Dissertation Training

at

EYEQ Hospital Pvt. Ltd, Gurugram, Haryana

To Study The Impact Of Process Automation On Efficiency And User Acceptance: Digitalization Of EYEQ Hospital Supply Chain

.

By

Miss. Alida Roy Palappilli

PG/21/010

Under the guidance of

Dr. Nidhi Yadav

PGDM (Hospital & Health Management)

2021-23

International Institute of Health Management Research New Delhi

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International Institute of Health Management Research New Delhi

(Completion of Dissertation from respective organization)

The certificate is awarded to

Miss. Alida Roy Palappilli

in recognition of having successfully completed her Internship

at IIHMR, Delhi

and has successfully completed her Project on

To Study The Impact Of Process Automation On Efficiency And User Acceptance: Digitalization Of EYEQ Hospital Supply Chain

Date- February to April, 2023

EyeQ Vision Pvt Ltd, Gurgoan, Haryana

She comes across as a committed, sincere & diligent person who has

a strong drive & zeal for learning.

We wish her all the best for future endeavours.

EYEQ VISION PRIVATE LIMITED GURGAON

Supply Chain Manager

Head-H[illegible] Resources

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Miss. Alida Roy Palappilli**, student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at **EYEQ Hospital Pvt.Ltd** from **2nd February to 30th April, 2023.**

The Candidate as successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical. The Internship is in fulfilment of the course requirements. I wish her all success in all her future endeavours.

Dr. Sumesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Dr. Nidhi Yadav
Assisstant Professor
IIHMR, New Delhi

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CERTIFICATE ON PLAGIARISM CHECK

Name of Student (in block letter)	~~Dr./Mr./Ms.~~: ALIDA ROY PALAPPILLI		
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Course Specialization (Choose one)	Hospital Management	~~Health Management~~	~~Healthcare IT~~
Name of Guide/Supervisor	Dr / ~~Prof.~~: NIDHI YADAV		
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Name: Dr Nidhi Yadav

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FEEDBACK FORM

Name of the Student: Miss. Alida Roy Palappilli

Name of the Organisation in Which Dissertation Has Been Completed: EYEQ PVT. LTD, HARYANA

Area of Dissertation: TO STUDY THE IMPACT OF PROCESS AUTOMATION ON EFFICIENCY AND USER ACCEPTANCE: DIGITALIZATION OF EYEQ HOSPITAL SUPPLY CHAIN

Attendance: Adherence to Dissertation norms

Objectives achieved:
Yes

Deliverables:
Completely Met.

Strengths:
Communication and Co-operative and have enthusiasm on new learning.

Suggestions for Improvement:
Should involve real time exposure across various industry.

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

EYEQ VISION PRIVATE LIMITED GURGAON

Signature of the Officer in Charge, Organisation Mentor (Dissertation)

Date:

Place: Gurgaon-Haryana

Certificate of Approval

The following dissertation titled **"To Study the Impact of process automation on Efficiency and user acceptance: Digitalization of EyeQ Hospital Supply Chain"** is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of the dissertation.

Name	Signature
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Certificate from Dissertation Advisory Committee

This is to certify that **Miss.Alida Roy Palappilli,** a graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. She is submitting this dissertation titled "**TO STUDY THE IMPACT OF PROCESS AUTOMATION ON EFFICIENCY AND USER ACCEPTANCE: DIGITALIZATION OF EYEQ HOSPITAL SUPPLY CHAIN**" at "**EYEQ Hospital Pvt. Ltd "** in partial fulfilment of the requirements for the award of the **PGDM (Hospital & Health Management).**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Nidhi

Dr Nidhi Yadav,
Assistant Professor,
IIHMR, New Delhi

ACKNOWLEDGEMENT

I would like to extend my heartfelt thanks and deep appreciation to all those who have played a part in the successful completion of this research project. It has been an honor and a privilege to collaborate with such an exceptional group of individuals, and I am genuinely grateful for their unwavering support and invaluable assistance throughout this journey. Their contributions have been instrumental in bringing this project to fruition, and I am truly grateful for their dedication and commitment.

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I am also deeply grateful to Mr. Ajay Singh for their invaluable guidance in designing the study and overcoming any challenges that arose during the research process. Their patronage and support have been crucial to the successful completion of this work.

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I would also like to express my heartfelt thanks to the EYEQ supply chain team for their unwavering support and cooperation. Despite their busy schedules, they took the time to listen, guide, and provide me with the necessary resources to carry out my project at their esteemed organization. Their involvement and assistance during the training period were invaluable.

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Lastly, I would like to express my heartfelt thanks to all those who have dedicated their valuable time, offered their help, and provided support and guidance throughout this project. Your contributions have played a significant role in its completion, and I am truly indebted to you al

ORGANIZATON OVERVIEW

The Eye-Q hospital chain, led by the renowned eye surgeon Dr. Ajay Sharma, is dedicated to delivering the highest quality eye care services at affordable prices throughout India. As an ISO 9001-2015 registered organization, Eye-Q operates a network of 30 domestic Super-Speciality Eye Hospitals across Delhi-NCR, Haryana, Uttar Pradesh, Uttarakhand, and Gujarat, along with two hospitals in Nigeria, Africa.

Vision:

To be India's foremost chain of eye Hospital in terms of both Quality of eye care and the Number of patients handled.

