**“Developing Information Kiosk:**

**An Innovative Project for**

**Negosyo Center Bacoor”**

A Thesis Project Presented to the

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**ABSTRACT**

This research paper explores the development of an innovative Information Kiosk tailored for the Bacoor City Livelihood and Development Office. Leveraging the capabilities of HTML (Hypertext Markup Language) and Bootstrap, the kiosk is specially designed for tablet device, aiming to streamline and enhance various administrative processes related to business registration and development. The comprehensive content of the kiosk includes features such as DTI(Department of Trade and Industry) business name registration, renewal, certification requests, issuance of certified true copies, FAQs (Frequently Asked Questions), cancellation procedures, business territorial scope upgrades, business name reconsideration, and support for barangay micro-business enterprises.

The primary beneficiary of this Information Kiosk is the Bacoor City Livelihood and Development Office. By implementing this technological solution, the office aims to improve efficiency, reduce processing times, and provide more accessible and user-friendly services for businesses operating within the city. This research contributes to the field by showcasing a practical application of web technologies in a government setting, highlighting the potential impact of user-centric design and technology adoption for administrative processes. The findings of this study may serve as a valuable reference for similar initiatives in other local government units, fostering a more technology-driven and responsive public service landscape.

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Lastly, I am thankful for the unwavering support of my friends, whose encouragement and understanding have been instrumental in my academic pursuits.

This research would not have been possible without the collective efforts of everyone mentioned above. Your contributions are sincerely appreciated

**DEDICATION**

I dedicate this work to my Family, the Bacoor City Livelihood and Development Office Family whose unwavering love, support, and encouragement have been my anchor throughout this journey. Your belief in me has fueled my determination, and this accomplishment is as much yours as it is mine. Thank you for being my constant source of inspiration.

**CHAPTER 1**

**THE PROBLEM AND ITS BACKGROUND**

**INTRODUCTION**

In the ever-evolving landscape of public service, technology plays a pivotal role in reshaping efficiency and accessibility. This research introduces an Information Kiosk crafted for the Bacoor City Livelihood and Development Office, leveraging HTML and Bootstrap. This tablet-friendly solution addresses intricate administrative processes tied to business registration.

The Bacoor City Livelihood and Development Office spearheads this initiative to streamline procedures and enhance services for local businesses. By embracing HTML and Bootstrap, we aim for a user-centric kiosk, simplifying processes like DTI business registration, renewals, certifications, FAQs, and supporting micro-enterprises.

This study into the rationale behind the Information Kiosk, emphasizing its potential to elevate service delivery in local government. By showcasing a practical application of technology, we offer insights for similar initiatives. The synergy of user-friendly design and tech adoption is a central theme, exploring transformative possibilities for administrative processes.

In subsequent sections, I detail the methodology, highlight key features, discuss benefits for the Bacoor City Livelihood and Development Office, and conclude with reflections on broader implications. Through this exploration, we aim to provide a concise understanding of the Information Kiosk’s significance in Bacoor City and offer insights for broader initiatives.

**BACKGROUND OF THE STUDY**

The Bacoor City Livelihood and Development Office plays a pivotal role in providing essential services to local businesses through the Negosyo Center. However, clients often face challenges accessing and understanding the array of services offered. Recognizing the need for a more accessible and user-friendly information platform, this research focuses on developing an Information Kiosk for inquiry purposes.

The tablet-based kiosk, utilizing HTML and Bootstrap technologies, aims to streamline the process of obtaining information about the Negosyo Center’s services. It serves as a digital guide, offering details on services such as DTI business name registration, renewals, affirmative/negative certification requests, and support for micro-enterprises. The primary goal is to enhance the efficiency of client inquiries.

By introducing this digital solution, the project addresses the specific needs of clients seeking information and aims to streamline the inquiry process at the Bacoor City Livelihood and Development Office. This study explores the rationale client experience and contribute to the modernization of local administrative services. Through the integration of user-centric design and technology, the Information Kiosk strives to provide a convenient and informative resource for clients engaging with the Negosyo Center.

