INFORMATION SYSTEMS DEVELOPMENT PLAN FOR OK ROOMS INN (PANABO BRANCH)

Jenerica N. Marquez Student, Bachelor of Science in Information Systems, Davao del Norte State College marquez.jenerica@dnsc.edu.ph,

Michelle Laurente Student, Bachelor of Science in Information Systems, Davao del Norte State College laurente.michelle@dnsc.edu.ph

Archie B. Matuguina Student, Bachelor of Science in Information Systems, Davao del Norte State College matuguina.archie@dnsc.edu.ph,

Marjorie M. Orig Student, Bachelor of Science in Information Systems, Davao del Norte State College orig.marjorie@dnsc.edu.ph,

> Glendell R. Jadraque Faculty, Davao del Norte State College glendell.jadraque@dnsc.edu.ph

ABSTRACT

OK Rooms Inn, Panabo City branch specifically, is a three-year-old lodging business for travellers, tourists, and even locals seeking an excellent place to stay in Barangay Gredu, Panabo City. OK Rooms Inn offers two different variations of room accommodations which are the Regular Room and VIP Room.

In reference to it, the study will explain the current business flow and of the Inn as well as the business's background, specific stakeholders and determine particular concerns and problems that the company has encountered through an interview. This research will propose a Customer Relationship Management System, which focuses on implementing a database system. The study will state its possible effects and the advantages it can offer to the business itself. Recommendations and ideas for a better workflow of the company, management, value creation, and decision-making will coincide with an efficient, time-relevant, and executable Development Plan for the OK Rooms Inn is on the list. This is to help and address spotted problems of the Inn and help them foster their services while saving time and effort at the same time.

Keywords: Information system, business process, database system, Customer Relationship Management System

1.INTRODUCTION

1.1 Background of the company

Having a place to stay during vacation or being far away from your home is very convenient and essential. Looking for the right place to stay before going to your destination is something you need to do first. The fast-growing development of different beautiful destinations worldwide also opens promising opportunities for business owners to start a business. Inns or hotels are the perfect places where you can stay and relax, as they will provide their customers excellent and satisfying services.

OK Rooms Inn (Panabo branch) is a medium-scale business that offers suitable accommodation and facilities to help their customers enjoy their stay. Mr. Elizer Toyongan is the supervisor of OK Rooms Inn, which Mr. Joel Lebumfacil owns. The business has two branches, the main branch is located at Mati City, and the other is located at Barangay Gredu, Panabo City. The OK Rooms Inn Panabo branch successfully launched its first operation last 2018. The OK Rooms Inn Panabo branch has five employees that are trusted and friendly. They

are assigned to welcome and assist their customers 24/7. The business offers Regular rooms and VIP rooms for travellers and even for locals. OK Rooms Inn is a business that is ready to serve its customers at all times.

1.2 Current routines and business processes

1.2.1 Current routines

As the business is open 24 hours, the management ensured that they maintain cleanliness in the entire Inn. We asked the Inn supervisor; they start the day by making sure that all 37 rooms are clean and ready to use. The employees are readily deployed in their areas as they have different responsibilities to fulfil.

When a customer wants to use a room, the supervisor will tell them about the room price ranges. The supervisor made sure that they correctly recorded the customers' information on their logbooks. When the customer has used up their time, the room boy/girl will knock on their room door and inform them to check out. Upon checking out, the cashier will collect the payment and will hand them the receipt. The payment can be made before or after using the room, depending on what the customer and the supervisor have agreed. As the customer checks out, a room boy/girl will enter the used room for cleaning and prepares it for the next customer.

The cleaning time for every room is up every time the customer leaves the room. The room boy/girl will follow in cleaning.

100	Table 1. Event table of OK Rooms Init (1 anabo Braten)				
Start Time End Time		Task	Duration		
6:00 AM	8:00 AM	Inn cleaning	2 HRS.		
8:00 AM	12:00 PM	Entertaining of Customers	4 HRS.		
12:00 PM		LUNCH BREAK	1 HR.		
1:00 PM	6:00 AM	Resume of Works	17 HRS.		

 Table 1. Event table of OK Rooms Inn (Panabo Branch)

1.2.2 Business Process

OK Rooms Inn has 37 rooms in total, and their management has been receiving good feedbacks from the customers who happened to avail themselves of great accommodations from them. Upon opening for operation, the supervisor has made sure that every room is neat and clean. As the customers arrive at the front desk, the supervisor entertains all their queries on paying for a room.

The prices range for every room differs from whether it is a Regular Room or a VIP Room and the length of the time spent using the space. Moreover, their payment system is still done manually. The business makes use of a logbook in collecting cash payments from their guests. Every transaction is recorded manually with a logbook.

