discussion of some phenomena is avoided explicitly in the findings. The data interpretation process excludes the respondents' views and messages regarding the subject.

### Population of the Study

The population of this study consisted of thirty (30) pharmacies in Baliwag City comprising the pharmacies operating within the geographical boundaries of the municipality. Baliwag is a thriving city with a significant population density, providing a diverse range of pharmacies. The researchers opted to use purposive sampling as their sampling method. This involved the selection of specific participants who possess unique characteristics or experiences that are necessary for the study. In this study, the researchers used the purposive sampling technique to accurately select the specific respondents necessary to obtain the required information. This sampling method ensured that the data gathered met the study's specific and targeted requirements. Through this technique, they were able to form a sample that is representative of their target population and gather more accurate and informative data. However, they acknowledged that relying solely on purposive sampling may result in selection bias and limit the generalizability of their findings.

To ensure that their research question is addressed appropriately, the researchers carefully selected and implemented this technique in their study. The selected pharmacies in Baliwag cater to a wide demographic, serving the medical needs of residents from various socioeconomic backgrounds. The study will include pharmacies of different sizes, ownership types, and customer bases. This will allow researchers to assess the perceived financial performance of the pharmacies and understand the inventory management practices of a wide range of pharmacies and how these practices show the effectiveness, benefits, and challenges of healthcare services in Baliwag City.

### Research Instrument

The researchers adapted four instruments from different studies that will help in gathering the data needed. The survey questionnaire from Dikgale (2018), entitled "Assessing the Effectiveness of the Inventory Management System of the Wind Tunnel Facilities" will be used to assess the inventory management systems through their effectiveness, challenges, and benefits for selected pharmacies in Baliwag City. The survey questionnaires from Deogratus (2020) entitled "Cash Management and Financial Performance of Small-Scale Businesses in Bombo Town Council in Luweero District-Uganda" and McClellan (2020) entitled "Correlations to Financial Performance in the Pharmaceutical Industry" will be used to assess the perceived financial performance of the selected pharmacies in Baliwag City. All studies will be modified, combined, and validated to gather the necessary data needed by the researchers.

The questionnaire is divided into three parts:

**First Part.** The firmographic profile of the respondents includes the name of respondent (optional), name of pharmacy, type of pharmacy market, number of years in operation and educational level of owners or pharmacist.

**Second Part.** The respondent's evaluation of the level of inventory management system through effectiveness, challenges, and benefits.

**Third Part.** The respondent's evaluation of the perceived financial performance of the pharmacy.

The researchers use a Likert scale, in which the respondents will rate the following statements from 4 to 1, with 4 being the highest and 1 being the lowest. The scoring of the Likert scale for the survey questionnaire is: 4 for Strongly Agree, 3 for Agree, 2 for Disagree, and 1 for Strongly Disagree.

The reliability and validity of the data are vital for producing objective findings when performing a research study. Hence, the survey questionnaire will undergo modification and validation before the researchers conduct a study. The comments,

ideas, and revisions will be incorporated into the instrument's remodification. The validation of instruments will be included in the Appendices.

### **Ethical Considerations**

The researchers use the following ethical considerations to achieve these goals while also respecting the rights of each respondent.

**Informed consent.** A consent form is included in the first section of the questionnaire to let the respondents know that their participation in the study is entirely voluntary and that they have the right to decline their involvement in its conduct, in addition to a brief explanation of the procedures and importance of the study indicated in the forms before the survey is administered. The respondents will be given a thorough explanation by the researchers so that they would be aware of the advantages and disadvantages of disclosing their responses and identities in order to collect data for the study's analysis and interpretation.

**Anonymity and confidentiality.** The researchers will ensure that no one who is not directly involved in the conduct of the study will have access to the demographic profile of the research participants as part of their commitment to protecting their rights. In order to ensure that the responses of the participants could not be linked to their identity in research reports or presentations, the survey questionnaires will also be handled and maintained in confidence.

**Honesty, sympathy and respect.** To ensure that the data collection process is ethically acceptable, the researchers will give the respondents an assurance that they are reliable and that the information that will be collected from them would be treated with respect and not be used for any other purposes. To properly credit the authors of the cited sources, the researchers will use the right citations and references. Researchers also ensure that the data gathered will not be manipulated, made up, or presented based solely on speculation.

### **Data Gathering Procedures**

This section shows the procedure followed to gather the necessary data for the conduct of the study. It presents several processes to obtain the most reliable data from the participants. Data gathering procedure is a crucial key to ensure the success of the study in terms of establishing a systematic plan that enables the researchers to answer stated questions and evaluate outcomes. Permission from the professors was sought to ensure the smooth conduct of data gathering. The researchers will collect information for the study from the selected pharmacies of Baliwag City. There are two: the primary source and the secondary source.

The distribution of questionnaires to the respondents will be the primary source of data collection. These questionnaires will be distributed to the pharmacies in the said city. The researchers took effort in explaining to the respondents why such a study was made in order to solicit responses in answering the instrument and to clarify certain responses made by the respondents. The researchers did retrieval of the said questionnaire personally and the results were treated with almost confidently. Information that will be collected from the respondents will help the researchers to make their data classified, tabulated, and interpreted.

The second chapter of this study, Review of Related Literature, will be created using secondary sources through the information from libraries and study centers by means of conduction of in-depth research.

### **Statistical Treatment**

The study mainly uses the Statistical Package for the Social Sciences (SPSS) to conduct a quantitative analysis of the data that will be gathered in order to ensure higher reliability and accuracy. To interpret the gathered data, the researchers will use the following:

**Frequency and Percentile** will be used to answer SOP number 1 specifically to describe the firmographic profile of the Pharmacy in terms of type of pharmacy market.

**Weighted Mean and Standard Deviations** will be used to describe variables such as the effectiveness, challenges, and benefits of the inventory management system and the perceived financial performance of the pharmacy in order to get the average scores or central value.

**Analysis of Variance (ANOVA)** will determine the significant difference in inventory management effectiveness, challenges, benefits, and the perceived financial performance of the pharmacy between the different firmographic profiles of the selected pharmacies.

**Pearson product-moment correlation coefficient** will determine the significant relationship between the effectiveness, challenges, and benefits of the inventory management system and the perceived financial performance of the pharmacy.

The researchers will use a four-point Likert scale with no neutral point and two extremes (1 and 4) to represent the opposing agreements as their measurement tool. The scoring of the Likert Scale is for the favorable statements:

#### Level of Effectiveness, Challenges, and Benefits of IMS

Point	Scale	Verbal Interpretation	Description
4	3.26 – 4.00	Strongly Agree	Very High
3	2.51 – 3.25	Agree	High
2	1.76 – 2.50	Disagree	Low
1	1.00 – 1.75	Strongly Disagree	Very Low

#### Perceived Financial Performance

Point	Scale	Verbal Interpretation	Description
4	3.26 – 4.00	Strongly Agree	Very Satisfactory
3	2.51 – 3.25	Agree	Satisfactory
2	1.76 – 2.50	Disagree	Fairly Satisfactory
1	1.00 – 1.75	Strongly Disagree	Unsatisfactory

In addition, researchers will also use the Pearson product-moment correlation coefficient to measure the strength of the relationship between the variables. The interpretations for the size of a correlation coefficient are the following:

Size of Correlation	Interpretation
±1.00	Perfect positive/negative correlation
±.71 to .99	Strong positive/negative correlations
±.51 to .70	Moderately positive/negative correlation
±.31 to .50	Weak positive/negative correlation
±.01 to .30	Negligible positive/negative correlations

