iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** V **Month of publication:** May 2023

DOI: https://doi.org/10.22214/ijraset.2023.51618

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue V May 2023- Available at www.ijraset.com

Inventory Management forPharmacy

Pandav Gupta[1], Saurav Dubey[2], Shivam Pandey[3], Siddharth Chauhan[4], Neha Tyagi[5]
[1, 2, 3, 4]*Student,* [5]*Assistant Professor, Dept. Information Technology, Inderprastha Engineering College, UP, India*

Abstract: ***The project's goal is to provide a facility for managing medicine stock. It is intended for all items found within the pharmacy. This project illustrates the design and implementation of that pharmacy, which today emphasizes management as the most crucial component. It simplifies stock management while also providing sophistication to the user. It enriched pharmaceutical sector management in India because pharmaceutical management is very important in our country for patient safety through pharmacy. The pharmaceutical supply system, for example, incorporates order placement, receiving, and storing of pharmaceutical products via inventory management software that is accessible via smartphones. The pharmacy's entire data set is analyzed, including medicine, pharmaceutical instruments, and inventory management software. We must consider a practical method for effectively managing your medical store, such as an inventory system. A well-managed chemist can provide significant benefits to your company. Proper drug storage is critical for keeping track of your inventory and avoiding shortages. As a result, you can ensure that your pharmaceutical business is long-term efficient and profitable.***

I. INTRODUCTION

The main objective is to eliminate the complicated traditional method of maintaining inventory details. Inventory control is essential for every organization's long-term success. This project aims to develop an effective inventory system to manage all the details because of this. Ignoring the need for inventory can resultin the closure of any business, especially if productivity variables are not well-managed as they progress to satisfy customers' wants or preferences. Companies can meet customer demands for quality and quantity by keeping adequate inventory on hand at all times and by maintaining the quality of stock items. controlling the flow of inventory. Although automated systems have replaced manual ones for inventories over the years, there is still a need for coordination and monitoring of all these stores in a way that will boost productivity because in situations where there are multiple store exits, the efficiency and effectiveness of the system cannot be guaranteed. The goal of this paper is to create an inventory management system for pharmacies to manage local store stocks, which will be implemented in a mobile-based application environment. When new drugs or batches of drugs arrive, manual entries are made into the Pharmacy's register. Once drugs have been administered to patients, they are recorded in the registeragain.

Smaller organizations with limited space can send goods directly to the storage area ratherthan the receiving area. When a small organization has limited space, goods may be delivered directly to the stock area rather than a receiving location. The goods from the storage location are converted into finished products in the manufacturing equipment. The finished product can either be dispatched directly to the customer or returned to storage after being shipped to the customer. The inventory management system keeps track of the lot number, serial number, cost, quantity, and the dates that the goods move through each stage as they are processed.

A. Problem

The local retailers typically lack an inventory system and must complete atonne of paperwork. In contrast, businesses typically have an inventory system. Placing theappropriate materials and quantities with exact measurements takes time and requires a high level of accuracy. Also, the project's potential to scale up on its own will raise the risk, as will the processing time, which puts us in danger of losing control when several revisions, such as drop and insert, are being made. As this is our first time together, there are numerous needs that may not have been properly defined while trying to construct this kind of system. Drug stock checks and transaction documentation are currently done by hand.

II. METHODOLOGY

"Inventory Management For Pharmacy" directly impacts the general public's health. The user's module is yet another crucial aspect of "Inventory Management For Pharmaceutical." It limits access for various user groups. This module's implementation is intended to allow users to reserve features with no effort management. The authentication can be applied in several circumstances. The admin user can maintain the list of medications, keep an eye on stock levels, and perform other duties.

©IJRASET: All Rights are Reserved

Also, while using admin authentication, the user must control all operations, from monitoring the pharmaceutical inventories to modifying the inventories and medical lists. As an alternative, this enables users to utilise the software to track activity and set up accounts. This system was developed using a descriptive methodology so that people may comprehend it without having any prior knowledge of technology or programming.It simultaneously maintains a number of things.

A. Scope of the Project

In the future, an inventory system might be used for a variety of tasks, including valuing goods. Investing your resources wisely while exercising control and judgement in your idea. You should be aware of sales qualities like size, colour, material, fragrance, and other aspects to be more prepared.