1.3 Problems Found

Application. The Inn still has the paper-based logbook filling, and it is hard for them to handle because it can't have any erasures.

Lack of IT Infrastructure. The Inn has not yet invested in any IT infrastructure.

Customers. They have problems negotiating about the payment with drunk customers.

1.4 Goals and Objectives

1.4.1 General Objectives

The researchers aim to propose an information system that will aid the business in executing effective, timerelevant, and efficient business processes. The system will enhance customer service and provide a reliable data filling system for better room log-in transactions.

1.4.2 Specific Objectives

The specific objectives of the proposed system are the following:

- Build and enhance good customer relationships.
- Convert manual recording method into electronic recording.
- Secure the customer's information through a database system to ensure confidentiality.
- Engage business processes into modern technology.

1.5 Organizational Structure

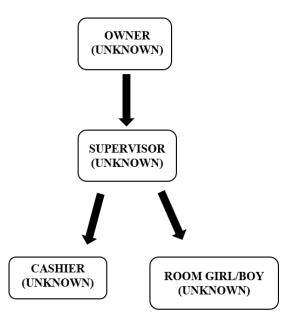


Figure 1. The Organizational structure of OK Rooms Inn

Figure 1 shows the Organizational structure of the OK Rooms Inn. The owner runs the business, followed by the supervisor who supervises the employees about their work, a cashier responsible for receiving and recording payments, and a room girl/boy who cleans the room before and after being used by the customers.

1.6 Stakeholders

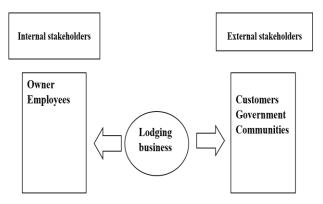


Figure 2. Stakeholders of OK Rooms Inn

Figure 2 shows the Stakeholders of the OK Rooms Inn.

2. PROPOSED INFORMATION SYSTEM

2.1 Review of Related Study

2.1.1 Related Literature

As time goes by, in accompanied with the continuous increase and development of the technology, making our time a "tech-driven era" and allowing faster and easier forms of processes and routines, even people's daily transactions concerning our basic needs such as food, clothing, shelter, work, education and even entertainment are being catered chiefly electronically. With these rapid changes in consumer behaviour, market demands go different and even higher as well. Everything goes online and electronic [1]. In which hotels and lodging businesses around the globe is not an exemption.

Hospitality industries such as hotels and lodging establishments are significant contributors in the shade of tourism [2]. Usually, whenever a traveller comes to a place, looking or looking for a good, budget-friendly,

clean, comfortable and safe place to stay in is one of his bucket lists. Lodging and hotel's traditional operating principles circulates with the front desk area, housekeeping teams, management, admin, HR and security department, fulfilling different task they're meant to do [2].

Hence, day by day, changes in demand is increasing due to numerous factors, in which being able to improve its quality in terms of providing the best services to valued customers is a must, that means, introduction and integration of online or electronic intermediaries are in need [3] in this industry. Not just to stay still in competitions of this ever-growing market for guests [4], but also to alleviate customer experience in lodging businesses, just knowing that lodging sectors are a good example in illustrating quality services. [3] According to the authors, reaching and meeting up the customers' needs and expected return, all in all, defines service quality, whereas being consistent of providing the best services to guests will promote business competitiveness at the same time [4]. In the perception of hotels and lodging business in all places, good accommodation and a memorable time of stay are the goals, which covers different needs a customer might have, these includes a shelter, food, and security in a comfortable and as affordable as possible [5] [6].

Indeed, the integration of technology and Information System into the hospitality sectors is a good advantage. For instance, marketing strategies, on the other hand, is not easy. Performing TOE (Technology-Organization-Environment) might win the game. Studies observe the vast advantages and increase it can give to the business's performance. It allows several medium and benefits that the traditional marketing techniques cannot do [2].

With the vision of having greater returns and still doing great in its services, better business processes with Customer Relationship Management in a business are essential. According to some research, maintaining a good relationship with the customers is a portal to more significant revenues and success. Studies found out that those branches with more satisfied customers showed more substantial returns. To make this thing possible, creating and promoting consumer loyalty will require more effort, time, innovation, workforce development, and demonstrate effectiveness in terms of service management. Expensive comfort will surely increase the customers' price sensitivity, but when a customer's satisfaction was met, loyalty will be there [7].