Mission:

To make every patient an Ambassador for Eye-Q through a combination of: -

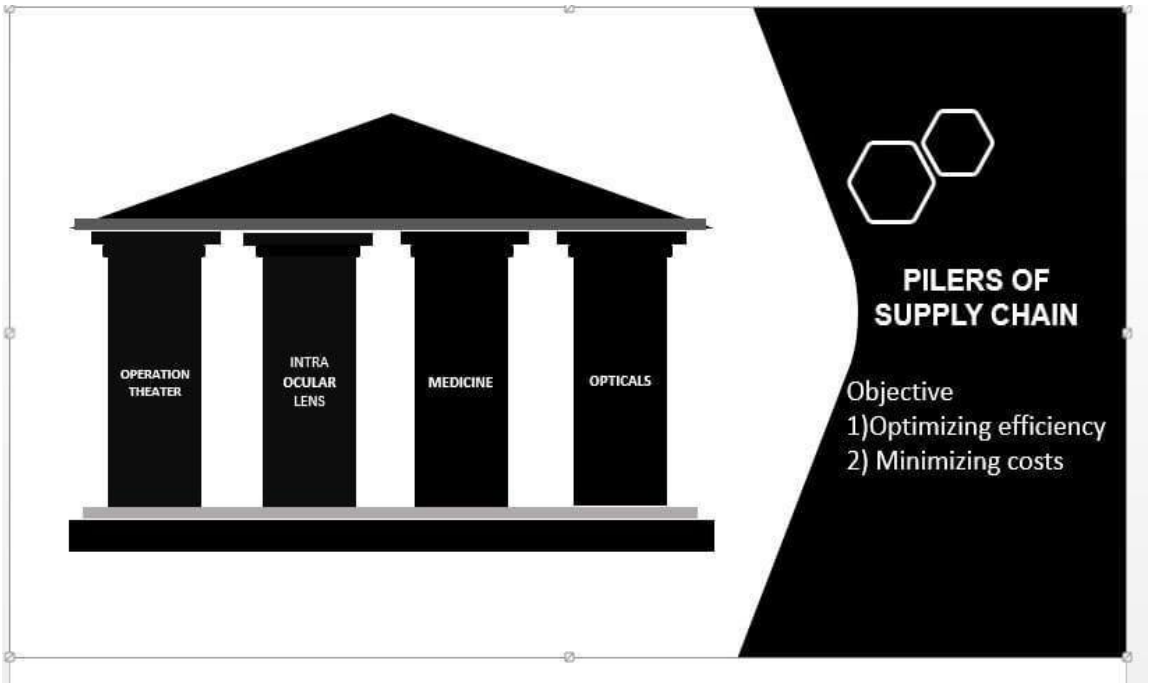
- Highest level of quality and technology in eye care.
- Exceptional personal care.
- Complete integrity to the patient and his/her needs

VALUES

- Be honest and open in my communication and do what I say I will do
- I accept our individual & team responsibility and meet my commitments each & every time
- Our clinical & non clinical team is supportive of each other's efforts and care for each other
- Give care, compassion & respect to patients and colleagues as I expect for myself
- Will make conscious effort to contribute in creating a social impact
- Will embrace and drive positive change
- I will feel Proud of Eye Q

SUPPLY CHAIN EYEQ

Supply Chain Management is a systematic approach encompassing the strategic coordination and oversight of procurement, transportation, storage, and distribution activities, ensuring efficient and effective flow of materials and products from suppliers to customers



SOFTWARE IN EYEQ SUPPLY CHAIN

The INTRANET software provides a provision to create real-time reports on sales details, purchase details, and stock in hand, among other day-to-day activities. It facilitates processes such as goods receiving note (GRN) for intake of goods, placing purchase orders, and supplying end products to consumers. However, it is important to note that the software has a limitation in generating an aging report.

The implementation of the "Dashboard for Analytical Review of Projects Across the Nation" (DARPAN) has resulted in several significant outcomes and improvements in project monitoring and data analysis. The dashboard successfully transforms complex organizational data from the Health Management Information System (HMIS) into visually appealing charts, providing the technical administration with real-time, dynamic

project monitoring capabilities without the need for coding or programming. By combining multiple data sources into a centralized and user-friendly platform, DARPAN enhances analytical capabilities and allows for a comprehensive view of projects across multiple departments. The dashboard efficiently identifies trends and facilitates a better understanding of district-level projects. Moreover, it presents information in an objective and quantifiable manner, enabling the technical administration to assess not only project successes but also pain points and areas for improvement.

The implementation of the ADP portal as an attendance marking system has resulted in improved efficiency and convenience for employees. The portal serves as a dashboard that allows employees to mark their attendance and provides additional features for tax submission.

The implementation of the EyeQuick software as a ticket raising portal has significantly improved communication and workflow efficiency between distributors and departments within the organization. The software serves as a platform for distributors to raise tickets and communicate their requirements, facilitating seamless interactions between inter and intra departments

INTRODUCTION

Process automation has emerged as a transformative force across industries, including the healthcare sector. In recent years, there has been a growing emphasis on digitalizing supply chain processes in healthcare organizations. The integration of digital technologies and data-driven solutions holds tremendous potential for revolutionizing healthcare supply chains, leading to improved efficiency, transparency, and patient outcomes.

The concept of process automation in healthcare supply chain involves the digitization and automation of various tasks and processes involved in procurement, inventory management, distribution, and delivery of healthcare products, equipment, and services. This encompasses a wide range of activities, including managing pharmaceuticals, medical devices, equipment maintenance, as well as the handling of patient records and information.

Within a healthcare establishment, logistics activities are multifaceted, involving both an external logistics chain and an internal logistics chain. These chains are responsible for transporting various products from suppliers to points of use within the organization, as outlined in the Internal Regulations of Hospitals (2010). Hospital logistics, defined as the management of patient flow, products and materials, services, and related information, plays a crucial role in ensuring the provision of high-quality and safe patient care., as highlighted in the SNFS VD April 2021 report.