## Results and Discussions

**Table 1.** Frequency and Percentage Distribution of Firmographic Profile of Pharmacies according to Type of Pharmacy Market

Type of Pharmacy Market	Frequency	Percentage
Botika ng Barangay	9	30.0
Hospital Pharmacy	6	20.0
Retail Pharmacy Chain	15	50.0
<b>Total</b>	<b>30</b>	<b>100.0</b>

Table 1 presents the firmographic profile of the pharmacies according to the type of pharmacy market. Among the 30 businesses, nine (30.0%) are under the category of Botika ng Barangay. Six (20.0%) are hospital pharmacies. Meanwhile, 15 (50.0%) of the respondents are retail pharmacy chains. According to Statistica (2023), with projected total sales of over 236 billion Philippine pesos in 2022, the pharmaceutical industry in the Philippines is expanding rapidly. The retail sector, especially pharmacies, accounts for around 90% of sales; hospitals supply the remaining 10%. In line with this, there are also numerous retail pharmacy chains in Baliwag City that supply pharmaceutical products to the people.

**Table 2.** Frequency and Percentage Distribution of Firmographic Profile of Pharmacies according to Number of Years in Operation

Number of Years	Frequency	Percentage
Less than a Year	4	13.3
1-5 Years	11	36.7
5-10 Years	5	16.7
More than 10 years	10	33.3
<b>Total</b>	<b>30</b>	<b>100.0</b>

Table 2 presents the firmographic profile of the pharmacies according to the number of years in operation. Among the 30 pharmacies, four (13.3%) have been in operation for less than a year. Eleven (36.7%) pharmacies have been in operation for one to five years. Five (16.7%) pharmacies have been operating for five to 10 years. Lastly, 10 (33.3%) have been operating for more than 10 years. Pharmacies and drug stores in the Philippines are seeing tremendous growth, and this trend is expected to continue in the coming years. It is anticipated to expand quickly due to the aging population, rising chronic illness rates, and changing healthcare systems (6Wresearch, 2023). The number of pharmacies increased when the COVID-19 pandemic happened because the demand for drugs and medical supplies also increased.

**Table 3.** Frequency and Percentage Distribution of Firmographic Profile of Businesses according to Educational Level of Owner or Pharmacist or Staff

Educational Level	Frequency	Percentage
Licensed Pharmacist	16	53.3
Bachelor's Degree	11	36.7
College Undergraduate	3	10.0
<b>Total</b>	<b>30</b>	<b>100.0</b>

Table 3 presents the profile of the pharmacies according to the educational level of the owner or pharmacist or staff. Among the 30 pharmacies, 16 (53.3%) have licensed pharmacists. Eleven (36.7%) pharmacies have owners or pharmacists or staff who are Bachelor's degree holders. Lastly, three (10.0%) of

the pharmacies are owned and managed by a college undergraduate owner/staff. In a pharmacy business, it is essential to have a pharmacist to ensure medication safety for customers. They play a crucial role in creating a trustworthy and efficient healthcare system. Community pharmacists maintain medication safety in the same way that they would in any healthcare setting: during the entire process of using pharmaceuticals, from ordering them to storing, typing, preparing, dispensing, advising, and more (Hall & Luchen, 2021).

**Table 4.** Mean and Standard Deviation Interpretation for Respondents' Perception of Inventory Management System in terms of Effectiveness

Effectiveness	SD	M	Interpretation
1. There are inventory management system policies and procedures in the pharmacy.	0.504	3.77	Strongly Agree
2. Records of physical inventory are tracked, documented, and maintained.	0.521	3.73	Strongly Agree
3. There are controlled and maintained storage areas for the pharmacy's supplies.	0.547	3.67	Strongly Agree
4. A higher level of safety stock is required by the pharmacy.	0.615	3.63	Strongly Agree
5. The appropriateness of physical inventory counting frequency to preserve inventory accuracy.	0.681	3.53	Strongly Agree
6. Critical updates and real-time information on inventory are available and accessible.	0.679	3.43	Strongly Agree
7. Inventory records are reconciled on a regular basis.	0.679	3.43	Strongly Agree
8. There is adequate provision made for obsolete and inactive items in inventory.	0.661	3.33	Strongly Agree
<b>Overall Weighted Mean</b>	<b>0.611</b>	<b>3.57</b>	<b>Strongly Agree</b>

Table 4 presents the mean and standard deviation of the respondents' perceptions of their inventory management system in terms of effectiveness. The table shows that they perceive their inventory management system to have a very high level of effec-

tiveness based on the average weighted mean ( $SD = 0.611$ ,  $M = 3.57$ ). Likewise, all eight indicators of this variable received a “Strongly Agree” interpretation.

This shows that the inventory management system of the pharmacy is effective in maintaining the supplies needed for the business. The pharmacy that utilizes IMS can easily monitor the number of stocks, real-time information about the medicines, the records of the customers, and the sales of the business. It is an easier way for the pharmacists to maintain and control the storage areas for the inventories. It can also reduce errors in the inventory because of the numerous stocks available in the pharmacy. According to Frye (2022), inventory management procedures used by the company have a direct impact on its effectiveness, responsiveness, and financial success.

**Table 5.** Mean and Standard Deviation Interpretation for Respondents’ Perception of Inventory Management System in terms of Challenges

Indicators	<i>SD</i>	<i>M</i>	Interpretation
1.The pharmacy experienced stockouts.	0.997	3.20	Agree
2.The pharmacy experienced inventory loss because of expired products.	0.828	2.93	Agree
3.The pharmacy experienced overstock.	0.960	2.90	Agree
4.Poor inventory management caused insufficient inventory in the pharmacy.	1.008	2.53	Agree
5.The pharmacy frequently receives damaged inventory or stocks.	1.015	2.07	Disagree
6.The pharmacy experienced theft of inventory.	0.885	1.90	Disagree
<b>Overall Weighted Mean</b>	<b>0.949</b>	<b>2.59</b>	<b>Agree</b>

Table 5 presents the mean and standard deviation of the respondents’ perception of their pharmacy’s inventory management system in terms of challenges. The table shows that they perceive their inventory management system to have a high level of challenges based on the average weighted mean ( $SD = 0.949$ ,  $M = 2.59$ ).

The pharmacy experienced different problems in terms of inventory because medical supplies are difficult to manage, and the results showed that four out of six indicators received high interpretation. By using inventory management systems, the pharmacy’s stocks are easy to identify, track, and manage, especially the expiration dates of the medicines. However, pharmacy businesses still experience inventory loss, overstocking, and stockouts because those are inevitable challenges in a pharmacy business. With the help of an inventory management system, the problem with pharmacy inventory can be reduced and insufficient inventory can be prevented. All pharmacies struggle with managing the supply of medications. Keeping an eye on inventory levels is also crucial to the functioning of any successful pharmacy, since it directly affects operating expenses and profit margins (ScriptPro, 2019).