2.1.2 Related System

In finding a suitable information system for a business, we need to consider the capability of the company to implement the proposed approach and how this system could help the industry solve its problem. As time goes by, Customer Relationship Management (CRM) systems continuously become more popular, and it is one of the most argumentative and contentious topics among academicians in business. In adopting Customer Relationship Management, they record customers 'information and convert it into business assets [8].

The fast-growing development of the hospitality industry brought competition in the sector is becoming more aggressive. To compete in that market, they should always consider the value of their services by ensuring that they provide satisfying services to their customers; simultaneously, the organization should always build a good customer relationship. CRM is a system that could help companies to increase business sales, decreased operational costs, and develop customer satisfaction rates. As competition arises in the hotel industry/hospitality industry, customers' expectations towards expanding services have increased, marking new records for upcoming development. As a result of CRM use, the Hotel industry in India experiences good results from registering their guest's names and all the needed information during their check-in. The sharing of personal preferences among their staff is practiced to assure comfortability during the stay in the hotel.

To provide a unique experience to their guest, they can connect these data into IT [9]. Hence, the change from product-focused into customer-based strategy became a major transformation among companies. They invested more in the technologies that improve customer-focused approaches because people nowadays are more knowledgeable and demanding as the company needs to deal with it. Adopting CRM is the best way to focus on organization and customer relationships [10].

According to [9], CRM is all about understanding the customer's need to obtain a good relationship with their customers and understand the services they are expected to achieve and integrate IT management services [9].

2.2 Name of Information System I

Customer Relationship Management System

Customer Relationship Management (CRM) System uses data analysis to study a large amount of customer information. This system puts the customer first as it aims to build customer relationships. A CRM system helps a business to enhance an organization's operation. The CRM tool will help streamline business processes, improve profitability and stay connected to customers. This system will help the business in keeping customer information safe and accessible to the management.

2.2.1 Functionality

- It will automate the manual logbook system of the business.
- It can record a considerable amount of customer information.
- The database is used to keep records safe and accessible at any time.
- Accepts customer data.
- Saves customer data.
- Edit customer data.
- Deletes customer data.

2.2.2 System Architecture

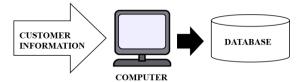


Figure 3. System Architecture of the Customer Relationship Management System

Figure 3 shows the system's flow and starts from inputting customer information into the computer, which will then get saved into the database.

2.2.3 Economic Feasibility

Cost Description	Cost	
Operational cost	Php 55,000	
Development cost	Php 120,000	
Maintenance cost	Php 50,000	
Manpower cost	Php 60,000	
Total cost	Php 285,000	

Table 2. Economic Feasibility of OK Rooms Inn

3. PROPOSED IT INFRASTRUCTURE

3.1. Proposed Computer Hardware

The researchers proposed this computer hardware for the Inn as it helps save and secure records. This computer hardware can help improve business transactions and track saved records for business use.

Desktop Computer

A private pc is intended for regular use at one location on a table because of its size and power needs.

Computer	Specification	Unit	Quantity	Total Cost
Hardware		Cost		
	Brand Name: Dell			
	Item model number: OptiPlex 7080 Mini			
	Tower			
	Processor: Intel Core i7-10Th Gen			
	Ram: 4 GB			
	Hard Drive: 1 TB HDD			
Desktop Computer Set	Graphics Processor: Intel® UHD Graphics 630			
I I I I I I I I I I I I I I I I I I I		29,179.1	1	29,179.11
		1		,
Overall Computer Hard	ware Cost 29,179.11	-		

3.2. Proposed Operating System Platform

The researchers proposed a fast, reliable, and safe Operation System that can support every software application.

Windows 10 Home

A Microsoft standard operating system that supports many built-in features also includes security features such as firewall and internet protections that can aid the proposed approach in handling business transactions.

OS Platform	System Requirements	Unit Cost	Quantity	Total Cost
Windows 10 Home	Processor: 1 GHz RAM: 2 GB (64-bit) Hard Disk Space: 20 GB Video Card: 800 x 600 DirectX 9 or later with WDDM 1.0 driver	5,739.66	1	5,739.66
verall OS Pl	atform cost	5.739.66		

Table 4. Proposed Operating System for OK Rooms Inn (Panabo Branch)

3.3. Proposed Enterprise Software Application

Customer Relationship Management Software

It is a massive help in helping a customer base business to grow and foster. CRM software is efficient in viewing and speeding up sales processes, storing and organizing customer details, getting quickly in touch with other mediums and stakeholders, and fostering business marketing in a time-relevant and comfortable way.

Enterprise Resource Planning Software

With ERP software, business processes and transactions will be efficient and fast. It offers applications that can help improve business functions such as reporting, sales quoting, accounting, and production.