**STATEMENT OF THE PROBLEM**

**Main Problem**

The primary problem addressed by this research stems from the challenges faced by clients seeking information and clarification, especially when in doubt about the responses provided by receptionists. This uncertainty often results in long queues and extended handling times. Prior to ISO certification, the traditional method of displaying information through paper postings on the window proved ineffective, as clients often did not engage with or read the posted materials. Furthermore, the tablet, initially provided for displaying the citizen charter of the Bacoor City Livelihood Office, was underutilized and not employed to its full potential. The Information Kiosk project aims to transform this landscape by leveraging technology to create an accessible and efficient platform for client inquiries, thereby addressing the identified issues and enhancing the overall client experience at the Negosyo Center.

**Specific Problem**

* Clients are not actively engaging with the tablet provided at the Negosyo Center, leading to a missed opportunity to leverage technology for effective information dissemination.
* The tablet, initially intended for displaying the citizen charter, is not being utilized to its full potential, resulting in a lack of efficiency in addressing client inquiries and concerns.
* Traditional methods of displaying information through paper postings on the window are proving ineffective, as clients often do not interact with or comprehend the posted materials.
* The current approach of using paper postings fails to provide a user-friendly and accessible means of communication, contributing to long queues and extended handling times due to client uncertainty and lack of clarity.

**OBJECTIVES OF THE STUDY**

**Main Objective**

The primary objective of the Information Kiosk project is to optimize client experience at the Negosyo Center by addressing the underutilization of the tablet and inefficiency of posted materials. Through the seamless integration of technology, the goal is to establish an accessible and efficient platform that empowers clients with accurate information, reduces handling times, and minimizes uncertainty, thereby enhancing overall service delivery and satisfaction at the Bacoor City Livelihood Office.

**Specific Objectives**

* The tablet provided at the Negosyo Center is underutilized, leading to a missed opportunity in leveraging technology for effective information dissemination.
* Lack of active engagement with the tablet results in a failure to optimize its potential for addressing client inquiries and concerns.
* Traditional paper postings on the window are inefficient in communicating information to clients, contributing prolonged handling times and client uncertainty.
* Ineffective communication through paper postings hinders the establishment of an optimal and seamless client-service interaction.
* The combined issues of underutilized technology and inefficient communication processes necessitate targeted interventions to enhance the overall client experience at the Bacoor City Livelihood Office

**SCOPE AND LIMITATION**

**Scope of the study**

The scope of the Information Kiosk project is comprehensive, encompassing various aspects of the client-service interaction at the Negosyo Center. With a specific focus on resolving the identified issues of underutilized technology and inefficient communication, the study will delve into several key areas.

Firstly, in the domain of Technology Integration, the project will involve an examination of the current state of tablet utilization. This will be followed by the implementation of strategies geared towards enhancing engagement and utilization of the tablet for more effective information dissemination.

Addressing Communication Effectiveness, the study aims to evaluate existing methods such as traditional paper postings. Simultaneously, efforts will be directed towards introducing more efficient and user-friendly communication channels, with the goal of reducing handling times and minimizing client uncertainty.

User Experience Improvement is another critical aspect, involving an analysis of the overall client experience considering factors such as accessibility, clarity, and responsiveness. Subsequently, measures will be implemented to enhance the user experience, ensuring accurate information delivery and fostering increased client satisfaction.

Operational Efficiency will be scrutinized, assessing the impact of the Information Kiosk on overall efficiency. This will be accompanied by the implementation of streamlined processes aimed at reducing queues and handling times, thereby enhancing the overall operational efficiency of the Bacoor City Livelihood Office.

The study will also encompass Training and Adoption, including the development of training programs for staff to effectively utilize and manage the Information Kiosk. Additionally, awareness promotion and encouragement initiatives will be implemented to encourage clients to engage with the new technology.

Finally, a Feedback Mechanism will be established to continuously assess the effectiveness of the Information Kiosk. This iterative process will involve making improvements based on feedback, ensuring sustained enhancements in client-service interactions. The study will be conducted exclusively within the confines of the Bacoor City Livelihood Office, with the overarching goal of transforming and optimizing current client service processes through the strategic implementation of technology and improved communication methods.

**Limitations of the Study**

In the pursuit of improving client-service interaction at the Negosyo Center through the Information Kiosk project, it is crucial to recognize several inherent limitations that may impact the study’s scope and applicability. Firstly, the focus solely on the Bacoor City Livelihood Office restricts the generalizability of findings to other locations or contexts. Additionally, time constraints may limit the depth of the study, particularly in understanding long-term effects and sustainability. Resource limitations, both financial and human, might impact the extent of technology integration and the execution of large-scale awareness campaigns.