**Table 6.** Mean and Standard Deviation Interpretation for Respondents’ Perception of Inventory Management System in terms of Benefits

Indicators	<i>SD</i>	<i>M</i>	Interpretation
1.Leads to more organized inventory storage areas	0.450	3.73	Strongly Agree
2.Provides flexibility to adapt to any arising situation in the store	0.479	3.67	Strongly Agree
3.Aids in accurate planning	0.479	3.67	Strongly Agree
4.Strategy increases efficiency and productivity	0.479	3.67	Strongly Agree
5.Assures on supplies availability that leads to client retention	0.490	3.63	Strongly Agree
6.Minimizes inventory costs and maximizes sales and profits	0.556	3.63	Strongly Agree
7.Improves the quality and the efficiency of the store	0.563	3.60	Strongly Agree
8.Reduces holding costs	0.626	3.43	Strongly Agree
<b>Overall Weighted Mean</b>	<b>0.515</b>	<b>3.63</b>	<b>Strongly Agree</b>

Table 6 presents the mean and standard deviation of the respondents' perception of their pharmacy's inventory management system in terms of benefits. The table shows that they perceive the benefits of their inventory management system to be of a very high level based on the overall mean ( $SD = 0.515$ ,  $M = 3.63$ ). Likewise, all the eight indicators of this variable also received an interpretation of "Strongly Agree".

The use of an inventory management system is very beneficial to a pharmacy business because it makes their inventory management easier, less time-consuming, and more accurate. It helps to lessen inventory costs and losses because it will result in a net loss. On the other hand, proper utilization of the inventory management system leads to more organized inventory, an increase in sales, client retention, and the efficiency of the store. According to Rahul (2023), pharmacists are pushing into a more active position in patient care with the use of pharmacy inventory management software and its interaction with interoperable solutions, which helps to modernize pharmacies. Pharmacy inventory management software is specifically created to improve patient safety, streamline operations, and guarantee regulatory compliance.

**Table 7.** Mean and Standard Deviation Interpretation for Businesses' Perceived Financial Performance

Indicators	<i>SD</i>	<i>M</i>	Interpretation
1.Survival of this business has been due to the profits you always earn.	0.507	3.47	Strongly Agree
2.The business profitability is continuously increasing.	0.592	3.17	Agree
3.In the last few months, the sales revenue in the organization has increased.	0.592	3.17	Agree
4.The returns on capital employed is appropriate to the expectations of the owner(s).	0.571	3.13	Agree
5.The business always meets the desired profits.	0.521	3.07	Agree
6.In the last few months, the controllable costs in the organization have decreased.	0.718	3.03	Agree
7.The business revenue has always exceeded the expenditure.	0.615	3.03	Agree
<b>Overall Weighted Mean</b>	<b>0.588</b>	<b>3.15</b>	<b>Agree</b>

Table 7 shows that the pharmacy business resulted in good financial performance, which means they always meet the desired profits and even exceed the target revenue. A proper inventory management system helps in the growth and profitability of the business. As stated above, pharmacy business is difficult to manage, but with the help of pharmacists who have knowledge of inventory management systems, it can be managed effectively. According to Althaqafi (2020), a company's financial performance can be enhanced by inventory management through lower carrying costs, fewer stockouts, better cash flow, and more profitability.

**Table 8.** Kruskal-Wallis Test Results of Perceptions of Inventory Management System across Groups based on Type of Pharmacy Market

Variable	Groups	Mean Rank	$X^2$	<i>df</i>	<i>p</i>	Decision
Effectiveness	Botika ng Barangay	16.89	.358	2	.836	Accept Ho
	Hospital Pharmacy	14.42				
	Retail Pharmacy Chain	15.10				
Challenges	Botika ng Barangay	14.28	1.554	2	.460	Accept Ho
	Hospital Pharmacy	12.58				
	Retail Pharmacy Chain	17.40				
Benefits	Botika ng Barangay	16.28	.106	2	.948	Accept Ho
	Hospital Pharmacy	15.17				
	Retail Pharmacy Chain	15.17				

Significant Level  $P$ -Value  $< 0.05$

A series of Kruskal-Wallis Tests were done to determine whether there is a significant difference in the respondents' perceptions of their inventory management systems across the three groups based on the type of pharmacy market. A nonparametric test like Kruskal-Wallis is considered more appropriate due to the limitations in the number of respondents per group.

The results showed that the groups do not significantly vary in terms of the three variables, namely, effectiveness [ $X^2(2) = .358$ ,  $p = .836$ ], challenges [ $X^2(2) = 1.554$ ,  $p = .460$ ], and benefits [ $X^2(2) = .106$ ,  $p = .948$ ]. This shows that based on the responses in this study, the type of pharmacy market does not sig-

nificantly affect the perceived effectiveness, challenges, and benefits of the inventory management systems. This finding is consistent with a study conducted in Ethiopia by Gelagay, Daniel & Hora, Assefa. (2018) who identified that market type doesn't significantly influence perceptions of inventory management systems. They suggest that effective inventory management might offer core benefits (reduced costs, improved stock control) regardless of market type. While challenges and benefits might be more related to the core functionalities of the system itself rather than the market position.

**Table 9.** Kruskal-Wallis Test Results of Perceptions of Inventory Management System across Groups based on Number of Years in Operation

Variable	Groups	Mean Rank	X2	df	p	Decision
Effectiveness	1-5 Years	10.13	3.418	3	.332	Accept Ho
	5-10 Years	18.27				
	More than 10 years	12.30				
	Less than a Year	16.20				
Challenges	1-5 Years	11.25	1.133	3	.769	Accept Ho
	5-10 Years	16.55				
	More than 10 years	15.70				
	Less than a Year	15.95				
Benefits	1-5 Years	11.13	4.015	3	.260	Accept Ho
	5-10 Years	17.59				
	More than 10 years	10.40				
	1-5 Years	17.50				

Significant Level P-Value <0.05

Another series of Kruskal-Wallis Tests was done to determine whether there is a significant difference in the respondents' perceptions of their inventory management systems across the four groups based on number of years in operation.

The table shows that the groups do not significantly differ in terms of the three variables, namely, effectiveness [ $X^2(3) = 3.418, p = .332$ ], challenges [ $X^2(3) = 1.133, p = .769$ ], and benefits [ $X^2(3) = 4.015, p = .260$ ]. This shows that based on the responses in this study, the pharmacies' number of years in operation also does not significantly affect their perceived effectiveness, challenges, and benefits brought by their inventory manage-

ment system. This rationale was supported by the study of Secretario and Naval (2021) where the length of operation and level of effectiveness of inventory management has no significant relationship unlike those variables that involve selling which has significant correlation with inventory management. Thus, years of operation does not influence the inventory management of pharmacies but their operation itself can bring impact on their inventory.

**Table 10.** Kruskal-Wallis Test Results of Perceptions of Inventory Management System across Groups based on the Educational Level of Owner or Pharmacist or Staff

Variable	Groups	Mean Rank	X2	df	p	Decision
Effectiveness	Licensed Pharmacist	17.13	1.610	2	.447	Accept Ho
	Bachelor's Degree	14.41				
	College Undergraduate	10.83				
Challenges	Licensed Pharmacist	15.00	.294	2	.863	Accept Ho
	Bachelor's Degree	16.59				
	College Undergraduate	14.17				
Benefits	Licensed Pharmacist	16.34	.333	2	.846	Accept Ho
	Bachelor's Degree	14.50				
	College Undergraduate	14.67				

Significant Level P-Value <0.05

A series of Kruskal-Wallis Tests were again done to determine whether there is a significant difference in the respondents' perceptions of their inventory management systems across the three groups based on the educational level of the owner or pharmacist or staff.

