INFORMATION SYSTEM DEVELOPMENT PLAN FOR ROSE PHARMACY INC GAISANO GRAND MALL

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ABSTRACT
This research aims to explain in detail the development plan implementing the Information System on Rose Pharmacy Inc. The company is one of the Philippines ' top pharmaceutical retailers, with over 300 branches in strategic locations all over the country, providing the customers with easy access to quality health and beauty products. This study will give information and background of the business and the business owner or the person in charge of the company. This research will provide information and background on the company as well as the business owner or person in charge of the company. By interviewing the owner or the person in charge, this research will provide and state an in-depth analysis of the business process and problems they have encountered in the industry. This study will propose an information system that will meet or assist the needs of the business and solve the current problems. Also, provide an IT Infrastructure plan to assist with the business workflow and management, which could lead to the development of excellent services and opportunities for the company.

Keywords: Customer intelligence, implement information system, business process and management, solve problems.

INTRODUCTION
1.1 Background of the Company
According to Rose Pharmacy Inc., established in 1952 in Cebu City, Rose Pharmacy is one of the Philippines' top pharmaceutical retailers with over 264 branches in strategic locations all over the country, providing easy access to quality and affordable medicines for its numerous customers.

Rose Pharmacy recently joined forces with Robinsons Retail Holding Inc. (RRHI), the second-largest retailer in the country, in October 2020. Committed to offering the best health and beauty shopping experience to customers with the unique touch of passionate care, Rose Pharmacy continues to expand its services beyond conventional limits - serving customers at the comfort of their own homes with RosExpress Delivery, fulfilling health and beauty need across the country with Rose Pharmacy Online Store's nationwide delivery, and providing round the clock service with 24-hour stores.

With a strong focus on bringing value to customers, Rose Pharmacy has launched Rose Pharmacy Generics, ensuring high-quality prescription and over-the-counter medicines are made widely available for every day affordable prices. Rose Pharmacy's monthly Hot Deals, SuperSavers, and Buy More Save More promotions

and special offers further provide excellent customer value both in-store and online. In addition, the guardian line personal care products bring gentle, quality care for every member of the family at a consistently low cost as well. The owner of a pharmacy wanted to make sure that his clients had easy access to high-quality, low-cost medications. The firm provides a variety of items such as medications, anti-infectives, health and beauty products, and personal care products, allowing it to provide its clients with not only fast and efficient computerized service, but also accurate accounting and inventory monitoring

1.2 Current Routines and Business Processes
1.2.1 Current Routines
The daily routine of a person in charge is cleaning before opening the store. Checking records every day and having an inventory every month checking on the product needs to be filled up. They also ensure that the product is delivered to the customer. The current routine of Rose Pharmacy Inc. is shown in Table 1.

Table 1. Event Tables of Rose Pharmacy Inc. Gaisano Grand Mall

Start Time	End Time	Task	Duration
8:00AM	8:30 AM	Preparation	30 Minutes
8:30AM	12:00PM	Working Time	3 Hours & 30 Minutes
12:00PM	12:30PM	Lunch Break	30 Minutes
12:30PM	8:00PM	Resume Work	7 Hours & 30 Minutes
8:00PM	8:30PM	Closing	30 Minutes

1.2 Business Process
It is owned and operated by a family, and the buying process allows customers to select what they want to purchase while being guided by the person in charge. They keep track of inventory, sales, and deliveries, and they order from their suppliers every month.

1.3 Existing Technologies
They don't have existing technologies in place to meet customer demands

1.4 Problem Found
- **Few buyers and Few stocks.** As we learned from the interview, their supply is limited, and consumers are hard to come by.
- **Maintenance.** The store is in disarray due to poor maintenance and insufficient resources.
- **Sales Rating.** Based on our observation, the store is standing apart from the competitors and doesn't lend information technology.
- **Inconsistency.** As we observed, the store can't provide the customer's needs, and its supplies aren't complete. It harms the store by lowering profits from new and returning customers who are dissatisfied with their experiences.