Figure 1 provides an overview of the different elements involved in the hospital logistics process.

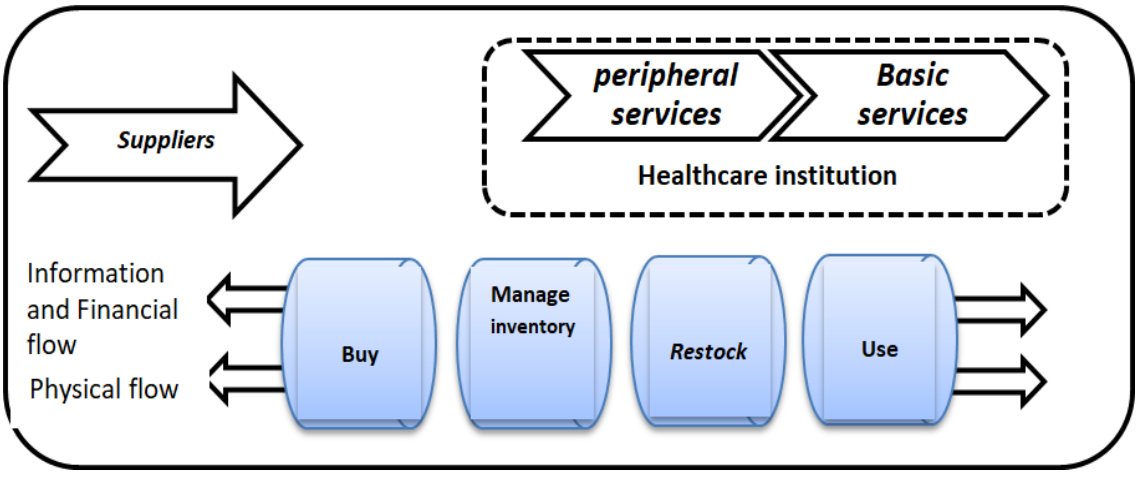


Figure 1.2: Components of the hospital logistics process

In today's digital era, the digitalization of supply chain processes in eye hospitals holds great potential for enhancing efficiency and patient satisfaction. By adopting digital solutions, eye hospitals can benefit from increased efficiency in managing the flow of goods and services, reducing lead times, and improving supply chain transparency. These improvements contribute to overall cost reduction and faster delivery, positively impacting patient satisfaction.

One key advantage of digitalization is improved data accuracy and transparency. Real-time data collection and analysis enable greater visibility into the entire supply chain, supporting accurate demand forecasting and inventory management. This enables hospitals to optimize their operations, avoid stock-outs, and streamline their supply chain processes.

Moreover, digitalization fosters better collaboration among stakeholders involved in the supply chain, including suppliers, manufacturers, and hospital staff. By sharing real-time data, they can work together to identify and address issues promptly, reducing delays and improving overall efficiency.

The benefits of digitalization and user acceptance extend to patient satisfaction. The improved efficiency, data accuracy, and transparency result in shorter wait times for procedures, faster medication delivery, and an enhanced overall patient experience.

Digitalization also enables traceability and safety in the supply chain. Technologies such as block-chain create an immutable record of transactions and product movements, ensuring the authenticity, quality, and safety of healthcare products. This reduces the risk of counterfeiting and enhances the integrity of the supply chain.

Furthermore, digital technologies provide tools for demand forecasting and planning. Advanced analytics, machine learning, and AI algorithms analyse historical data, market trends, and patient demographics to predict future demand accurately. This empowers organizations to optimize their production, procurement, and distribution processes

The successful implementation and acceptance of hospital information systems (HIS) are essential for optimizing supply chain management and enhancing overall healthcare delivery. These comprehensive and specialized information systems are instrumental in efficiently managing the functional aspects of hospitals. By providing a centralized platform for storing and processing various types of data, including vital inventory information, comprehensive reports, and crucial inventory decisions, HIS greatly contribute to streamlining operations and improving patient care.

However, the implementation of HIS is not without its challenges. One of the significant hurdles is the complexity associated with these systems, which may require healthcare professionals to adapt to new technologies and workflows. Resistance from healthcare professionals towards the adoption of HIS can hinder the successful implementation and utilization of these systems.

The successful adoption of Health Information Systems (HIS) relies heavily on planned training and support for users. To effectively manage the development and implementation of HIS, strategies should prioritize user engagement and provide strong organizational support throughout the process. These factors are instrumental in