Enterprise software application	specification	Unit cost	quantity	Total cost
	Time-efficient in taking down data			
EDD America	Promotes transparency and easy information access		1	Php 3,000
ERP software	Organized reports	Php 3,000		
	Improve accounting process's efficiency			
	Improve customer relationship			
CRM system	Contact management and customer relationship	Php 24,000	1	Php 24,000
CRM system	Marketing management	r np 24,000	1	r np 24,000
	Sales automation			
	Workflow automation			
Overall Enterprise Sof	tware Application Cost	1	Php	27,000

3.4. Proposed Data Management

Data Management performs tasks such as collecting data, storing data, processing data, and managing the business's data, which is a reliable way of handling every business transaction, especially record-keeping.

MYSQL

A platform from Oracle is used for data management.

Table 6. Proposed Operating System for OK Rooms Inn (H	Panabo Branch)
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Data	Specification	Unit Cost	Quantity	Total Cost
Management				
	It follows a client/server			
	architecture.			
	One of the swift database languages.			
	It is easy to use and secure.			
	It is scalable.			
MySQL	Compatible on many operating			
	systems.	Free	1	0.0

3.5. Proposed Network and Telecommunication

Router

It is a switching device for networking. A router enables good communication with network packets. It is utilized to access the internet and creates communication between it and your device.

Switch Hub

It connects devices on a computer network using packet switching to receive and forward data to a particular destination device. With switch hub, we can connect unto the number of PCs, whereas switch manages its data links.

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able 7. Proposed Network and Telecommunication for OK Rooms Inn (Panabo Branch)					
	Network and	Specification	Unit cost	Quantity	Total cost
	Telecommunication				
R	outer	TP-Link-T L-	Php 930.00	1	Php 930.00
		Wr84 1N Wireless	_		_
		N Router			
S	witch hub	TP-Link TL-	Php	1	Php
		SD1016 D 16 port	1,900.00		1,900.00
0	verall Network and Teleco	mmunication Cost			Php 2,830.00

3.6. Internet Platform

Internet is all over the world, and it eventually improves our daily activities and transactions. From small to huge businesses, the traditional functionalities are being gradually changed and automated.

Table 8. Proposed Internet Platform for OK Rooms Inn (Panabo Branch)

Internet	Specifications	Unit cost	Quantity	Total cost
platform				
	DMP was able to gather and manage data and point out audience segments for online advertisings.			
	The business will be informed of the latest taste and			
Data	trends and the choices of the customers.			
Management				
Platforms				
(DMP)		Free	1	0.0
	A faster, more accessible, and more cost-efficient			
	medium to gather customers.			
	A time-relevant marketing way at the same time,			
	and draw more and more immense opportunities for	Г		0.0
Online	more suppliers and business partners to come in.	Free	1	0.0
Advertising				
Platform				

3.7. IT Manpower

For a business to be successful, supportive, adequate, and well-trained human resources are essential. It is proportional to productivity and what keeps the business moving.

Manpower Development

- Knowledge
- Skills
- Training
- Character

Small and Medium-Sized Business (SMBs)

These are business that has smaller revenues and usually, with less 100 employees only. Due to its size, problems concerning customer satisfaction, workflow management, and customer relationship are there.

Table 9. I Toposed IT Manpower for OK Robins IIII (I anabo Branch)				
IT Manpower	Specification	Unit Cost	Quantity	Total Cost
Small and Medium- Sized Business (SMBs)	Time relevant and cost-efficient Challenges from the use of manual/ traditional data filing will be addressed. Better understanding with the customers Faster transactions	Free	1	0.0

Table 9. Proposed IT Manpower for OK Rooms Inn (Panabo Branch)

3.8. Prototype

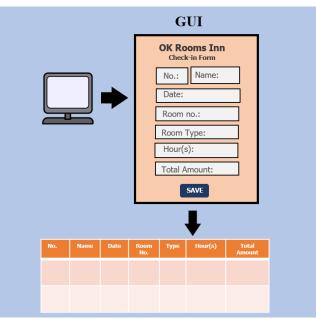


Figure 4: Prototype for OK Rooms Inn

Database Management System

Figure 4 shows the prototype of the proposed system for OK Rooms Inn. This prototype will help the business automate its manual logbook system. This system accepts customer information starting from getting a unique number for each customer for a database storing purposes, name, date, room number, room type, hours, and total amount. This system will automate every business recording transactions, making it more convenient for the management to keep records.