1.5 Goal and Objectives
Researcher's aims to:
General Objective
The researchers aim to:
Propose an IT infrastructure for their efficient scheduling and attendance process, Attendance Systems (AS) and Scheduling Systems (SS) to aid their scheduling, attendance process, and effective working process.

Specific Objectives:
The specific objective of this study is to enhance the business process and routines of the store. The researcher aims to:
- To give the owners exact data regarding their scheduling and attendance through the aid of IT infrastructure and the systems.
- To provide solutions and information by using the IT infrastructures.

1.6   Organizational Structure

Figure 1: Organizational Structure of Rose Pharmacy Inc. Gaisano Grand Mall
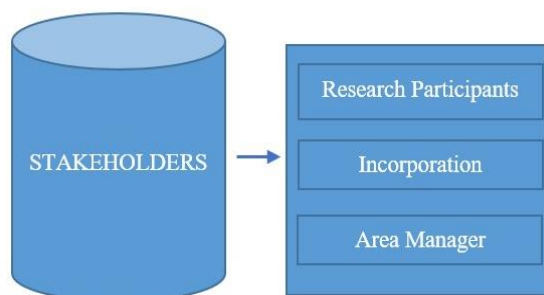
1.7 Stakeholders

Figure 2: Stakeholders of Rose Pharmacy Inc. Gaisano Grand Mall

PROPOSED INFORMATION SYSTEMS

The researcher proposed Attendance Systems and Scheduling System. This Information system can assist the business' performance; develop, establish, grow and expand.

1.3 Name of Information System

Most of the other companies are using Attendance Systems and the scheduling system; finding the appropriate plan for the business is what you need to consider first. Since many methods already exist, the attendance System will track your employee hours. It is a system you will use to document your employees' time when they began, and the time they take off. In addition, it enables you to monitor your employees' late arrivals and working hours, early departures, time taken on breaks, and absenteeism.

- **Customer Intelligence (CI) -** is a type of Customer Relationship Management (CRM) that focuses on the collecting of customer information to gain insights into behavior. Companies may use Customer Intelligence methods to collect and analyze data to uncover customers' preferences, motivations, patterns, wants, and wants, and then build their strategy on that information to provide a better customer experience [2]. Furthermore, customer intelligence offering provides companies with strategic customer analytics, customer intelligence, and customer experience management solutions. We assist companies in obtaining a single view of their customers, receiving insight into customer characteristics and behavior, and executing relationship-building programs that effectively reach their customer base [3].

- **Implement Info System-** is the process of: defining how the information system should be built and operational and used, ensuring that the information system meets quality standard [4].
- **Business Process and Management**- an event-driven, end-to-end processing path that starts with a customer request and ends with a customer outcome. Departmental and even organizational boundaries were often overcome in business processes [5]. Each stakeholder performs a specific task they are specialized in to achieve a concrete goal. These steps are often repeated many times by multiple users in a standardized and optimized way [6]. Management can be defined as the process of administering and controlling the affairs of the organization, irrespective of its nature, type, structure and size. It is an act of creating and maintaining such a business environment wherein the members of the organization can work together, and achieve business objectives efficiently and effectively [7].
- **Attendance System**- keeps track of your employee hours. It is the system you use to document the time your employees work and the time they take off. Attendance Management can be done by recording employee hours on paper, using spreadsheets, punching time cards, or using online attendance software for your company [8].

1.3.1 Review of Related Study

 Customer Intelligence (CI) has never been more important to your decision-making process in an era where customers know exactly what they want. This article will describe what customer intelligence is and why you should include it into your business processes [9]. Listening to each customer, embracing their requirements, and using that data to respond effect on your current job and any future job opportunities [10]. to them in a timely fashion is what customer intelligence is about. This post describes seven effective ways to improve your Customer Intelligence (CI)capability by analyzing your customer data in the context of millions of unique customer journeys using customer journey analytics [11]. Your customers are your company's lifeblood. Without their approval, your business will not be able to grow, which is why customer service is so important. People are becoming more vocal about their experiences with businesses — whether good or bad – now more than ever, thanks to the internet and social media [12]. In Attendance System, maintaining attendance is important as an employee as well as your standing with your employer. Being there on time improves your work credibility and history. If you are consistently absent or tardy, it may have an effect on your current job and any future job opportunities [13].