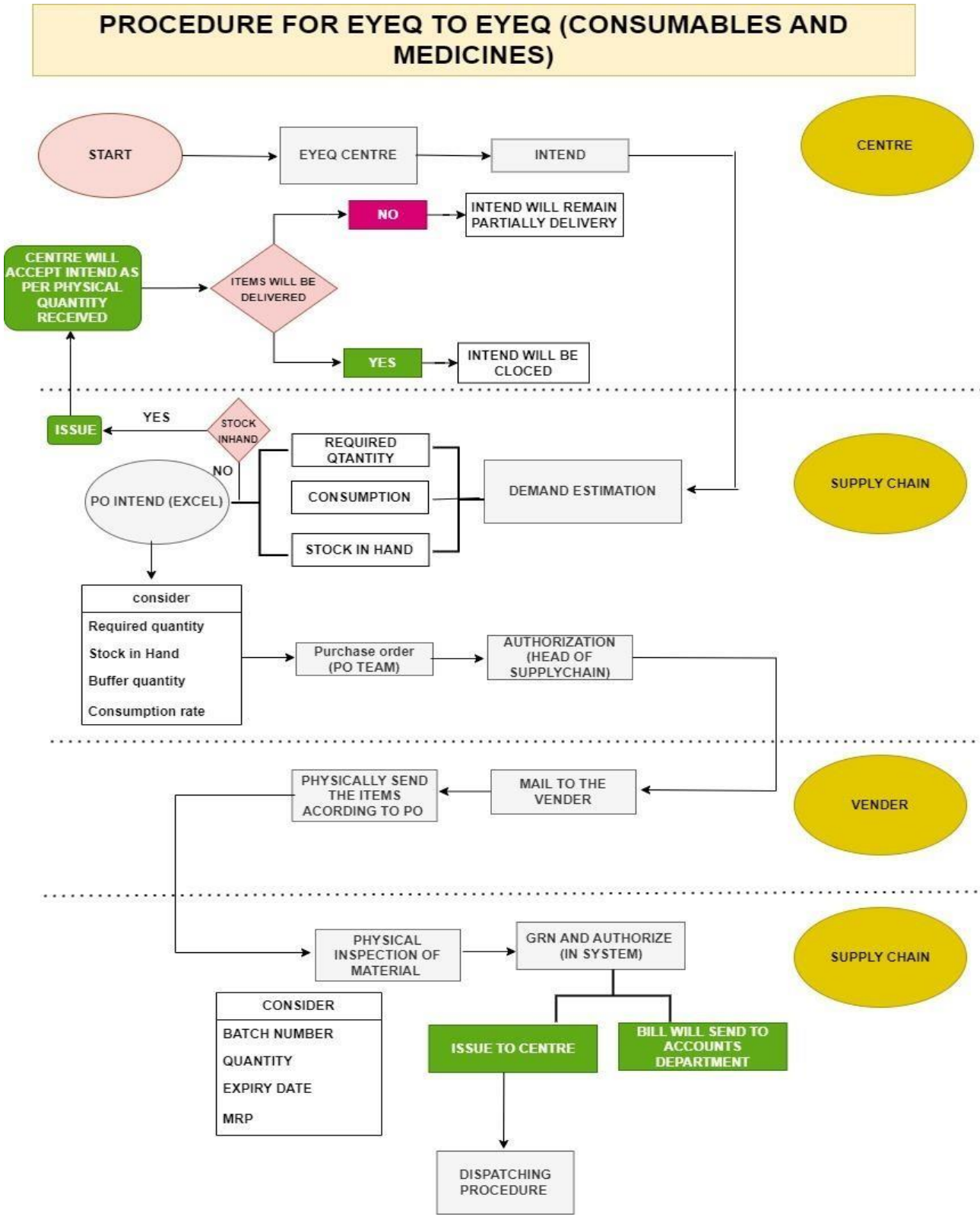
eliminating resistance, alleviating negative attitudes, and ultimately increasing user acceptance of HIS.

Furthermore, the usability of HIS software plays a critical role in influencing user acceptance. Designing user-friendly software that meets the needs of information and knowledge professionals, including those in the healthcare domain, presents a challenge that extends beyond the healthcare industry itself. Barriers in data exchange and integration between different modules result into adversely in implementing and working. The simultaneous use of electronic and paper-based systems often requires healthcare professionals to switch between these systems, resulting in slower workflow and the need for manual data entry.

Customization and tuning of HIS systems are also complex and time-consuming activities that require substantial support from various department such as backhand support, software. Despite remarkable advancements in hardware and software capabilities, the underutilization of information systems remains a significant concern in both research and practice.

In order to address these challenges, it is essential to gain a deep understanding of how users accept information systems. The Technology Acceptance Model (TAM) has emerged as a reliable and influential framework for explaining user acceptance of information systems. According to TAM, an individual's aim to use a system is influenced by two primary factors: perceived usefulness, which refers to the extent to which the system enhances job performance, and perceived ease of use, which relates to the effort required to use the system. External variables like training indirectly impact usage intentions by affecting perceived usefulness and perceived ease of use. By taking these factors into consideration, organizations can effectively address user acceptance and successfully implement information systems.

Fig: 1.3: PROCESS FLOW OF SUPPLY CHAIN IN EYEQ HOSPITAL



NEED OF THE STUDY

This study aims to address the need for information regarding data accuracy, transparency, collaboration, and user acceptance in the context of process automation within the hospital's supply chain. By undertaking this study, we will acquire valuable insights into the potential advantages and obstacles connected to process automation.

The study will provide information on the accuracy and transparency of data within the supply chain processes, ensuring reliable and trustworthy information for decision-making. Additionally, it will explore the level of collaboration among different stakeholders involved in the supply chain, fostering effective communication and coordination.

Furthermore, the study will assess user acceptance of the process automation implementation, considering factors such as user resistance, satisfaction, and willingness to adopt the new system. By understanding these factors, strategies can be developed to overcome resistance, improve user acceptance, and enhance overall system performance.

Ultimately, the study aims to contribute to the successful implementation and utilization of process automation in the hospital's supply chain. By addressing challenges, improving user acceptance, and enhancing supply chain efficiency, the study seeks to improve operational efficiency and ultimately lead to better healthcare outcomes and patient satisfaction at EyeQ Eye Specialty Hospital

Objectives of the study

The primary objective of this thesis is to identify and analyse the impact of process automation on supply chain efficiency at EyeQ Eye Specialty Hospital. Specifically, the study aims to examine how the implementation of process automation in the hospital information system (HIS) affects the efficiency of the supply chain processes.