1) It includes a function that allows users to turn off features that are not used by them.
2) It meets the needs of the user.
3) Users and operators can understand it because it is simple.
4) Compared to other systems, this application is more efficient at managing data, ensuring both its security and accessibility.
5) It ought to be simple to use.
6) Have a user-friendly interface.
7) It ought to be able to grow.
8) increased effectiveness and productivity.
9) a comprehensive strategy for quality control.
10) Managing inventory is easy.

III. PROJECT ANALYSIS

1) Web-Based Online Inventory Information System is too sophisticated for us to comprehend the logical and networking design of the system. Also, we are unable to do a search because ES Soegoto1 - Departemen Manajemen, AF Palalungan's system does not support the idea of applying filters.
2) Rafat Ara, Md. Abdur Rahim Lecturer- Department of Computer Science & Engineering says that there is no alert function for getting notified when an item is out of stock while using an online inventory management system.
3) Examining pharmacy inventory management should consider the following elements: Inventory shrinkage is influenced by the following four factors: product type, return policies, unclaimed prescriptions, and use of formularies.
4) 5% or more of community pharmacy sales are lost to inventory shrinkage, also known as robbery, shoplifting, and theft. The main factor contributing to the depletion of public pharmacies is employee theft.
5) The safety of patients is seriously threatened by improper handling of pharmacy inventory. Pharmacists should take pharmacy inventory management into account when deciding whether a medication error or other problems are related to drug therapy.

IV. LITERATURE REVIEW

A. Inventory Management by Prof. Manjusha Talmale, Rina Maraskolhe, Roshni Selokar, and Punam Khobragade.

Technology in use: The Windows application Inventory Management System, which focuses on inventory control and creates the many necessary reports, was created for Windows operating systems.
Problems: What inventory management issues is Indus having? Which inventory management strategy is best for Indus? Why? What should the upper limit be?

B. Anjali Mishra and Harshal Anil Salunkhe oversee inventory.

The study's methodology consisted of in-depth interviews with business financial executives, an on-site investigation, and a review of the annual report. While secondary data was gathered from numerous papers and books, primary data was gathered by the company's finance officers. Although the organization's current inventory management system is effective, it can be made better by using some fresh inventory management strategies. The company ought to make an effort to incorporate more inventory management strategies, such as the Just In Time (JIT) inventory system.

C. Tariq Hussain Sheikh and Nazar Sohail are in charge of inventory.

Inventory management is an issue for supply chain management. Companies must keep merchandise in warehouses to meet client needs, but doing so comes at a cost that puts a financial freeze on their accounts and leaves them open to losses.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

D. Inventory control by Md. Abdur Rahim and Rafat Ara.

The article discusses inventory management software that can be used to successfully automate the manual tasks of the printing industry. This system automatically creates a number of crucial reports. Although the organization's current inventory management system is effective, it can be made better by using some fresh inventory management strategies. The company ought to make an effort to incorporate more inventory management strategies, such as the Just In Time (JIT) inventory system.

E. Nazar Sohail and Tariq Hussain Sheikh's inventory management

Supply chain management show some challenges regarding inventory management. Companies must keep goods in warehouses to satisfy client needs, yet keeping inventory costs money and leaves firms exposed to losses.

F. Rafat Ara and Md. Abdur Rahim's Inventory management

The paper discusses inventory management software that can be used to successfully automate the manual tasks of the printing industry. This system automatically creates a number of crucial reports.