1.3.2 System Functionality

Use to track when employees start to work and to stop.
- Monitors their employees' working hours and late arrivals.
- It is easier to check the attendance
- It helps the company to monitor their employees
- Build a good personality of being punctual.
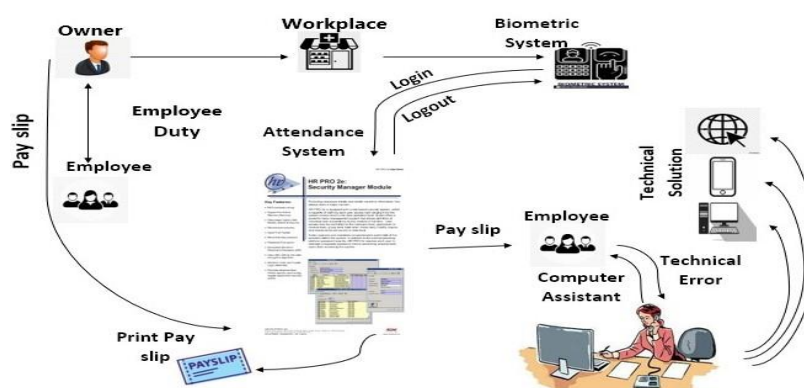
1.3.3 System Architecture

Figure 3. System Architecture of Rose Pharmacy Inc. Gaisano Grand Mall

Cost Structure

Table 2. Cost Structure

Cost Description	Cost
Operational Cost	₱5,430,000.75
Maintenance Cost	₱2,715,000.375
Total Cost:	₱ 8,145,001.125

PROPOSED IT INFRASTRUCTURE AND PEOPLEWARE
3.1   Proposed Computer Hardware

We live in the twenty-first century, and technology serves a purpose nowadays. We're working to increase efficiency and speed, so we'll need a fast-paced working processor to keep on top of all the data, files, or other things that need to be saved.

Computer Hardware	Specification	Unit Cost	Quantity	Total Cost
Processor	AMD Athlon 240GE Integrated Graphics Radeon Vega 3 CPU Core 2 CPU Threads 4 CPU Clock Rate 3500MHz Maximum Supported Memory 64GG MSI A320M-A Pro Max Motherboard Core Boost, DDR4 Boost, Turbo M.2, USB 3.2 Gen1 HyperX Fury DDR4 Total Capacity: 8GB (2x4GB) Memory Profile: 2666MHz, 16-18-18, 1.2V Part Number: HX426C16FB3K2/8	₱10,000	5	₱50,000
Motherboard	HP Desk Jet Ink Advantage 3775 All-in-One Measures 403 x 451 x 264 mm Weight 2.33kg Print Resolution 4800 x 1200 dpi	₱2,555	5	₱12,775
RAM	Image Specification ISO 19794-4:2011 Annex B1 Minimum Resolution >=500 native DPI. Higher densities are preferred. Greyscale Density 8 bits (256 grey levels)	₱863	5	₱4,315
Printer		₱4,445	1	₱4,445
Biometric		₱7,800	1	₱7,800
	Overall Cost: ₱79,335			

We need to use hardware peripherals to be exact the computer won't work fully if we have no monitor

Table 4. Hardware Peripherals

Hardware Peripherals	Specification	Unit Cost	Quantity	Total Cost
Computer/PC	CPU- Intel Core 17 Quad Core, RAM 32GB, Storage 512 GB SSD (boot) 1 TB HDD Display 4k+ Resolution, GPU Nvidia GTX1060	₱50,000	5	₱250,000
Overall Cost: ₱250,000				

3.2 Proposed Operating System Platforms

The researchers recommended a user-friendly, familiar, and simple operating system. In addition, support software applications and ensure the security of file exchanges.

