

Chapter 1

INTRODUCTION

The rising demand for professional cleaning and sanitizing services, the inefficiencies of using social media in reservation and a traditional manual management, needed a digital solution. The Germs Buster Bacolod Cleaning and Sanitizing Services Reservation and Management System aims to address these challenges by providing an online platform using mobile application and web application for reservation, scheduling, service, customer and employee management. This system will streamline the operation, improve customer satisfaction, and employee management to boost the overall quality of cleaning and sanitizing services in Bacolod.

Technology has significantly advanced the way we manage cleaning and sanitizing processes, particularly in residential and commercial settings. By integrating a digital and management system, property owners and administrator can minimize operations, ensure consistent hygiene

standards, and enhance overall customer satisfaction. As stated by Hussain et al. (2022), the progress of technology has allowed the creation of cleaning management software that can perform various cleaning procedures with minimal human input. The adaptation of technology in terms of providing a cleaner

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environment aims to enable the safeness of everyone to the highest level possible. Thus, the proposed project aims to deliver the cleaning administrator and personnel with a system that will provide them with well-managed software to conduct cleaning procedures properly. Additionally, the system can integrate with reservation systems to coordinate cleaning efforts on customers reserve services and ensure that properties are thoroughly cleaned and sanitized. In addition to increasing productivity, this technological integration gives customers and property owners piece of mind by adhering to strict cleaning guidelines.

Germ Buster Bacolod Cleaning and Sanitizing Services is a cleaning company in Bacolod City, Negros Occidental. They specialize in a range of cleaning and sanitizing services, including bathroom deep cleaning, window sanitization, floor polishing, and whole-home disinfection. Germ Buster Bacolod wants to give their customers healthier and more hygienic living areas by offering thorough cleaning and sanitizing services. Their commitment to using effective cleaning products and techniques helps prevent the spread of germs and bacteria, promoting a healthier environment for residents of Bacolod City. Currently, the company relying solely on social media to communicate with customers. This reliance on social media has made it challenging for the company to effectively manage reservations and managing their customers. The company also use a manualize process in terms of managing their employees. Recognizing this issue, the proponent conducted a study to explore a solution to streamline the reservation process and enhance employee management. By implementing a more efficient reservation and management system the company aims to improve operational efficiency and better serve its growing customers.

The proponent came up with the solution in developing a web application for the admin and employee's and mobile application for the customer for their reservations. This research will provide a thorough understanding of Germ Buster Bacolod's reservation and management system, its functionalities, and its potential benefits. By understanding user experience, the proponent can identify areas for improvement to ensure a smooth and efficient experience for both customers and Germ Buster Bacolod. This research will contribute valuable insights into the potential of online reservation and management systems for cleaning

services, specifically focusing on Germ Buster Bacolod Cleaning and Sanitizing Services Company.

Objectives of the Study

The general objectives of the study are to design and develop a Cleaning Management System for Germs Busters Bacolod Cleaning and Sanitizing Company. Specifically, the study aims to:

1. Design a web application with the following features:
 - a. Service Management.
 - b. Customer Management.
 - c. Employee Management.
 - d. Customer History Transactions.
 - e. Report Generation.
2. Develop a mobile application with the following features:
 - a. Reservation of Services
 - b. Mode of Payment (Gcash, Cash, Online Banking)
 - c. Feed backing
3. Evaluate the system using ISO 25010: 2011 with the following measures.

- a. Functional Suitability
- b. Performance Efficiency
- c. Usability
- d. Compatibility
- e. Reliability
- f. Security
- g. Maintainability
- h. Portability

Significance of the Study

Germ Busters Bacolod Cleaning and Sanitizing Services. The system can help the company in online reservation, managing the employee and customers.

Company Admin. The system can help the admin in managing the company's services, customers and employee.

Employee. The system can help the employee by minimizing the workloads when it comes to sending information to the admin if the employee is done with the assigned task.

Customer. The system can help customers in reserving the available services of the company by using the mobile application.

Researchers. The system will help us, the researchers,

to gain new knowledge in developing web and mobile applications of the chosen company.

Future Researcher. The study will serve as reference to

future researchers.

Scope and Limitations of the Study

The scope of the study Germ Busters Bacolod Reservation and Management System would likely encompass an online reservation for customers to schedule cleaning services, view options and pricing, and manage reservations. The system processes payments, manage customers, and store data to inform future improvements in the database. The system administrator will only be the one to handle the web application to manage the users and assign tasks to the available employee. The customer will use the mobile application as the way of transaction and reservation of the available services of Germ Buster Bacolod Sanitizing and Cleaning Services.

