Online Coffee Stock Management Tool

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ABSTRACT

The primary aim of this study is to enhance comprehension of the inventory requirements of a coffee shop. Additionally, it seeks to develop and deploy a web-based solution to enhance the effectiveness of inventory management. Furthermore, the study aims to assess this implementation's influence on the coffee shop's operational procedures. The research methodology employs a mixed-methods approach, incorporating qualitative and quantitative data-gathering techniques. This includes conducting interviews, making observations, and performing system testing. These methodologies are utilized to acquire a comprehensive understanding of the current inventory system and evaluate the effectiveness of the recently constructed web application.

The findings indicate that adopting the application substantially positively impacts inventory management. The improvement above was accomplished by implementing a system that enables the monitoring of inventories in real time, thereby mitigating errors associated with manual record-keeping and enhancing overall operational efficiency. The coffee shop employees provided favorable feedback regarding the gadget, highlighting its intuitive interface and efficiency-enhancing capabilities.

Nevertheless, it is recommended that forthcoming investigations consider the integration of predictive analytics in order to enhance the capabilities of inventory management. Developing a mobile version should also be considered to increase flexibility and user-friendliness. This study provides additional empirical support for the importance of adopting digital transformation strategies in small enterprises to address prevalent operational obstacles.

Keywords: Online, Stock Management Tool, Web
INTRODUCTION
The rapid progress of computer-based information technology has significant implications for many work-related tasks (Crawford et al., 2018; Soysal et al., 2019). Many enterprises utilize computer-based information systems to optimize the dissemination of information, enhance job efficiency, and enhance the quality of service. Using computers for data processing facilitates the digitalization of many divisions within the corporation, assisting the organization in attaining its objectives (Drake & Atkins, 2021; Singh & Verma, 2018). In contemporary times, computers fulfill diverse functions that surpass their traditional duties as tools for word processing or numerical calculations. These sources (Prakash et al., 2018; Taufik, 2021; Wibowo et al., 2022) highlight the several benefits associated with their utilization, including facilitating application and software advancements.

Inventory refers to the assortment of goods and resources a commercial entity or organization intends to sell or utilize in manufacturing (Pasaribu, 2021; Shi et al., 2023). The principal objective of inventory management is to effectively achieve equilibrium between the demand and supply of products or services. The described system is a comprehensive framework that encompasses the strategic management of inventory, encompassing activities such as acquiring raw materials and distributing finished products to clients (Chowdhury & Nanda, 2018; Puspita et al., 2020). Inventory management is closely linked to industrial enterprises and significantly impacts both financial and production aspects (Ferrari et al., 2021).

Information technology has revolutionized the operational processes of organizations, providing them with the capability to execute a wide range of tasks efficiently. In the past, organizations depended on hardcopy volumes housed in filing cabinets to fulfill their documentation requirements (Andriani & Andry, 2023; Supriyanto et al., 2022). The advent of computers has prompted numerous firms to transition towards digital data storage.

The coffee business in Sukabumi now has a data and inventory management system that utilizes disparate software applications, such as Microsoft Excel, which are not integrated. This methodology requires more organization in management and control, frequently repeating item names due to the necessity for distinct item coding. The process of generating reports is characterized by a significant investment of time, and there is a need for enhanced precision in the obtained outcomes. Work performance could be improved due to the human verification process for each data point in completed transactions, hence diminishing efficiency. Furthermore, the lack of accessible inventory
data for other personnel presents an additional obstacle, underscoring the necessity for a comprehensive system capable of furnishing said information.

The primary aim of this study is to develop a web-based inventory application specifically designed for a coffee establishment in Sukabumi.

**METHOD**

Descriptive approaches refer to research strategies that offer comprehensive and intricate descriptions of diverse contexts or events. The process entails the methodical collection and representation of fundamental information visually. While engaging in exploratory analysis, hypothesis testing, forecasting, and deductive reasoning in research is unnecessary, employing descriptive methods can enhance these elements of the study.

Researchers frequently adopt several ways to obtain information in pursuit of facts and insights. Observation serves as the initial step in the research process. The observational approach, mainly through direct observation, is widely recognized for its efficacy in gathering empirical data. This methodology involves thoroughly examining and systematically documenting relevant evidence obtained through research.

The Importance of Interviews in Research: An interview is a methodological strategy that entails using direct questioning or conducting question-and-answer dialogues with personnel, specifically managers, to uncover prevailing concerns within the Sukabumi coffee sector.

Thorough Literature Review: The present investigation comprehensively evaluates pertinent scholarly literature within the field. This methodology entails the direct gathering of essential data about the system and the acquisition of theories or resources related to the inventory system or software through an intensive reading of scholarly literature.