Windows 7 Home

It is a significant release of the Windows NT operating system developed by Microsoft

Table 5. Operating System

OS Platform	Specification	Unit Cost	Quantity	Total Cost
Windows 7	- 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor* 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit) 16 GB available hard disk space (32-bit) or 20 GB (64-bit) DirectX 9 graphics device with WDDM 1.0 or higher driver.	₱1,000	5	₱5,000
Overall Cost: ₱5,000				

3.3 Proposed Enterprise Software Applications

Enterprise can help the business growth also it is very effective and efficient to every business.

Table 6. Enterprise Software Applications

Enterprise Software	Specification	Unit Cost	Quantity	Total Cost
Business Intelligence	-Help the business user sees the answer faster. -Provide the ability to analyze and problem-solve rapidly	₱500	1	₱500
Overall Cost: ₱500				

3.4 Proposed Data Management

Table 7. Operating System

Proposed Data Management	Specification	Unit Cost	Quantity	Total Cost
Microsoft Office	Excel PowerPoint Word	₱5,200	1	₱5,200
Overall Cost: ₱5,200				

3.5   Proposed Network & Telecommunications

The researcher offered this type of communication system and broadcasting as a valuable tool for accessing data information and speeding up internet connections.

Table 8. Network & Telecommunications

Proposed Network & Telecommunication	Specification	Unit Cost	Quantity	Total Cost
Telephone Network	Telecommunications network that connects Telephones, which allows telephone calls between two or more parties, as well as newer features such as fax and internet.	₱9,000	1	₱9,000
Internet	25 Mbps of download speed and 3 Mbps of upload speed. Some people can get away with fewer Mbps, and others need more	₱2,000	1	₱2,000
Overall Cost: ₱500				

3.6   Proposed Internet Platforms

Online platforms bring customers and producers together, allowing exchanges that would not have happened otherwise**.**

E-commerce

An e-commerce platform is a piece of software that allows you to buy and sell products over the internet. Customers require a search feature to find a specific product, a cart tool to manage their order, and a payment option to use an e-commerce platform.

Table 9. Internet Platform

Proposed Internet Platforms	Specification	Unit Cost	Quantity	Total Cost
Social Media Platforms	As web-based and mobile-based Internet Application that allows the creation, access, and exchange of user-generated content	Free	1	Free
Overall Cost: Free				

3.2 Proposed IT Manpower

The researcher offered IT specialists who can assist and do tasks to solve a problem that already exists. Preventive maintenance, on the other hand, refers to undertaking proactive maintenance to avoid system failures.

Table 10. IT Manpower

Proposed IT Manpower	Specification	Unit Cost	Quantity	Total Cost
Social Media Platforms	Ensuring that parts, materials, and systems are in good working order, preventive maintenance helps prevent failure. Troubleshooting is a systematic approach to identifying the source of the problem in a computer system. A solid preventative maintenance program helps in reducing losses.	₱2,000	2	₱4,000
Overall Cost: ₱4,000				

CONCLUSION AND RECOMMENDATION

3.3 Conclusions

We have a lot to learn. The study concludes Rose Pharmacy Inc. needs a system that will aid the efficiency of their business process. Therefore, it's obligatory to propose an IT infrastructure to gain operational excellence, resulting in significant profits for the store. This will help the growth of the business as well.

3.4 Recommendations

The study shows that it is required to improve the business's attendance in acquiring Information systems and IT infrastructure. The researchers avidly recommended Attendance and Scheduling Systems to achieve operational greatness. We recommend this in our proposal to increase efficiency and improve the existing business.

- The recommended system aids in the management of attendance and schedule. The designed methodology will aid in the improvement of the management of attendance and schedule of the current business.
- The researchers aim to develop and recommending as a valuable tool for business management.
- They should have external consultants to modernize and basic diagnostics in term of technical control.

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