The results showed that based on the responses in this study, the educational level of the owner/pharmacist/staff does not significantly affect the perceived effectiveness, challenges, and benefits of the inventory management systems. It says that the educational level of the owner, pharmacist, or staff does not affect the pharmacy's inventory management system because they undergo proper training to do the inventory management

systems as well as seminars to give them additional knowledge to make them know what needs to be done. Several colleges or universities that offer pharmacy courses aim to provide a strong foundation in pharmaceutical sciences, pharmaceuticals, pharmaceutical chemistry, social and administrative pharmacy, and research.

**Table 11.** Kruskal-Wallis Test Results of Respondents' Perceived Financial Performance across Profile Groups

Variable	Groups	Mean Rank	X <sup>2</sup>	df	p	Decision
Type of pharmacy market	Botika ng Barangay	14.28	.987	2	.611	Accept Ho
	Hospital Pharmacy	18.58				
	Retail Pharmacy Chain	15.00				
Number of years in operation	Less than a Year	4.75	7.240	3	.065	Accept Ho
	1-5 Years	16.91				
	5-10 Years	18.50				
	More than 10 years	16.75				
Educational level of owner/pharmacist/staff	Licensed Pharmacist	17.97	3.528	2	.171	Accept Ho
	Bachelor's Degree	13.73				
	College Undergraduate	8.83				

Significant Level P-Value <0.05

Shown in this table are the Kruskal-Wallis Tests that were again conducted to determine whether there is a significant difference in the respondents' perceived financial performance when grouped according to profile.

Based on the results taken from the respondents, the pharmacies' firmographic profile does not influence their perceived financial performance. The study that Magno (2022) carried out on the pharmaceutical competition in the Philippines provided additional support for these results. The findings indicate that even though hospital pharmacies offer lower prices than retail pharmacies on average because of discounts from pharmaceutical manufacturers, the perceived financial performance of these pharmacy markets does not significantly differ from one another.

In light of this, Bates (2022) determined that healthcare professionals, particularly those in the workforce, should be equipped with the necessary knowledge and skills to address the public's health needs and deliver comprehensive pharmaceutical care. However, the owners', pharmacies', and staffs' perceived financial performance does not significantly differ based on their educational level (Rahem, Athiyah, Setiawan & Hermansyah, 2021). Furthermore, the study of Magno (2022) indicated that there is no significant difference between the pharmacies' perceived financial performance, despite the fact that their operating durations may have varied.

**Table 12.** Pearson Product-Moment Correlation Coefficient Table for the Inventory Management System (Effectiveness, Challenges, and Benefits) and Perceived Financial Performance

Variable	Statistical Treatment	Perceived Financial Performance
Effectiveness	Pearson Correlation	.457*
	Sig.	.011
	N	30
Challenges	Pearson Correlation	-.049
	Sig.	.797
	N	30
Benefits	Pearson Correlation	.487*
	Sig.	.006
	N	30

\*Correlation is significant at the 0.05 level (2-tailed)

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

Shown in the table are the Pearson product-moment correlation coefficients that were computed to determine the relationship between the respondents' perceived financial performance and each of the three variables of the inventory management system, namely, effectiveness, challenges, and benefits. The variable effectiveness is significant at the 0.05 level and the variable benefits is significant at the 0.01. Both variables used two-tailed tests in identify the correlations. According to Birkett (2023), one-tailed tests permit the potential of a one-way effect, and two-tailed tests check for the potential for both positive and negative effects.

Results show that there is a weak positive significant relationship between perceived financial performance and perceived effectiveness ( $r = .457$ ,  $N = 30$ ,  $p = .011$ ). This means that based on the data from the 30 respondents, as their perception of the effectiveness of inventory management system increases, their perception of financial performance also improves. This conclusion is supported by the significant findings of a study by Muchaendepi et al. (2019) found that a significant majority (93%) of respondents in their study agreed that inventory management practices positively impacted the financial performance of SMEs in the manufacturing sector. This suggests a strong correlation between effective inventory management and working capital management in SMEs.

Meanwhile, there is no significant relationship between perceived challenges and perceived financial performance ( $r = -.049$ ,  $N = 30$ ,  $p = .797$ ). Although the relationship is negative, and it makes sense that an increase in the challenges of a company negatively affects its financial performance, the computed  $p$ -value does not make this relationship conclusive. In congruence with Sumesh (2024), business challenges such as poor financial decisions as well as inadequate planning has the ability to lead the business into cash flow problems and prevent growth opportunities. Thus, minimizing challenges will result in maximizing financial performance of the business.

Lastly, another weak positive significant relationship was found to exist between perceived financial performance and perceived benefits of the inventory management system ( $r = .487$ ,  $N = 30$ ,  $p = .006$ ). This means that based on the data from the respondents, as the benefits of the system improve, their perceived financial performance also improves. The benefits of inventory management systems are essential to making a good profit in a pharmacy. According to Atnafu & Balda (2018), improved financial performance and a stronger competitive advantage can result from higher levels of inventory management practices.

## Conclusions

In this study, it is therefore concluded that despite Inventory Management System's effectiveness and benefits some challenges can still appear. This is proved by using mean and standard deviation whereby effectiveness and benefits were interpreted as very high, yet its challenges were high. However, it is perceivable that challenges arising from damage and theft are low therefore it can be concluded that most pharmacies' problem is mainly the inflow and outflow of their inventory. On the other hand, the perceived financial performance of the pharmacies is still high regardless of the existence of the challenges.

The researchers used the Kruskal-Wallis Test and determined that there is no significant difference between IMS' effectiveness, challenges, and benefits and the groups based on the type of pharmacy market. Therefore, the researchers concluded that type of pharmacy market does not influence the overall IMS of the pharmacy which made the null hypothesis be accepted. Furthermore, a similar test is conducted to test the significant difference between the three variables mentioned above and the number of years of operation. However, the result showed that these variables have no significant difference, thus, the null hypothesis was accepted.

The study also showed the existence of weak positive significant relationship between perceived financial performance and the effectiveness of IMS. Therefore, the researchers concluded that as the effectiveness of IMS increases, the perceived financial performance still increases. Thus, null hypothesis is rejected. The study also examined that there is no significant relationship between perceived financial performance and IMS' challenges. Thus, null hypothesis is accepted. Conclusively, the researchers also determined that there is a weak positive significant relationship between the benefits and perceived financial performance. Therefore, the null hypothesis is rejected.

## Recommendations

The study identifies numerous benefits of efficient inventory management systems, including enhanced storage area organization, increased adaptability to changing circumstances, improved planning accuracy, and reduced inventory costs. These

benefits not only boost operational efficiency but also positively impact customer satisfaction, sales, and profitability.

Since the study revealed that a lot of pharmacies are managed by individuals with different educational backgrounds, it is suggested that researchers could explore working together with specialists in pharmacy management, finance, and technology that can result in interdisciplinary solutions. This collaboration can give comprehensive strategies that identify challenges and improve the advantages of inventory management systems in pharmacies.

The researchers also recommend the following:

1. To conduct research to analyze the underlying factors contributing to the frequent receipt of damaged inventory at the pharmacy, aiming to identify root causes and develop effective mitigation strategies.
2. To investigate theft incidents involving pharmacy inventory through research, focusing on enhancing security measures and employee training to prevent future occurrences.
3. To compare studies to see how well different inventory management systems work in pharmacies. They could look at old-fashioned methods versus new, technology-based systems to see what each one does well and where they could improve. To fully understand how inventory management affects pharmacies in the long term, they could also conduct studies that observe pharmacies for a long period of time.
4. To implement advanced inventory management systems and practices tailored to their specific operational needs. Further investigation could explore additional factors influencing perceptions across different pharmacy market segments, given the lack of significant differences in this study.
5. For future researchers, to examine how pharmacies address and overcome these challenges, and whether specific strategies are more effective in maintaining financial stability. Longitudinal studies tracking changes in financial performance after implementing solutions could be valuable.