However, limitations exist. The system dependence on internet connectivity and this could be a hurdle in areas with poor internet access. Technical issues and security risks are possibilities. Not everyone might be comfortable using a mobile application because it will be downloaded first before using. As Germ Busters-Bacolod Cleaning and Sanitizing Services Reservation and Management System develop, the system's scalability to handle more reservation and staff needs careful consideration. The admin will only provide an account for the number of employees in the company, and for the customers they will

register their own account, but the admin will accept the registration to confirm if the account of the customer provides a legit information.

Definition of Terms

Administrator. Someone who has elevated privileges or authority to manage, control, or oversee certain aspects of a system, network, website, or organization. Operationally, the admins typically have access to additional features or settings that regular users do not, allowing them to make changes, set permissions, and maintain the system or platform they oversee.

Accessibility. According to the US Department of Education (2024) Accessibility ensures everyone can perceive, understand, navigate and interact with information on the internet, regardless of ability. Common example of accessibility that we have all likely encountered, is in the context of architectural design. Operationally, the system is accessible that the user can easily access.

Appointment Scheduling. An appointment scheduling system, also known as appointment booking system or appointment management software, is a solution that makes it easy for service providers to manage appointments. By Iryna Ananko (2023). Appointment scheduling allows users to set appointment schedule and give customers the ability to reserve slots on their own.

Customer Management. A critical aspect of any cleaning and sanitizing service. According to (Othman, Harun, Rashid, & Ali, 2019), customer satisfaction is the key to long-term business success. It involves understanding customer needs, managing their expectations, and building strong relationships to ensure customer satisfaction and loyalty. Operationally, cleaning and sanitizing service providers can build a strong customer base,

improve customer satisfaction, and achieve long-term success.

Feedbacking. Feedbacking in a reservation and management system refers to the process of collecting, analyzing, and responding to customer feedback on the services provided. This feedback can be obtained through various channels, such as online surveys, email, or in-person interactions. By incorporating feedback into the system, businesses can identify areas for improvement, enhance customer satisfaction, and ultimately optimize their operations. For example, a hotel reservation system might use feedback to improve its booking process, room amenities, or customer service. CRS (2020).

Employee Management. The process of managing an organization's employees, including recruiting, hiring, training, evaluating, compensating, engaging, motivating, and managing your workforce by Keith MacKenzie (2023). The processes involved in managing and overseeing employees within an organization. Effective employee management is crucial for ensuring efficient operations, maintaining high service quality, and maximizing customer satisfaction.

Mode Of Payment. The method used to exchange goods or services for money. Common modes of payment include cash, credit cards, debit cards, digital wallets, bank transfers, and mobile payments. Cash involves physical currency, while credit cards allow users to borrow money for purchases. Debit cards deduct funds directly from a bank account. Digital wallets store payment information electronically for quick transactions. Bank transfers involve electronic fund transfers between accounts, and mobile payments utilize smartphones for transactions. The choice of payment method often depends on factors such as convenience, security, and the specific needs of the buyer and seller.

Report Generation. The process of creating structured summaries of data to provide valuable insights into business operations. This involves collecting relevant data from various sources, such as booking records, customer information, and employee performance metrics. The system then processes and analyzes this data to generate reports in various formats, including tables, charts, and graphs. These reports can be used to track key performance indicators, identify trends, and make informed decisions. For instance, a hotel reservation system might generate reports on occupancy rates, revenue, and customer satisfaction to optimize pricing strategies and improve guest experiences.

Service Management. The overall coordination and oversight of service delivery processes. It involves planning, scheduling, executing, and monitoring cleaning and sanitizing tasks to ensure consistent quality and customer satisfaction. Operationally, refers to the overall coordination and oversight of service delivery processes. It involves planning, scheduling, executing, and monitoring cleaning and sanitizing tasks to ensure consistent quality and customer satisfaction.

Transaction. The digital records of interactions between customers and the system. These transactions encompass a wide range of activities, including booking reservations, making payments, modifying bookings, and canceling reservations. Each transaction is typically recorded with detailed information such as the customer's name, contact information, booking details, payment method, and transaction date and time. By tracking these transactions, businesses can analyze customer behavior, optimize operations, and generate valuable insights for decision-making.