Sub-objective: Additionally, the thesis aims to assess the user acceptance of the HIS at EyeQ Eye Specialty Hospital. It seeks to understand the resistance level, acceptance, and satisfaction on end users regarding the implementation and upgrading of the HIS.

By addressing these objectives, the thesis aims to provide insights into the impact of process automation on supply chain efficiency and the user acceptance of the HIS. The findings will contribute to understanding the challenges and opportunities associated with implementing and upgrading the HIS, ultimately guiding improvements in the hospital's supply chain processes and enhancing user satisfaction.

SCOPE OF THE STUDY

Process Automation: The study will focus on understanding various process automation technologies and techniques employed in the digitalization of the EyeQ Hospital supply chain. This includes robotic process automation (RPA), machine learning, artificial intelligence (AI), and other relevant automation tools.

Efficiency Improvement: The thesis aims to investigate the impact of process automation on the overall efficiency of the hospital supply chain. It will explore how automation streamlines manual and repetitive tasks, reduces processing times, enhances order accuracy, optimizes inventory management, and improves resource allocation.

User Acceptance: The study will assess the level of user acceptance and adoption of process automation within the EyeQ Hospital supply chain. It will investigate factors influencing user acceptance, such as perceived usefulness, ease of use, training, support, and user involvement in the automation implementation process

CHAPTER -2

LITERATURE REVIEW

The digitalization of the hospital supply chain through process automation has emerged as a transformative approach to enhance efficiency and improve user acceptance in healthcare organizations. This literature review explores the impact of process automation on supply chain efficiency, the benefits of digitalization, and the significance of user acceptance in successful implementation.

Process automation refers to the use of technology to automate manual and repetitive tasks within supply chain processes. By reducing human errors, enhancing productivity, and optimizing resource allocation, process automation has been shown to positively impact supply chain efficiency (Li et al., 2017). Automation can lead to reduced cycle times, improved order accuracy, and enhanced inventory management, resulting in cost savings and increased customer satisfaction.

Digitalization brings numerous benefits to the hospital supply chain, including efficient inventory management and reduction in stockouts and wastage. Real-time data analytics and predictive modeling enable demand forecasting and inventory optimization, ensuring the availability of critical medical supplies (Bollapragada et al., 2019). Additionally, digitalization enhances transparency, traceability, and accountability, reducing errors and ensuring compliance with regulations (Ivanov et al., 2020). These improvements in supply chain performance contribute to better patient care outcomes and cost savings for healthcare organizations.

Digitalization allows for the automation of manual and repetitive tasks, leading to reduced processing times, improved order accuracy, and enhanced productivity (Kannan et al., 2017). By integrating digital technologies into procurement, inventory management, and distribution processes, healthcare organizations can achieve cost savings and improved service levels. Forms of process automation, such as robotic process automation (RPA), machine learning, and artificial intelligence (AI), offer various avenues to enhance efficiency and effectiveness (Chen et al., 2018).

The digitalization of the hospital supply chain also has implications for patient safety and care quality. Real-time visibility and accurate inventory management ensure the availability of essential medical supplies, reducing the risk of stockouts or expired products (Vonderembse et al., 2018). Digital technologies enable efficient tracking and monitoring of product recalls, ensuring patient safety and minimizing potential harm from defective or unsafe products (Li et al., 2020).

User acceptance plays a crucial role in the successful implementation of process automation initiatives. The Technology Acceptance Model (TAM) proposed by Davis (1989) provides insights into user acceptance of technology. Perceived usefulness and ease of use are key factors influencing user acceptance. User training, support, and involvement in the automation implementation process are emphasized as important strategies to enhance user acceptance and minimize resistance (Lee et al., 2019).

CHAPTER -3

METHODOLOGY:

This study utilizes a mixed-method approach to comprehensively assess the performance and user satisfaction of the Healthcare Information System (HIS) in the supply chain department of EYEQ Vision Pvt Ltd. The study employs both quantitative and qualitative data collection methods.

The study area is EYEQ Vision Pvt Ltd, specifically focusing on the supply chain department. The exclusion criteria ensure employees from other departments are excluded. The inclusion criteria encompass all employees within the supply chain department.

The data collection for this study will be conducted using the EYETECH software, which is a versatile tool that enables the collection and analysis of both quantitative and qualitative data. In addition to utilizing this software, the study will also develop and validate a questionnaire specifically designed to gather objective quantitative data from the users of the Health Information System (HIS) in the supply chain department.

The questionnaire will consist of five sections to cover various aspects of user perspectives and experiences with the HIS. The first section will focus on capturing general user information, such as age, gender, job type and the specific HIS module used by the participants. This part aims to provide essential context for analysing user perspectives.

The second section of the questionnaire will include ten statements that assess the general assessment of the HIS. Participants will be asked to rate their agreement with each statement using a classic five-point Likert scale format, ranging from "strongly agree" to "strongly disagree." This section will provide quantitative data for evaluating the performance of the HIS.

The third section will consist of three statements focusing on the Adequacy and Usability of desktop/laptops within the hospital. Participants will rate their agreement using the Likert scale format, providing quantitative insights into this specific aspect of the HIS.

The fourth section will comprise six statements assessing user satisfaction with the HIS. Participants will rate their satisfaction levels using the Likert scale format, allowing for quantitative analysis of satisfaction levels.

To ensure a comprehensive understanding of the user perspectives, the questionnaire will include an open-ended question in the final section. This question will invite participants to provide suggestions for improving the performance, acceptance, and satisfaction of the HIS among users. This qualitative data will add depth to the study's findings and provide valuable insights.