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## MARKETING STRATEGIES OF THE AUTOMOBILE DEALERS IN THE CITY OF BALIWAG, BULACAN: A COMPARATIVE STUDY

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### Abstract

This study showed the comparison of marketing strategies by two automobile dealers in Baliwag City, Bulacan, in the automotive industry, emphasizing client understanding and product specifications, respectively. Both dealerships prioritize effective communication, social media leverage, and comprehensive sales training to enhance customer service and brand awareness. Along the competitive landscape of DRT Highway, they compete by offering advanced technology with many safety features in products and attractive displays while stressing the importance of long-term relationship building. These include offering effective communication, investing in training programs for the sales agents' development, leveraging social media to boost brand awareness, and encouraging the sales agents to follow up with the clients effectively to improve the after-sales service. These strategies aim to build trust and positive client experiences. The researchers recommended that other automobile dealers and future researchers take time to read the content of this study, which highlights the impacts of marketing strategies on their business operations, and may use this guide in conducting different study.

**Keywords:** After-Sales Service, Automobile Dealers, Customer Service, Effective Communication, Marketing Strategies, and Leveraging Social Media

### Introduction

Germany and France pioneered automobile development in the late 1800s, but American mass production, led by Henry Ford, propelled the U.S. to dominance in the early 20th century. The "Big Three" emerged by the 1920s. By 1980, Japan surpassed Europe as the leading automaker, transforming the industry into a global enterprise. The invention of the automobile revo-

lutionized travel, replacing long journeys on foot with faster, simpler, and more reliable transportation.

Figuring out how to draw in customers in the automotive industry, identifying the most sought-after cars, staying on top of current market trends, predicting future customer preferences, and selecting the best cars for display or design in the dealership are all important aspects that may require attention and consideration.

Marketing strategies are essential to the success of automobile dealers. Dealerships must use successful techniques to draw in and keep customers in light of the industry's intense competition and constantly changing consumer preferences. According to Neil, M., Kimberly W., Hui, F., & Simon, C., (2019). Marketing strategy is crucial in strategic marketing, addressing key challenges. This discussion delves into car dealerships' diverse techniques for enhancing brand visibility, engaging potential customers, and driving sales. From traditional advertising to modern digital methods like social media and online platforms, the automotive sector employs a range of strategies in today's dynamic market.

The research gap in this study stems from businesses predominantly relying on the original four Ps marketing concept of product, price, place, and promotion introduced by American Marketing professor Edmund Jerome McCarthy in 1960 and first published his book *Basic Marketing: A Managerial Approach*. Many companies are unaware of the updated seven marketing strategies. The researchers also found that the review-related literature provided in this study did not mention the seven marketing strategies used by businesses in their operations. Also, there has been a lack of extensive research on comparing the marketing strategies of automobile dealerships in the Philippines.

In continuation to the research gap of the study during the late '70s, marketers realized that the marketing strategies needed to be updated. Nowadays, businesses should apply the trend of extended marketing strategies that have become 7 Ps: product, price, place, promotion, people, process, and physical evidence. It is important for businesses to understand customer preferences, market trends, and adaptation to changing consumer behaviors.

## Review of Related Literature

*Impact of marketing Mix in the Automobile sector with special reference to Passenger Car Segment: A Comparative Study among Foreign Brands and Domestic Brands*

As reported by Sridevi, M., & Manjunath, H. (2022). One of the biggest markets in the world is the automobile sector. Automobiles are considered to be a need for everyone. India has a sizable market for autos, but there is also a strong competition in the market. The main goal of this paper is to compare Indian and foreign automakers in terms of a variety of factors, including advertising costs and strategies, brand positioning, market share, price, marketing tactics, and brand value. Maruti Suzuki, TATA Motors, KIA, and MG were chosen as the four firms based on their earnings after tax and market share. As contrary to KIA & MG, which were made elsewhere, Maruti Suzuki and TATA Motors were based in India and produced cars.

*Strategies for Used Car Dealership Owners to Sustain Business in a Competitive Environment*

As stated by Jude Thaddeus, S. (2018). This multi-case study aimed to investigate the methods used by car dealership owners and managers to stay profitable and maintain operations for over five years. The study involved ten individuals from small used vehicle dealerships, including five owners and five managers. Semi-structured interviews were conducted in Colorado, and the findings revealed three themes: customer care, aggressive marketing, and business knowledge. Thematic analysis revealed that used vehicle dealership managers and owners needed to utilize these methods to compete in the market and maintain growth. The study could lead to more small businesses succeeding, creating employment opportunities and job creation, and positively impacting the economic empowerment of other businesses and communities.

*Predicting Automotive Sales using Pre-Purchase Online Search Data*

According to Philipp, W., Tobias, W., & Achim K. (2019). The study analyzed customer service strategy and marketing performance of automobile firms in South-South, Nigeria,

focusing on 132 customers with a 15-year buying relationship. The results showed that customer service significantly influenced the performance metrics of automobile dealers. Proper implementation and improvement of marketing strategies enhance customer satisfaction, loyalty, retention, patronage, and long-term financial performance. The study concluded that marketing strategies play a crucial role in the performance of automobile dealers and should be employed as a broad commercial logic to meet customer needs and gain sustainable competitive advantage in the target market. It recommends that automobile dealers leverage customer service strategy knowledge to shape offerings, reap customer lifetime value, and achieve competitive advantage for the organization.

#### *Customer Service Strategies and Marketing Performance of Automobile Firms in South/South Nigeria*

As conducted by Owonte H., & Joseph U. (2022). The study analyzed customer service strategy and marketing performance of automobile firms in South-South, Nigeria, focusing on 132 customers with a 15-year buying relationship. The results showed that customer service significantly influenced the performance metrics of automobile dealers. Proper implementation and improvement of marketing strategies enhance customer satisfaction, loyalty, retention, patronage, and long-term financial performance. The study concluded that marketing strategies play a crucial role in the performance of automobile dealers and should be employed as a broad commercial logic to meet customer needs and gain sustainable competitive advantage in the target market. It recommends that automobile dealers leverage customer service strategy knowledge to shape offerings, reap customer lifetime value, and achieve competitive advantage for the organization.

#### *An Analytical Study of Marketing strategy of Mahindra Automobiles*

As stated by Saraswat, S., Singh, S., & Choudhary, S. (2023). The research paper delves into an analytical analysis of Mahindra automobiles' marketing strategy within the Indian car segment. Marketing plays a pivotal role in continually enhancing products to elevate customer satisfaction. Given intensifying competition and evolving customer preferences, marketing products, services, and information has become increasingly challeng-

ing. This environment compels companies to innovatively approach various aspects including promotion, pricing, sales, advertising, distribution, and brand building. The research focuses on understanding Mahindra's primary marketing strategies, reflecting the company's response to changing customer and market demands while aiming for creativity and effectiveness across their operations.