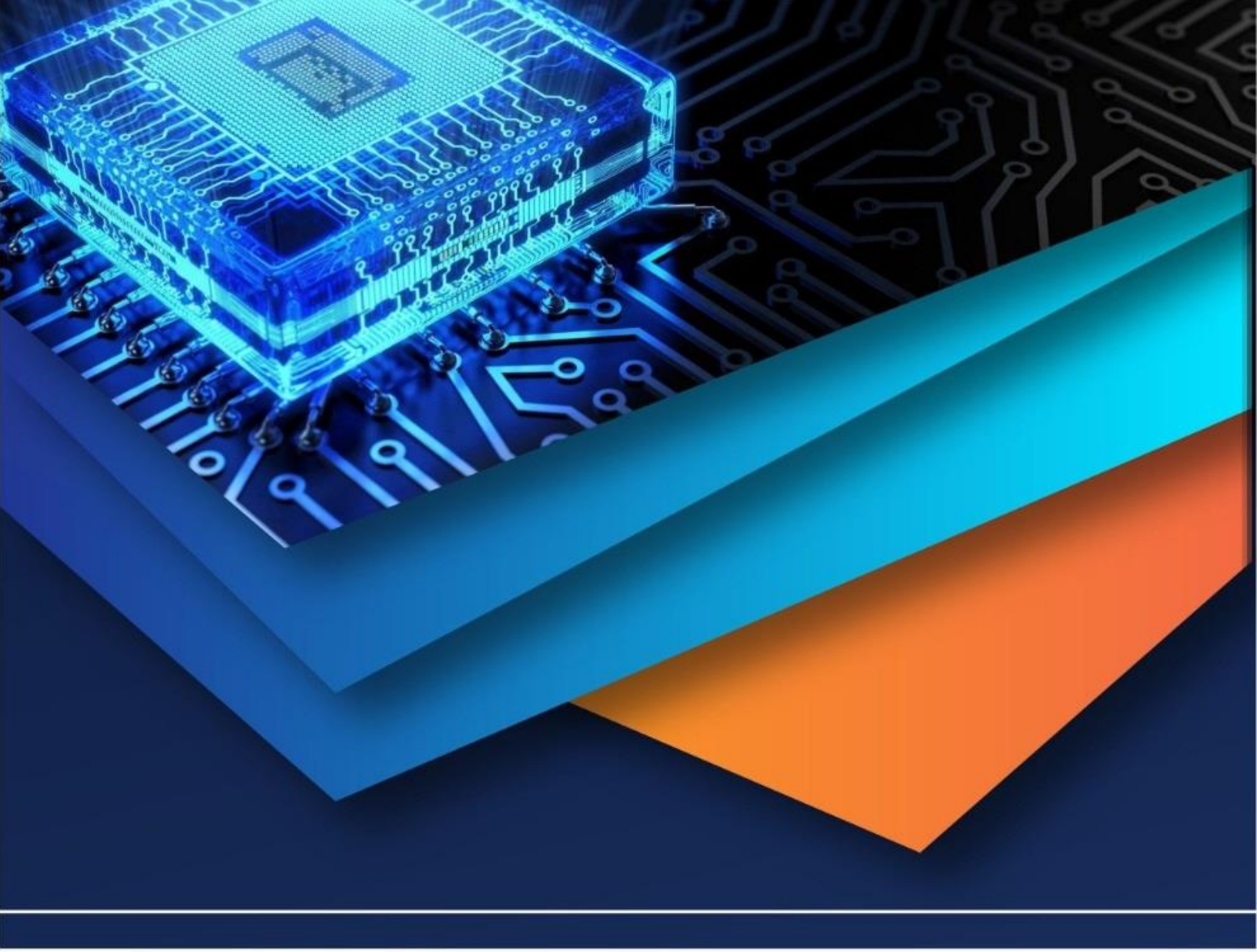
V. CONCLUSION

New technology makes our lives easier and more efficient.Users can add authentic information, that is why this system is errorless, so no computer error will occur and hence it will also reduce human error. It resolves the challenges that come under the management of pharmacy in people's view. Currently, management is one of the most important features of all forms, as it enables us to perform any task in any form. Pharmacy management systems. As a first step, we have incorporated 'Alert Notification' technology in this project that will enable us to detect the expiry date and other information about related medicines using the alert notification reader. According to the findings of this study, an adequate pharmaceutical management system is not yet ready for conceptualization. It necessitates research that takes into account all of the interests of numerous parties, including the government. Many challenges await the pharmacy as it continues on its path of improvement. When the research assistant is no longer there to assist with data collection, how will the organization find time to do the problem solving and system redesign work? Furthermore, only a few department employees were involved in the changes. How can they train and onboard a critical mass of employees? A third challenge is that many of the "problems" the pharmacy faces are tied to its relationships with other departments, and often the best solutions are found in changing how other departments perform their work.