The target population for this study will consist of 12 staff members in the supply chain department who are actively using the HIS. In order to achieve a 100% response rate, the survey questionnaire will be created in an electronic format and made available online. A questionnaire link was sent by email to all employes in the population targeted. Additionally, participants will be notified about the Emphasis/consequence of the study

survey, encouraging their active participation and ensuring a representative sample for the study

CHAPTER 4

DATA ANALYSIS AND RESULT

The statistical analyses for this study were conducted using Excel, which facilitated both descriptive and inferential statistics. The valid responses obtained for the study was 12 participants in total, indicating a response rate of 100%.

Table 4.1 presents the distribution and percentages of users grouped by level of employee experience. The results reveal that a small proportion (8%) of participants had more than 10 years of experience, while the majority (92%) had <2 years, 2-5 years, or 6-10 years of experience.

Table 4.1: Users Distribution and Percentages – Sorted by Their Experience

EMPLOYES EXPERIENCE	NUMBER	PERCENTAGE
<2 YEARS	3	25%
2 -5 YEARS	5	42%
6-10 YEARS	3	25%
>10 YEARS	1	8%

Table 4.2 The data presents the distribution and percentages of Healthcare Information System users categorized by their age of employee. It reveals that a majority participants (83%) are within the 25-50 age range.

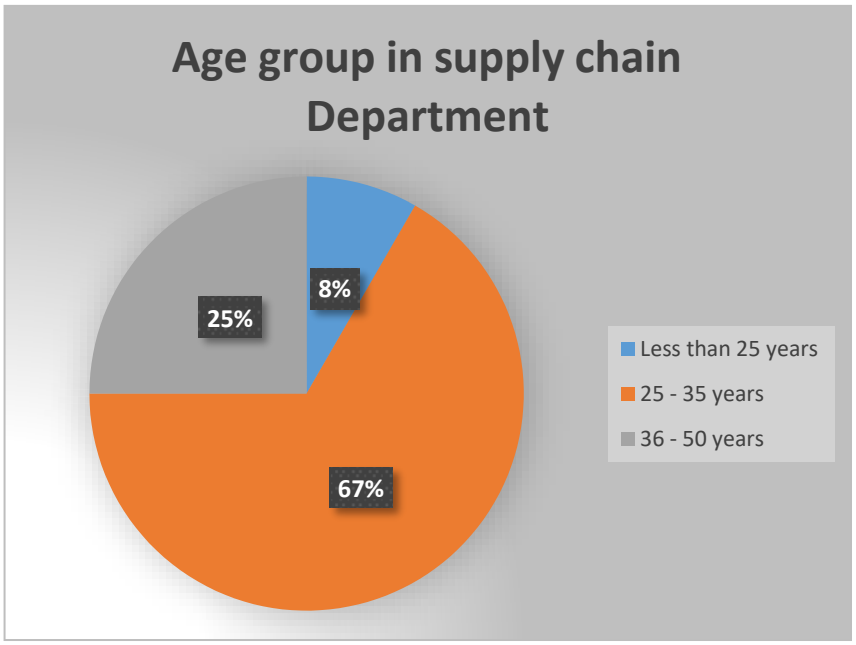
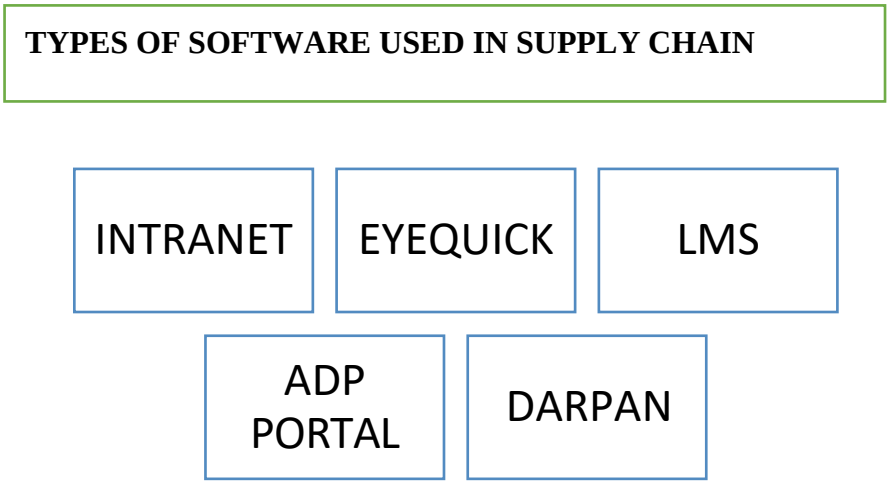


Fig 4.2: Users Distribution and Percentages – Categorized by Their Age Groups.

Fig 4.3: Shows HIS user acceptance and satisfaction factors sorted ascending by users' responses

User Acceptance & Satisfaction Statements	ANSWER
Overall, I am satisfied with the performance of the Health Information System (HIS).	NEUTRAL
The speed of HIS performance is acceptable.	DISAGREE
Is HIS user friendly and Accessible	DISAGREE
Do HIS gives sufficient information	AGREE
Is HIS provides accurate data	AGREE
The screen layouts of HIS are appropriate.	DISAGREE
HIS provides adequate and latest information	NEUTRAL
Do my day to day needs are optimized by HIS	NEUTRAL
HIS provides Understandable or distinct information	AGREE
Is the fonts of HIS and characters are simple to understand and read	AGREE
The overall score for the general assessment of HIS is indicated.	DISAGREE
Regarding laptop computers:	AGREE
Computers were always available the time are needed	AGREE
Regarding desktop computers:	NEUTRAL
The overall score for the availability of computers in the hospital is indicated.	AGREE
I am prepared for system breakdowns	DISAGREE
System disruption procedure is Evident and comprehensive	DISAGREE
The existing training materials for the HIS are beneficial.	NEUTRAL
I am content with the assistance offered to users of the Healthcare Information System (HIS).	NEUTRAL
I am contentment with automation	NEUTRAL
Training provided is sufficient on system automation	NEUTRAL
Users' Satisfaction Overall Score	**NEUTRAL**