#### *Marketing Strategies for Automotive Dealership in Grenada*

As mentioned by Hall K, (2022). This study explores the challenges faced by certain executive-level automotive dealership managers in Grenada regarding their marketing strategies for selling new U.S. and Japanese vehicles. These managers are worried about the potential negative impact of marketing strategies on their dealership's profitability. The research, conducted using a qualitative multiple-case study approach, focuses on four managers in the southern region of Grenada. Drawing from the segmentation, targeting, and positioning model, the study identifies successful marketing strategies, including customer retention, product branding, media promotional strategies, and after-sales service. The findings emphasize the importance of two-way communication with customers for maintaining strong relationships. The study's positive implications involve the potential for sustainable marketing strategies to positively impact employees, families, and communities by enhancing satisfaction and overall well-being.

#### *Recent Trends in Automotive Industry*

As indicated by Gupta M., et al., (2019). Technological progress has significantly transformed contemporary life. Innovations like automatic braking systems, adaptive and cooperative cruise control, self-driving cars, and AI-powered vehicles have greatly enhanced road safety and adherence to traffic regulations, consequently boosting life expectancy. Additionally, electric and solar rechargeable batteries contribute to the preservation of fossil fuels. These emerging technologies notably assist drivers by ensuring appropriate vehicle spacing to prevent collisions.

### *Factors Influencing Watching and Purchase Intentions on Live Streaming Platforms: From a 7Ps Marketing Mix Perspective*

Based on Ho, C., Liu, Y., & Chen, M. (2022). Previous studies looked into how live broadcasting affects consumers' intent to buy. However, no study has looked into how the service marketing mix (7Ps) affects customer purchase behavior from the seller's perspective. By watching broadcasters' programs, the current study aims to shed insight into the connections between the 7Ps and consumers' purchasing intentions. Data gathered from 330 customers (including 237 shoppers for garments and 93 customers for seafood) through Facebook live shopping platforms is used to design and evaluate an integrative marketing-oriented approach. According to the study's findings, physical evidence, positioning, and promotion all have a favorable impact on consumers' desire to make a purchase.

### *Impact of New 5 Year Automobile Policy (2016-21) on the Profitability of Major Players in the Automobile Industry of Pakistan*

As stated by Mustafa, S., Begum, R., Nisar, S. K., & Osama, A. (2018). This study compares the old vehicle policy announced by the Government of Pakistan with the new five-year policy announced by the Economic Coordination Committee (ECC) in March 2016 for years 2016 to 2021. The main goal of this essay is to identify the essential elements of the new auto policy and their effects on the financial performance of the major companies in Pakistan's automobile sector. The main goals of this policy are to increase volume with better quality, attract investors, foster intense competition, reduce costs, advance technology, and satisfy all stakeholders through a balance between tariffs and growth, customer satisfaction, and removing existing car manufacturers' monopolies.

### *Selected Problems of the Automotive Industry—Material and Economic Risk*

As reported by Richert, M., & Dudek, M. (2023). This study provides an in-depth, summary of publications, studies, and sources on the automotive industry's transition to electric and other zero-emission vehicles. It explores the technological and economic impacts of the automobile sector's transition to zero-emission vehicles. Despite great de-emission parameters, the pro-

duction of electric cars does not have a zero-carbon footprint. Material supply chains for the manufacturing of batteries for electric vehicles face substantial risks due to factors such as a lack of diversity and limited flexibility. The dominant supplier of rare elements for batteries is China. The article analyzes the impact of prices on the demand for electric cars and compares them to internal combustion cars.

### *A Systematic Literature Review on Customer Retention in the Automobile or Automotive Industry*

As mentioned in A Systematic Literature Review on Customer Retention in The Automobile or Automotive Industry (2023). The automotive industry competes fiercely in increasing sales volume between vehicle brands, environmentally friendly vehicles, and social media marketing. Vehicle distributors are giving extra attention to the after-sales business, which proved during the COVID-19 epidemic to be a crisis-proof industry as a result of the declining trend in profit margins from new car sales. The automobile industry needs after-sales support since keeping customers with the same car dealers helps the business succeed and encourages them to buy more vehicles. This literature review indicates which nations are most active in conducting research studies, as well as which institutions and companies are most productive and generous with their sponsorship funds.

### *Measuring the Quality of Car Dealership Services from the Point of View of Customers by Applying to the Automotive Sector in the Kingdom of Saudi Arabia*

As stated by Abdelgawad, M., Ghosh, A., & Shamsy, M. (2022). The study's objective was to assess customer satisfaction with car dealership services from the perspective of customers. It did this by applying to the Saudi Arabian automotive industry to raise the standard for both car companies' and agencies' services and to increase the likelihood that results in improving customer service. Low service quality is a selling problem, not a brand problem. As new car buyers' expectations for service quality rise, so does the pressure on automakers and dealerships to deliver high-quality goods and services. After-sales services and repairs at car dealerships have received much criticism from customers compared to their other purchasing experiences.

### *The COVID-19 Impact on Supply Chains, Focusing on the Automotive Segment during the Second and Third Wave of the Pandemic*

According to Pató, B. S. G., Herczeg, M., & Csiszárík-Kocsir, Á. (2022). The automobile industry has seen some significant changes recently, and the COVID-19 pandemic has created several difficulties for global automotive supply networks. The virus had several major impacts on the global economy, forcing the adoption of new risk management strategies by businesses and international supply chains. Major automobile suppliers transferred their production facilities to the Philippines region, and the lockdowns severely hurt the leading semiconductor segments. Due to the rapid advancement of technology, electrification of the automotive sector and the proliferation of electric vehicles are becoming increasingly crucial. Companies in this industry forced to diversify their supply chain operations as result of the economic shock brought on by COVID-19 to remain competitive, reduce supply chain-related risks, and begin recovery efforts.

### *Influence of social media on vehicle purchasing decisions: An empirical study on automobile industry*

Based on M, Darshan, (2018). The business also heavily utilizes the internet and online resources. The rise of social media has changed the way people interact and communicate. The persistent growth of online and electronic commerce is highly attributed to the growing influence of the internet and social media. Along with the growth of online marketing strategies, there is an escalation of dependency on people which determines their tastes and purchasing decisions. The current study intended to evaluate the impact of the Internet and social media platforms on automobile purchasing behavior in this environment. The study suggests that optimizing online and internet marketing methods in the car business is critical.

## Theoretical Framework

According to **Bernard H. Booms and Mary J. Bitner (1981)**, who improved the original four marketing strategies adding three elements and become extended marketing strategies turned into 7Ps. It can help companies create a more comprehensive and customer-focused approach to meet their business goals, leading to more effective marketing campaigns and improved customer satisfaction.



**Figure 1.** Marketing Mix 7P's

Figure 1 represents the seven marketing strategies that some in the Automobile Industry might use. It also expounds on the idea and technological innovation brought about by the "Internet" as a supplement in automobile marketing management, which is a big help to traditional physical selling nowadays.

## PRODUCT

This involves decisions related to the design, features, quality, and branding of the product or service offered to the market.

## PRICE

The pricing of the services or products ought to deliver a value-for-money experience to users. Thus, this is an essential tactic that should represent the value to customers and allow the company to compete in a competitive and dynamic market.

## PLACE

The accessibility of the products or amenities offered by the company ought to be readily available to the customer. The distribution ought to be prompt, like digital shopping. For instance, the company should increase the number of assembling plants for its products around the world to fulfill the increasing demand for automobile products.

## PROMOTION

The marketing campaigns comprise sales promotion, public relations, advertising, and social media marketing. Automobile Dealers organization that concentrates on the marketing of its products on a global platform by using modernized technologies.