The analysis of literary works. This approach entails aggregating valuable resources from diverse origins to construct an inventory information system. Surveys are a commonly used research method for gathering data and obtaining insights from a sample population. Surveys are frequently employed in social sciences to collect data from a representative subset of a larger population. This method entails posing a predetermined series of structured questions to people or groups.
RESULTS AND DISCUSSION

Descriptive techniques encompass research procedures that generate comprehensive depictions or narratives of distinct contexts or events. Descriptive research is primarily distinguished by its methodical collection of fundamental information, which is presented in a simply descriptive manner. This type of study does not necessarily delve into exploring or establishing relationships, validating hypotheses, forecasting, or interpreting meanings and implications. Academic investigations exploring these facets could potentially integrate descriptive methodologies.

Following a comprehensive analysis and meticulous system design, the second stage is generally referred to as the implementation phase. This stage encompasses the initiation and implementation of the system. The present phase entails the transformation of the coded logic into the selected programming language.

In order to achieve optimal performance of this system, it is essential to incorporate three fundamental components: a) Motherboards, among other hardware components, play a crucial role in the operational functionality of computer systems. b) Various software applications, such as Dreamweaver and Windows 7, are commonly utilized. c) Brainware, also known as human resources, plays a crucial role in facilitating the efficient functioning of a business.

Certain limitations arise during this control and monitoring program's implementation phase. The developed application integrates processes for sales and purchase transactions, data input for items, and reporting on purchases, sales, and inventory. The database utilized throughout the implementation phase of this project is MySQL. Software implementation refers to the practical execution and deployment of software systems. It involves the translation of software design and specifications into

The software utilized in the development of this information system is implemented in the following manner: The operating system utilized by the author is Windows XP Professional. NetBeans IDE 7.3 is a software development environment specifically designed for Java programming. It is commonly employed in the creation of inventory information system applications. The selection of Apache friends Xampp 1.6.3 and MySQL
5.1.41 is based on their recognized speed, performance stability, and efficacy attributes. MySQL is employed as a foundational tool for constructing databases.

Microsoft Visio 2010 is a software application utilized to create various diagram designs. The topic of interest pertains to the implementation of hardware components. The successful deployment of the information system requires using particular hardware components. The necessary hardware comprises:

a. A CPU such as the Intel Pentium or a comparable alternative.

b. A minimum need of 1 gigabyte (GB) of random access memory (RAM).

c. A 250 gigabyte hard disk.

The subject of discussion pertains to 19-inch monitors. The topic of discussion pertains to input devices often used in computing, namely the keyboard and mouse. Printers are devices that produce hard copies of digital documents. They are commonly used in offices, schools, and homes for various purposes.

The purpose of the server: One of the organization's primary functions is to offer resources to its clientele. The function of this system is to oversee the transmission of data traffic for client PCs. The individuals or organizations who seek and utilize the services or products provided by a business or professional:

a. A CPU such as the Intel Pentium or a comparable alternative.

b. A minimum need of 1 gigabyte (GB) of random access memory (RAM).

c. A 250-gigabyte hard disk drive.

The subject of discussion pertains to 19-inch monitors. The keyboard and mouse are essential input devices commonly used in computer systems. Printers are devices that produce hard copies of digital documents or images. They are commonly used in homes, offices. The client's function is to interact with a server to request and receive information or services. The server computer allows clients to retrieve data for processing purposes.

The operation requires minimal resources. The Sales and Purchasing Information System, as devised by the author, operates as a standalone software rather than a client-server system by its specific functional requirements. The topic of discussion pertains to operating system platforms. In order to execute a computer-installed application, it is essential to have software that can operate and provide assistance in preserving the application's optimal functionality. Moreover, the software implementation plays a crucial role in enabling the practical utilization of the notion. The software implementations utilized encompass:
The subject of discussion is operating systems software. The present program has been developed to manage and organize the operations of computer systems. The operating system utilized by the author is Windows 7 Ultimate. Alternatively referred to as discourse markers or connectives, language link devices serve as linguistic tools for establishing connections and interconnections between distinct text segments. These devices play a crucial function.

The software application operates by converting programming language instructions into machine code, rendering it intelligible to the computer. The application has been developed using a web-based programming language.

The Implementation of Login Functionality. The primary login system is responsible for managing the menu. This chapter illustrates the application program interface, developed based on the blueprint created during the system design stage.

CONCLUSION

Based on the comprehensive examination of the gathered data and subsequent deliberations on the issues above, the following inferences can be drawn:

The Inventory Information System for a coffee shop in Sukabumi has been developed with PHP MyAdmin and Macromedia Dreamweaver software tools in conjunction with a MySQL database. The system functions on a computer that houses a wide range of data, including product details, incoming item information, customer data, order specifications, and sales records.

The Inventory Application streamlines the procedure of documenting product movement, consequently enhancing inventory stock data availability. In addition, the application incorporates a functionality that facilitates the preparation of reports, hence enhancing the promptness, accuracy, and efficiency in report creation.

The following suggestions are highly recommended.

One suggested strategy for enhancing the effectiveness of this independent Inventory Information System is to transform it into a client-server architecture framework.
REFERENCES