FIG: 4.4 :TYPES OF SOFTWARE USED IN SUPPLY CHAIN



CHAPTER 5

FINDINGS

The implementation of the INTRANET software has significantly improved the efficiency and accuracy of various day-to-day activities within the organization. The real-time reporting feature allows for timely access to critical information, such as sales details, purchase details, and stock in hand. This enables the management and staff to have up-to-date insights into the organization's operations, aiding in decision-making and resource allocation.

The ability to generate reports on sales details provides valuable information on the organization's revenue streams, customer preferences, and sales trends. This information can be used to identify top-performing products, target marketing strategies, and optimize sales processes.

Similarly, the software's provision for purchase details reporting streamlines the procurement process. It facilitates the creation of purchase orders, tracks supplier information, and ensures efficient inventory management. By accessing real-time purchase details, the organization can monitor supplier performance, analyse purchasing patterns, and negotiate better terms with suppliers.

The stock in hand reporting feature enables the organization to have a comprehensive view of inventory levels and track stock movement. This information helps in maintaining optimal inventory levels, avoiding stockouts, and minimizing holding costs.

However, it is important to highlight that the software has a limitation regarding the generation of aging reports. An aging report provides information on the age of goods and material. The absence of this feature may hinder the organization's ability to monitor and manage its receivables effectively. To address this limitation, alternative methods or manual processes may need to be employed to track and analyse the aging of goods.

DARPAN will significantly improve the analytical capabilities of the technical administration by providing a centralized platform for data collection and visualization. By transforming complex organizational data into visually appealing charts, the dashboard allows for easy interpretation and analysis. The user-friendly interface eliminates the need for coding or programming skills, making it accessible to a wider range of users within the technical administration.

One of the key strengths of DARPAN is its ability to provide real-time, dynamic project monitoring. This feature enables decision-makers to stay updated on project progress, identify potential issues, and take timely actions. The dashboard's capability to quickly identify trends and drill down into data provides valuable insights into district-level projects, facilitating targeted interventions and resource allocation.

Importantly, DARPAN presents information in an objective and quantifiable manner. This objectivity allows the technical administration to have a comprehensive understanding of project performance, including both successes and areas for improvement. By objectively quantifying project data, the dashboard promotes data-driven decision-making and aids in the identification of pain points and areas that require attention.

The successful implementation of DARPAN has several practical implications. Firstly, it enhances project management by providing a centralized platform for project monitoring, enabling efficient resource allocation and prioritization. The ability to quickly identify trends and gain a comprehensive understanding of district-level projects aids in strategic planning and decision-making processes. Additionally, the objective and quantifiable presentation of data fosters transparency and accountability within the organization.

However, it is important to acknowledge the limitations of DARPAN. Challenges may arise during the implementation process, such as data integration from diverse sources or user adoption. Furthermore, the dashboard's effectiveness may depend on the quality and accuracy of the input data. Ongoing support and training for users are essential to maximize the benefits of the dashboard.

The ADP portal has significantly simplified the process of marking attendance for employees within the organization. By offering a user-friendly interface and accessible dashboard, employees can conveniently record their attendance electronically. This eliminates the need for manual attendance tracking methods and streamlines the overall attendance management process.

The dashboard feature of the ADP portal provides employees with a centralized platform to access relevant attendance-related information. They can view their attendance history, check their leave balances, and monitor their attendance patterns. This visibility empowers employees to take ownership of their attendance records and helps them make informed decisions regarding their time management.

In addition to attendance management, the ADP portal offers features for tax submission. This functionality allows employees to conveniently submit their tax-related documents and information through the same platform. By integrating tax submission within the portal, the organization simplifies the process for employees, reducing the administrative burden and potential errors associated with manual tax submission methods. The inclusion of tax submission features within the ADP portal contributes to overall employee satisfaction and convenience. Employees can easily access and manage their tax-related documents and submit them in a timely manner, ensuring compliance with tax regulations. This integration also enables the organization to maintain accurate tax records and facilitates a smoother tax filing process.

The EyeQuick software has proven to be an effective tool for streamlining communication and collaboration between distributors and various departments within the organization. By serving as a ticket raising portal, the software provides a centralized platform for distributors to submit their requirements and communicate their needs

.

The ticket raising functionality of EyeQuick allows distributors to raise specific requests, report issues, or communicate their requirements to the relevant departments. This streamlined process ensures that all necessary information is captured and recorded, reducing the chances of miscommunication or missed requests. The software creates a systematic approach for managing distributor requests and ensures timely resolution of issues.

Furthermore, the ticket raising portal facilitates effective communication between inter and intra departments. By centralizing the communication process, departments can easily access and respond to distributor requests, improving overall coordination and collaboration. This eliminates the need for lengthy email chains or multiple communication channels, leading to enhanced efficiency and productivity

User-Friendliness and Ease of Use: The user-friendliness and ease of use of the HIS were found to be least accepted and Contentment factors among the participants. Specifically, the unavailability of comfort in facilitating direct and immediate data entry and information retrieval processes at the point of care was highlighted. This aligns with previous studies emphasizing the impact of user-friendly software on the successful adoption and implementation of hospital information systems.