## PEOPLE

It refers to the people in the organization who connect with the customers - both directly and indirectly - as an important marketing decision whether physical or online marketing. Great products and businesses require employees to participate in both digital and physical marketing, as well as personnel in direct contact with customers.

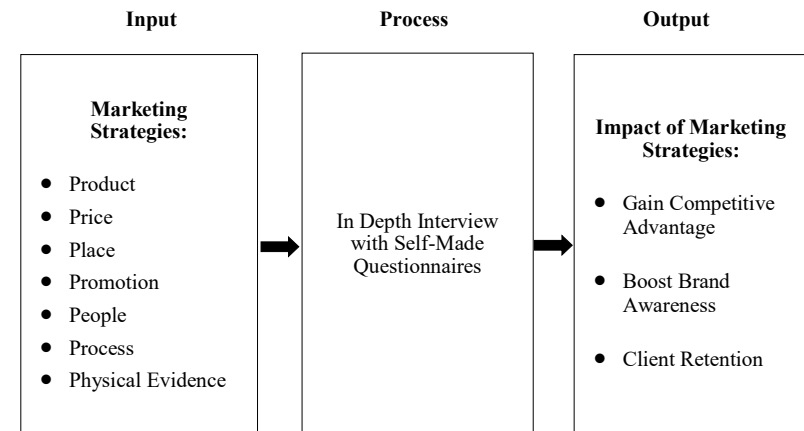
## PROCESS

The process describes the necessary procedures and its optimization of delivering physical or online products and core experiences. Tracking processes and overall system performance enables firms to detect key errors before they occur or, at the very least, detect them very early before any significant failures occur.

## PHYSICAL EVIDENCE

It pertains to several aspects of the service experience, including facilities, interior design, livery, and post-purchase artifacts (souvenirs). Online brand awareness across multiple channels is an excellent example of online evidence. The number of followers, likes, and other social engagement indicators, for example, can show how well these platforms enhance customer experiences.

### Conceptual Framework



*Figure 2. Research Paradigm*

Figure 2 shows the first frame containing the input of the Marketing Strategies as to product, price, place, promotion, people, process, and physical evidence. Lastly, is the output, which impacts automobile dealers to gain a competitive advantage, boost brand awareness, and client retention.

### Statement of the Problem

Since the automotive industry has seen significant advancements in technology in the past few decades, and this trend is expected to continue. This study aims to determine the marketing strategies used by two automobile dealers in Baliwag City, Bulacan along DRT Highway. Specifically, this study sought to answer the following questions:

1. How may the respondents describe their marketing strategies in terms of:
  - 1.1 Product,
  - 1.2 Price,
  - 1.3 Place,
  - 1.4 Promotion,
  - 1.5 People,
  - 1.6 Process, and
  - 1.7 Physical Evidence?
2. How may the respondents describe the impact of their marketing strategies in terms of:
  - 2.1 Gain Competitive Advantage,
  - 2.2 Boost Brand Awareness, and
  - 2.3 Client Retention?

### Scope and Limitation

This study focused on analyzing the marketing strategies used by two automobile dealers in Baliwag City, Bulacan along DRT Highway. This study is not focused on marketing-related sales as there is no data to compare. Meaning, this study is not focused on the data related to sales as this data is not available to analyze.

The aim of this study follows how effectively automobile dealers used marketing strategies to survive in the market. This study also focused on the needs and concerns of the customers. This study does not rely on how many cars the automobile dealers sell. However, this study focused on how businesses can give people satisfaction with the product and after-sales service.

Another consideration that is limited to the scope of the study, more detailed elements that influence engine performance and condition, such as the components of the engine and unique features added by automakers, was not covered by this study.

## Method

### Research Design

This study used qualitative study with the use of in-depth interviews method with key personnel from various automobile dealership to gain insight into their marketing strategies. An in-depth interview is a qualitative research technique that is used to conduct detailed interviews with a small number of participants. In contrast to other types of qualitative research, researchers who use an in-depth interviewing approach spend a significant amount of time with each participant in a conversational format. (Rutledge, P., & Hogg, J. L. 2020)

### Research Participants and Sampling Procedure

The population of the study focused on two sales managers from automobile dealers in Baliwag City, Bulacan, including Honda and Ford. The researchers believed that the research participants with extensive experience in sales, marketing, and trading are the best fit for the researchers to study the comparison of marketing strategies used by automobile dealers, as they are the most suitable respondents to provide the necessary data for the research question.

The researchers used purposive sampling for qualitative research, focusing on a specific subset of a sample. This strategy is suitable for small or limited data sources due to the study's design and objectives. Each sales manager from two automobile dealers were participated as respondents, ensuring their participation aligns with the study's objectives.

Participant	Position
A - Honda	Sales Manager
B - Ford	Sales Manager

### Research Instrument

The researchers utilized a self-made questionnaire to collect data for this study. The researchers decided to use in-depth interview questions, as a process in gathering and collecting data.

The questions prepared and developed by the researchers have one section: it is about the study comparing marketing strategies of automobile dealerships, which involves semi-structured questions that allow participants to express their insights and experiences. The researchers used a recorder on a mobile phone and take notes on pieces of paper, to complete the data needed for this study.

*Self-Made Interview Questions for (2) Sales Managers of Automobile Dealers*

1. What are your marketing strategies in terms of product? Which is one of the extended seven marketing Ps, how can you make sure that your products satisfy the needs and wants of your potential client?
2. Can you share your marketing strategies regarding the price of your products to measure how effectively can help to accomplish goals or quotas for the company?
3. How do you ensure efficient and timely distribution of your products accessible to your clients?
4. Can you share with us your successful campaigns in which the promotion was critical to raising awareness in your target market and helping to improve company sales?
5. How do you implement your marketing strategies in terms of people who communicates and delivers the products and services to potential clients?
6. In terms of Process, how do you operate and guarantee the services with efficiency and effectiveness to clients?
7. What are your marketing strategies that make your dealership differ from competitors in terms of physical evidence and to improve overall client experience?
8. What are the impacts of your marketing strategies it can be more than one P's to gain a competitive advantage in the market?
9. What is the impact of your marketing strategies to boost your brand awareness to potential clients?

10. How effective are your marketing strategies to retain clients by having after-sales services?

## **Data Analysis**

The researchers utilized thematic analysis to examine the data gathered. It is a qualitative data analysis method that involves reading through a data set (such as transcripts from in-depth interviews or focus groups) and identifying patterns in meaning across the data (Braun& Clarke,2006).

The researchers first transcribe and translate the data that were acquired through interviews. The data that were gathered through an interview provided related information about the marketing strategies that automobile dealers used and how they impacted their business operations. The researchers then study and review the transcriptions to have a better understanding of the data. Open-ended questions are questions that do not provide participants with a predetermined set of answer choices, instead of allowing the participants to respond to their own words (Allen,2017).

To reflect on the data that were gathered, from the interview, the researchers utilized the Thematic Analysis of Virginia Braun and Victoria Clarke, who were both psychologists. This so-called thematic analysis can be done in a variety of ways, but the six-step procedure is the most popular method. This method includes familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up. It is the best idea to research where you're trying to find out something about people's vision, perspective, understanding, or advantage from a set of qualitative data – for example, transcriptions of an interview, profiles in social media, or responses from a survey (Caulfield, 2019).

**Familiarization** - The first step is to familiarize the data. Before the researchers begin evaluating individual items, it is necessary to have a full synopsis of all the data gathered.