Moreover, potential staff resistance or training gaps could affect the successful utilization of the Information Kiosk, influencing the overall project outcomes. The project’s dependence on technology introduces the risk of technical issues or malfunctions, potentially disrupting the intended objectives. Encouraging client adoption and engagement with the new technology may

face challenges, impacting the Information Kiosk’s utilization. The feedback mechanism, while essential, may be subject to bias, as feedback providers may not represent the entire client population

Furthermore, external factors such as changes in government policies or economic conditions could influence the project’s success and its ability to achieve long-term objectives. Recognizing and addressing these limitations transparently will contribute to a more nuanced understanding of the study’s outcomes, facilitating informed decision-making and refining strategies for client-service improvement at the Negosyo Center.

**THEORETICAL FRAMEWORK OF THE STUDY**

The Information Kiosk project draws upon several theoretical foundations to guide its design, implementation, and analysis. The integration of technology to enhance client-service interaction aligns with the principles of the Technology Acceptance Model (TAM). TAM posits that user acceptance and effective utilization of technology are influenced by perceived ease of use and perceived usefulness. In the context of the Information Kiosk, this theory guides the exploration of user attitudes, motivations, and behaviors towards the technology, ensuring its seamless integration into the client-service process.

The study is also informed by the Service Quality (SERVQUAL) model, which emphasizes the importance of service delivery in influencing customer satisfaction. By assessing factors such as accessibility, responsiveness, and accuracy, the project aims to enhance service quality at the Bacoor City Livelihood Office, ultimately contributing to improved client satisfaction.

Furthermore, the Diffusion of Innovations theory guides the understanding of how new ideas or technologies, such as the Information Kiosk, are adopted and spread within a social system. Recognizing the various stages of innovation adoption and the factors influencing this process helps tailor strategies for effective training, awareness promotion, and encouraging clients to engage with the new technology.

The study also considers aspects of Human-Computer Interaction (HCI) principles to ensure the Information Kiosk’s design aligns with user expactations and promotes a positive user experience. By incorporating HCI principles, the project aims to minimize user errors, enhance information accessibility, and foster user satisfaction.

The overarching framework combines these theories, providing a comprehensive approach to address the underutilization of technology and inefficiency in communication at the Negosyo Center. By synthesizing these theoretical perspectives, the study aims to offer a robust foundation for the successful implementation and evaluation of the Information Kiosk project, with the ultimate goal of transforming and optimizing client service processes.

**CONCEPTUAL FRAMEWORK OF THE STUDY**

|  |  |  |
| --- | --- | --- |
| **INPUT** | **PROCESS** | **OUTPUT** |
| * **Knowledge Requirements:**   - HTML  - CSS  - Bootstrap  - Github  - Git  - Vercel  - Visual Studio Code   * **Software Requirements:**   - Android 10  - Firefox v123.0   * **Hardware Requirements**   - Tablet  - 10.1” Display  - Wall Mounting  - Charger  - Wifi Router | * **Software Design and Developed** using Agile Model:   - Requirements  - Design  - Development  - Test  - Deployment  - Review | Information Kiosk for Negosyo Center Bacoor |

*Figure 1. Conceptual Model of the Study*

**SIGNIFICANCE OF THE STUDY**

**To the Proponents**

This study, titled “Developing Information Kiosk: An innovative project of Negosyo Center Bacoor,” holds significant value in several key areas. Firstly, it addresses a knowledge gap by exploring the design and implementation of information kiosks specifically tailored to the need of Micro, Small, and Medium Enterprises (MSMEs) seeking services from Negosyo Centers. This valuable contribution adds to the understanding of how information kiosks can be effectively adapted to cater to specific user groups and service sectors.

Secondly, the study demonstrates the kiosk’s potential to empower clients by enabling them to access essential information independently. This not only reduces wait times but also streamlines the serevice delivery process, aligning with the goals of the Anti-Red Tape Act (ARTA). Additionally, the kiosk promotes a paperless environment, contributing to compliance with ISO 9001:2015 standards.

Furthermore, the study showcases the potential for an improved client experience through the provision of readily accessible information, leading to increased satisfaction and a more positive interaction with the Negosyo Center. Finally, the concept of this information kiosk, characterized by its simple structure and focus on frequently asked questions (FAQs) and citizen charter information, has the potential to be adapted and applied to other government agencies facing similar challenges in client interaction and information dissemination.