REFERENCES

[1] B.Kurniawan and M.Ikhsan, "Building IT-based Pharmacy: Computerised Pharmacy Management", 2018. Building an IT-based Pharmacy Computerised Pharmacy Management IOPscience is now available.
[2] Mutale W, Vardoy-Mutale A-T, Kachemba A, Mukendi R, Clarke K, Mulenga Leadership and management training as a catalyst to health system strengthening in low-income setting: evidence from the implementation Zambia management and leadership training for district health managears. PLOS ONE.2017;12(7): e0174536. https://doi.org/10.1371/journal.pone.0174536.
[3] Inventory Management System accessed, On 26 September 2021 by Punam Khobragade,Roshni Selokar, Rina Maraskolhe and Prof.ManjushaTalmale https://www.Academia.Edu/36847845/Research_paper_on_inventory_management_system.
[4] An Online Based Inventory Management System Implementation, In Printing accessed in Sept. 2021 by Rafat Ara, Md. Abdur Rahim. https://Iopscience.Iop.Org/Article/10.1088/1757-899x/879/1/012125.
[5] Case Study on an Android Application For Inventory Management System With Sales Prediction for Local Shopkeeper In India accessed On 26 September 2021 by TejalTandel, SayaliWagal, Nisha Singh, Rujata Chaudhari, Vishal Badgujar, https://Ieeexplore.Ieee.Org/Document/9074234.
[6] On September 28, 2021, Yitayew Alemu accessed Inventory Management Practise in the Case of Arba Minch University. Https://Www.Grin.Com/Document/381182.
[7] Research Portfolio For Inventory Management And Production Planning System accessed On 27 September 2021 by Harvey M. Wagner. https://Www.Jstor.Org/Stable/170396.
[8] "Impact of a Pharmacy Management Course for Pharmacists Working Within Brazil's Public Health System" by Fernanda Manzini, Ph.D., Andrigo Antonio Lorenzoni, MSc, Luciano Soares, Ph.D., Norberto Rech, MSc, Silvana Nair Leite, Ph.D., Brazil, Federal University of Santa Catarina, Florianopolis, accessed on December 2021.
[9] Aroni A on 2012:31, Health management capacity building: an indispensable component of health system improvement.
[10] Towards better leadership and management in health: report of an international consultation strengthening leadership and management in low-income countries 29January,1 February, Accra, Ghana. Geneva: World Health Organization; 2007 https://apps.who.int/iris/handle/10665/70023.
[11] Filerman G. Closing the management competence gap. Hum Resource Healths 2003:1(1):7
[12] Liang Z, PF Howard, S Leggat, and T Bartram. Competencies in health cares management are being developed and validated. Journal of Health Organization Management, 2018.

[13] On 1999, JB Jun, SH Jacobson, and JR Swisher. A survey of the use of discrete-eventsimulation in healthcare facilities. The Journal of the Operational Research Society, volume 50, pages 109-123.
[14] C. Wong, G. Geiger, Y. Derman, C. Busby, and M. Carter. In an acute care academic health sciences facility, the medication ordering, dispensing, and administration procedure is being redesigned. S. Chick, P. J. Sanchez, D. Ferrin, and D. J. Morrice (eds), Proceedings of the 2003 Winter Simulation Conference, 1894-1902.
[15] Assistant Professor Asan Baker Kanbar, Hawbir Latif Abdulqadir, and Rezhan Mohammad Ahmed Computer Science Department Cihan University/Sulaimaniya, Iraq" Designing a Computerized Pharmacy Management System with computerised pharmacy management system with a stock alert system for inventory researchgate.net.
[16] Computer Engineering Department/University of Technology_ saja_alzubaidy@yahoo.com, "Hospital Pharmacy Management System" (PDF) PHARMACY MANAGEMENT SYSTEM IN HOSPITAL (researchgate.net).
[17] S. Gagnon and V. Nabelsi. (2017). RedesignInformation technology plan for patient-centered, lean, and agile hospital pharmacy and medical equipment supply chain integration. 55(14), 3929-3945, International Journal of Production Research.
[18] J. P. Gagnon and W. J. Bicket. (1981). Purchase and stocking management in hospital pharmacies. Aspen Systems Corporation,Topics in Hospital Pharmacy Management1(2), pp. 11-26.
[19] Ferkovic, T. J. (1983). Inventory management tools in hospital pharmacies.5(2), 70-77, Hospital Material Management Quarterly.
[20] F. M. Asri, Jonrinaldi, and A Muluk. (2020). A suggested policy for medication inventory system installation in pharmacies



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)