**Coding** - Next is to code the data. In qualitative research, coding is “how you define what the data you are analyzing are about” (Gibbs, 2007). Researchers will utilize descriptive coding.

It is a first cycle method of coding that involves reading through qualitative data, and coding passages according to topic (Saldaña, 2009).

**Generating themes** - At this stage, the researchers decided to discard some of the codes that were too indefinite or irrelevant.

**Reviewing themes** - The researchers have to make sure that representations of data are beneficial and reliable to the topic.

**Defining and naming themes** - It entails defining exactly what the researchers mean by each topic and determining how it improves understanding of the data.

**Writing up** - Lastly, is to write up the researcher's analysis of the data. It requires an introduction to establish the research question, aims, and approach (Caulfield, 2019). The researchers will use open-ended questions.

### **Data Gathering Procedure**

The researchers provided a letter with a consent form for the respondents before they participated in the study. It is important to provide consent for the respondents to better understand what they will be participating in and also for the researchers to gain the research participants' trust. The researchers assured that the data privacy of the respondents is protected while collecting, analyzing, and reporting the data gathered with this consent form.

This letter and consent form consisted of research objectives and asked for the permission of the respondents to participate in the study. Moreover, informed consent also attests that the research participants are voluntarily willing to participate in the study and are not forced to participate.

The research participants received the consent personally, and the researchers explained and answered all their concerns. They had the freedom to choose their own time to participate in the study within their company, which was conducted through face-to-face interviews.

The researchers conducted an in-depth interview containing several questions. To easily analyze the data gathered and to get brief and necessary data from the participants. Also, it involves a semi-structured interview for the research participants to fully furnish their answers. This interview also gave the researchers clear, organized, and in-depth data that are needed for this study. The interview was recorded; however, the names were disclosed for their privacy and confidentiality. The researchers made sure that the research participants were treated with honesty, kindness, and respect which ensured that this study would be ethical.

### **Validation and Reliability Testing**

The comparative study underwent validation through content validity assessments, expert feedbacks from college faculty, and data analysis to confirm the adequacy of the researchers' research methodology. Therefore, was done through an in-depth interview with the respondents using note-taking of their answers and a recorder for accurate transcription of marketing strategies of two automobile dealers. Three experts in the related field contributed to the validity and reliability of the test: (2) the college professors and (1) the college dean.

### **Results and Discussions**

This chapter includes results and a discussion of the responses gathered from two automobile dealers. It has been accomplished by conducting an in-depth interview with the participants. Moreover, the researchers utilized Braun and Clarke's thematic analysis as a guide to process and analyze the marketing strategies of automobile dealers.

To proceed, the researchers transcribed the recorded interview. The researchers familiarized themselves with the data collected and analyzed them to formulate codes. The codes were created through the responses of the participants. After coding, the researchers were able to group them accordingly. Then, the grouped codes were able to generate themes, and the codes were used as sub-themes.

**Table 1.** Marketing Strategies in terms of Product

<b>HONDA</b> Alias Tony	<p>We first identify the client's needs to understand what they truly want. From there, we provide an offer based on their identified needs. If we do not identify their needs first, it becomes challenging. Because during the conversation, what we offer might not be what they truly want. Right from the start, we prioritize asking about their needs. After that, we inquire about the type of transaction, whether cash, in-house financing or if they prefer to negotiate directly with the bank. These are the initial steps, and once we have gathered the necessary information, we start with the transaction.</p>
<b>FORD</b> Alias AGENTX44	<p>For marketing strategies, the first thing we have to do is ensure that we know all the specifications of our products. So that we can explain properly to the client that's the first thing. The second aspect is that we need to provide all the details to the client. Just in case, we also need to offer a detailed comparison between our dealership and other brands.</p>

According to Tony, they make sure that they understand what are the client's needs first before suggesting something for them to know what to offer. However, AgentX44 said they must know all their product specifications to ensure they give detailed information and offer the client detailed comparisons between their dealership and other brands.

Based on Swift, J. K., Callahan, J. L., & Vollmer, B. M. (2010). While client preferences are integral to evidence-based practice, their impact on treatment outcomes remains uncertain, prompting a meta-analysis of 35 studies on adult clients to investigate this. The authors also explored the correlation between consumer product involvement and knowledge, treating product and knowledge types as moderating variables to provide deeper insights (Moon, J. B., 2003).

**Table 2.** Marketing Strategies in terms of Price

<b>HONDA</b> Alias Tony	<p>The quota per SC means per sales consultant, so the quota here is a minimum of 2 units. Each SC needs to meet this desired quota every month. The sales consultant should aim to achieve two units monthly to ensure they don't fall short by targeting just one unit at a time.</p>
<b>FORD</b> Alias AGENTX44	<p>Okay, strategies for the price lists? First, we need to give the best discounts to the client. Because we have many competitors, we need to match or surpass them. So, we can have a good client, as we face tough competition from companies like Mitsubishi, Toyota, and Ford. Offering them a generous discount might be a good approach.</p>

As per Tony, their company prioritizes giving quotas to sales consultants to achieve two units sold every month. Nevertheless, AgentX44 stated that they must offer the best discounts to the clients to secure the transaction as they compete with their competitors such as Mitsubishi and Toyota.

According to Chung, D. J., et al (2020) this study explores the multifaceted impacts of quota frequency on sales force performance, developing a theory regarding salespeople's behavior in response to the duration of sales quota cycles. Additionally, we address pricing dynamics in markets with a dominant price-leading brand, proposing an optimal price rule estimation method based on sales targets and demand forecasts (Roy, A., et al. 1994).

**Table 3.** Marketing Strategies in terms of Place

<b>HONDA</b> Alias Tony	The bank will have some questions for him/her for CI. There's also a bank that will go directly to the house to check if the address is accurate. The bank will then evaluate it, and once it's approved, the credit advice will be released, and that's when the process begins. The client will provide the reservation for the requirements. After that, within a few days, the unit will be released. Sometimes, our challenge is that clients are just inquiring. Other times, during the transaction, we have clients who seem to be shopping around. Sometimes, it doesn't push through because there are various factors, especially when there's a lack of budget. So, when they realize that they are short of budget, they will not push the transaction.
<b>FORD</b> Alias AGENTX44	We need to put up displays first because most of them need to see the unit first, right? What you see is what you get. For example, we have displays here, and at the back, we have displays. This way, they can distinguish which brand the buyer prefers by seeing them one by one.

Table 3 shows that Tony mentioned that for them to be efficient, they involve the banks to verify clients' backgrounds, and once approved by the banks, they will process the unit within a few days. Whereas AgentX44 focuses on displaying products to allow their prospects to choose what car they prefer. Their strategies are to aim to make products accessible to clients, facilitating the decision-making process and potentially expediting transactions.

As per Arasa, R. (2015). Know your customer compliance necessitates the compilation of auditable proof of due diligence operations, in addition to client identification. There is necessity for financial institutions to validate that their customers are not or have not been involved in illegal activities such as fraud, money laundering or organized crime in order to meet KYC conformity requirements. Also, according to Azenkot, S., Hanley, M., & Baker, C. M. (2021). Some technology companies have made significant strides towards the accessibility of their products. Most consumer-facing technology products still pose access barriers to people with disabilities. Prior research has established that accessibility expertise is limited to a small number of practitioners in companies, but we do not know how these practitioners can affect change across a large organization.