4. CONCLUSION AND RECOMMENDATION

4.1. Conclusion

OK Rooms Inn Panabo Branch is a lodging business, on a medium scale, located at Barangay Gredu, Panabo City, Davao del Norte, owned by Mr. Joel Lebumfacil, manages by Mr. Elizer Toyongan. OK Rooms Inn also has its main branch in Mati City, Davao Oriental.

During our interview with Mr. Toyongan (branch manager), we eventually found out that they are having difficulties recording and taking down client information, resulting in slower and time-consuming reports and accounting processes. OK Rooms Inn is still using the manual filling application to collect client information, room booking processes, client bills and payments.

Our proposed system, Customer Relationship Management System, will eventually help to find out and lay down solutions for the said business. Customer Relationship Management has its tools to enable better business processes, promote greater returns, and build a stronger connection with the customers. With CRM, automation of the manual logbook system can be achieved. Gathering and storing vast amounts of customer information with enough security is possible through a database. Everything will go smooth, time-relevant, accessible and efficient.

Being open to changes and innovations are some of the greatest assets you must have in a business. At some point, driving on the same street repeatedly will cause you nothing but lame confidence, a kind of confidence that you think will bring you to success but, unfortunately, is the one dragging you to the end of the line. Sometimes, daring to move your wheels and looking for other sites will make you realized that things could not stay the same all the time. Beauty and victory only come to the brave ones. Just how a wheel of a firm must continuously move for multiple options and find out various ways.

4.2. Recommendation

In this proposal, we highly recommend that the management implement our proposed system to solve their existing manual logbook or record-keeping problem. This system will help the business automate their

business transactions and as well as, improve their workflow. The proposed approach is user-friendly, making it easy for the employee to use it in their daily record keeping. The researcher's additional recommendations are as follow:

- Investing in IT infrastructure is a great help for the business as it would make every transaction less burdensome.
- Always be prepared for the risk when applying the system.
- The researchers also recommend to the future researcher to use this study as a future reference.

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CURICULUM VITAE

	JENERICA N. MARQ
	PERSONALPROFILE
CONTACT ME AT	I am a Davao del Norte State College student studying of Science in Information Systems. I got a background Computer Networking way back in High School, wi National Certificate II.
Philippines	WORKEXPERIENCE
🚔 marquez.jenerica@dnsc.edu.ph	No work experience yet,
ØJenerice Marquez	EDUCATIONALHISTORY
	New Corella National High School Computer Systems Servicing June 2013 - April 2019 • Studied Computer Systems Servicing in pr
SKILLS SUMMARY	taking the National Certificate II by TESDA. Install and configure computer sys
	 install and configure computer sys up computer networks and servers, m
	repair computer systems and networks. Davao del Norte State College
	BS in Information Systems August 2019 – Present • Incorporating Information Technology to Busis
AWARDS RECEIVED Computer Systems Servicing HC II paster, NCHR (2019)	
With Honors, NCNHS (2019)	







- •
- Archie Bumaya Matuguin

AWARDS RECEIVED

ARCHIE MATUGUINA

DAVAO DEL NORTE STATE COLEGE

PERSONAL PROFILE Pursuing Bachelor Of Science In Information Systems at Davao del Norte State College, Panabo City.

WORK EXPERIENCE

Florist/ Coordinator A&C EVENTS Suarez Building, Rizal St. Tagum City | December 2014- May 2016

Assemble and set up venues for different kinds of events.
 Decorate and arrange fresh flowers.

Assistant Auto Body Painter L Corner, Tagum City | April 2018- May 2018 Perform auto body repairing tasks Painting and in applying lacquers, primers, synthetic enamels, polyurethane, and epoxy with spray guns and other auto painting equipment to cars.

EDUCATIONAL HISTORY

La Filipina National High School General Academic Strand | June 2013- April 2019

- Dealing with organization, social sciences and management subjects.
 Engaging with a number of communication development related activities.
- Davao del Norte State College Bachelor of Science in Information Systems | August 2019-Present
- learning and integrating information Systems as a medium to address challenges and improve transactions in a business.



- Mariorie Orig

With Honors

MARJORIE M.ORIG

DAVAODELNORTESTATE COLEGE

PERSONALPROFILE

I am a second year college student at Davao del Norte Stage College taking up Bachelor of Science in Information Systems.

WORKEXPERIENCE

No work experience as of the moment.

EDUCATIONALHISTORY

- La Filipia National High School General Academic Strand | June 2013- April 2019 Engaging Business Finance , Politics and Governance subjects. Improving communication skills and effective writing skills.
- Davao del Norte State College Bachelor of Science in Information Systems | August 2019-Present
- Combining Information Technology and Business subjects.

Documentation