Downtime Procedure: Users expressed their dissatisfaction with the downtime procedure of the Health Information System (HIS). They reported feeling unprepared for transitioning to a manual system in case of electronic system failure. The downtime procedure was perceived as unclear and lacking comprehensiveness. This finding aligns with previous studies that highlight the importance of well-defined downtime procedures to mitigate unintended consequences.

HIS Performance: Users unanimously accepted that the overall HIS performance was paced, which they found to be unacceptable. They believed that this slowness could further delay processes and increase the time required for completing tasks. Factors such as inadequate design, including a poor user interface, and suboptimal HIS performance, such as slow response times, were identified as contributors that hinder user acceptance and impede successful implementation.

Influential Factors based on Demographics: ANOVA tests conducted revealed that the gender of the users of the Healthcare Information System (HIS) do not have any significant relationship with the satisfaction index of user within different category. However, the employees, age job type and experience were found to have significant influences. Both years of experience and age exhibited similar patterns of influence, with younger and less experienced users reporting lower levels of satisfaction. These users expressed concerns regarding the system's speed, user-friendliness, provision of insufficient and inaccurate information, as well as occasional outdated information. Additionally, they reported feeling unprepared for technical failure, found the Operational interruptions to be unclear or incomplete, and perceived the HIS training materials as unhelpful.

In summary, the findings indicate a need for improvements in user-friendliness, downtime procedures, and overall performance of the HIS. Younger and less experienced users may require additional support and training to address their specific concerns. By addressing these issues, the chances of user acceptance and successful implementation of the HIS can be increased

CONCLUSIONS AND SUGGESTION

Drawing from the findings, discussions, and user feedback, the conclusion and recommendations can be condensed into four primary areas: software, system efficiency, organizational assistance, and feedback systems.

The implementation of the various software solutions has brought significant improvements to the organization's day-to-day activities, data management, project monitoring, attendance tracking, and communication with distributors. The INTRANET software has enhanced efficiency and accuracy by providing real-time reporting on sales details, purchase details, and stock in hand. It has improved decision-making processes, resource allocation, and inventory management. However, the limitation regarding the generation of aging reports requires alternative methods for tracking and analysing aging goods.

The DARPAN software will significantly improve the analytical capabilities of the technical administration by providing a centralized platform for data collection and visualization. The dashboard's real-time project monitoring, trend identification, and objective presentation of data have enhanced project management, strategic planning, and data-driven decision-making. The software has practical implications for project performance, transparency, and accountability. However, challenges related to data integration, user adoption, and data quality should be addressed to maximize its benefits.

The ADP portal has simplified attendance management for employees by providing a user-friendly interface and a centralized dashboard. The integration of tax submission features within the portal has further enhanced convenience and reduced administrative burden. The portal improves employee satisfaction, enables better time management, and ensures accurate tax record-keeping. Ongoing support and training should be provided to ensure smooth implementation and maximize the benefits of the portal.

The EyeQuick software serves as an efficient ticket raising portal that streamlines communication and collaboration between distributors and departments. It ensures that distributor requirements are captured and addressed in a timely manner, leading to improved coordination, efficiency, and productivity. The software facilitates effective inter and intra-departmental communication, eliminating the need for cumbersome communication channels.

System Performance: Enhancing the performance and accessibility of the Healthcare Information System (HIS) is paramount for its acceptance, user satisfaction, and overall effectiveness. Improvements should primarily concentrate on enhancing software speed, user-friendliness, and screen layouts.Additionally, consider making software features more user-friendly and adjustable, such as font size. Exploring innovative technologies like automated voice recognition and dictation systems can alleviate labor-intensive and time-consuming data entry methods.

Organizational Support: Enhancing organizational support for users is essential. This can be achieved by providing comprehensive training to both new and existing users. It is important to spend time in working hours on learning and practicing on the system after its upgrades. Offering enhanced Instruction manuals and training resources that serve as references for problem-solving would be beneficial. Additionally, ensuring better technical support from the vendor will help address user concerns effectively.

Feedback Mechanisms: Establishing dependable communication channels and feedback mechanisms is crucial. Users reported having ideas and solutions but felt that the low level of communication and the Lack of feedback mechanisms limited their chances of contributing to HIS improvement. Creating effective feedback mechanisms will enable users to actively participate in the system's development and enhancement. Regular surveys, like the one conducted in this study, should be conducted to oversee and enhance the degree of user acceptance and satisfaction

It is important to note that the study was conducted specifically in the supply chain department of the hospital, and generalizing the results and conclusions to other departments, especially those in different healthcare levels, may have limitations in terms of external validity.

SUGGESTION

INTRANET software:

- Explore options to incorporate aging reports to enable effective tracking and management of receivables.
- Continuously monitor and evaluate the software's performance to identify areas for improvement and optimize its functionality.

DARPAN software:

- Address data integration challenges by ensuring compatibility with diverse data sources.
- Provide comprehensive training and support to users to promote higher adoption rates and proficiency in using the software.
- Implement data quality control measures to ensure accurate and reliable insights from the dashboard.

ADP portal:

- Regularly update and enhance the portal's features to meet changing employee needs and evolving tax regulations.
- Conduct user feedback surveys to gather insights and identify areas for improvement in terms of usability and functionality.
- Offer training programs to ensure employees are fully aware of the portal's capabilities and how to maximize its benefits.

EyeQuick software:

- Continuously evaluate and refine the ticket raising portal to optimize its efficiency and effectiveness.
- Foster strong communication channels between distributors and departments to facilitate a seamless flow of information.
- Encourage user feedback to gather insights for further enhancements and improvements.

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