By demonstrating the potential of the Information kiosk to enhance service delivery, improve client experience, and promote compliance with regulations, this study contributes

valuable insights to the growing body of knowledge surrounding the utilization of technology for fostering enhanced public service delivery.

**DEFINITION OF TERMS**

**Accordion**: A user interface design pattern that allows sections of content to expand or collapse, providing a more organized and compact presentation of information.

**Anti-Red Tape Act (ARTA):** A Philippine law enacted to streamline bureaucratic processes, eliminate unnecessary requirements, and expedite the delivery of government services.

**Barangay Micro Business Enterprise (BMBE):** A type of microenterprise business entity in the Philippines that receives benefits and incentives to encourage entrepreneurship at the barangay (local community) level.

**BNRS HelpDesk:** A support service or assistance desk associated with the Business Name Registry System (BNRS), providing guidance and support to users.

**Breadcrumbs:** A navigational aid that shows the user’s location within a awebsite or application hierarchy, typically displayed as a trail of clickable links.

**Business Name:** The official name under which a business entity operates, used for identification and legal purposes.

**Business Name Cancellation:** The process of officially revoking the registration of a business name, rendering it no longer valid or legally recognized.

**Business Name Registry System (BNRS):** An organized and centralized system for registering and managing business names, often maintained by government agencies.

**Business Name Registration:** The formal process of registering a business name with the relevant government authorities to establish its legal identity.

**Business Name Renewal:** The periodic process of extending the validity of a registered business name, typically requiring the submission of renewal documents.

**Business Territorial Scope:** The geographical area or locations where a business is authorized or registered to operate.

**Certified True Copy:** An official document or copy that has been verified as a true and accurate representation of the original.

**CICD (Continuous Integration and Continuous Deployment):** A set of practices that involve automatically testing and deploying code changes to production environments, ensuring continuous improvement and delivery.

**City Government of Bacoor:** The municipal administration responsible for local governance and public services within the City Of Bacoor.

**CSS (Cascading Style Sheets):** A style sheet language used for describing the presentation of a document written in HTML. CSS enhances the visual appeal and layout of web pages.

**Department of Trade and Industry (DTI):** A government agency that promotes and regulates trade and industry in the Philippines, often involved in business registration and development.

**Documentary Stamp Tax (DST):** A tax imposed on certain documents and transactions, often related tot legal and business matters.

**ESIGAW (E-Share Information, Gain Awareness)**: An online platform or system associated with the DTI, providing electronic services and information related to business processes.

**Git:** A distrubted version control system for tracking changes in source code during software development.

**GitHub:** A web-based platform that provides hosting for software development and version control using Git.

HTML (HyperText Markup Language): The standard markup language used for creating web pages.

Income Tax Return: A formal document filed with the tax authorities that reports an individual’s or business entity’s income, deductions, and tax payments.

Information Kiosk: A self-service digital system designed to provide information and services to users, often used in public spaces.

ISP (Internet Service Provider): A company or organization that provides internet access services to individuals, businesses, and other entitites.

ISO 9001:2015: An international standard for quality management systems. Organizations implementing this standard follow a set of principles to ensure they consistently provide high-quiality products and services.

Modal: A UI component or window that overlays the main content of a page, typically used for displaying additional information or interactions.

MSMEs (Micro, Small, and Medium Enterprises): Buisness entities classified based on their size, including micro, small, and medium enterprises, often with specific criteria determined by government regulations.

QMS (Quality Management System): A framework of policies, procedures, and processes that organizations implement to ensure consistent quality in their products and services. QMS helps organizations meet customer and regulatory requirements.

Regional Office (RO): An administrative office representing a larger organization within a specific geographic region, often providing localized services.

Request Affirmative/Negative Certification: The process of formally seeking confirmation or verification, either affirmative or negative, regarding a particular business status or attribute.

Router: A networking device that directs data traffic between computer networks, ensuring efficient communication.

SRS (Software Requirements Specification): A detailed document that outlines the functional and non-functional requirements of a software system.

System Test: The phase of software testing where the complete and integrated software system is evaluated to ensure it meets specified requirements.

Text Editor: A software application used for creating and editing plain text files, often employed in programming and web development.

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