



DISTRIBUTED SUPPLY CHAIN MANAGEMENT SYSTEM IN PHARMACEUTICAL INDUSTRY

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ABSTRACT

This project mainly aims at developing a real time distributed application that reflects Supply Chain Management and to automate the process of product movement between the retailer and end user. This application automates the existing traditional system by the help of computerized equipment's so that the product movement between the retailer and the end user is easy.

I. INTRODUCTION

“Distributed Supply Chain Management System in the Pharmaceutical Industry” is a web application. With, the help of this application users can order medicines online without having to go to storefront pharmacies. The users can get the list of nearby pharmacies by providing the location, which will list all the pharmacies within 25km. This will also display the route map in which the listed pharmacies are marked.

Users can add the pharmacies to their favorite list. Once the pharmacies are added to their favorite list, customers can order from any of the pharmacies from their favorite list.

Once the user selects the pharmacy to order medicine they can search for the particular medicine and check for the availability of the product, if available they can order the medicines by adding it to cart by specifying the quantity and uploading the doctor's prescription. Order will be processed only if the prescription is uploaded. Medicines can also be ordered based on the previously uploaded prescriptions. The ordered medicines will be deducted from the drug stock once the medicine is ordered. The system will auto generate alert once the product reaches to its minimum level. Once the order is dispatched

user can track the order. Payments can either be online i.e. EPayment or cash on delivery.

If, the user wants to return the product they can either cancel the consignment or return the product. To cancel the order, the user needs to specify the valid reason. The product returned will be restocked. In, case of product replacement new purchase order is generated. The activities associated with returns, reverse logistics are also managed.

II. LITERATURE SURVEY

In the existing system distributors, and the retailer use their own ways to process the data. There was no link between the distributor, retailer, and the customers.

Many a times people need to travel long distance to a traditional storefront pharmacy to buy medicines, checking for availability and if it's not available moving to some other pharmacy. Online pharmacy lets the user to order medicines much more conveniently and getting them delivered right to your doorstep just by uploading the prescription without having to rush into medical shops during their working hours and wait in long queue. This is helpful if you are not living nearby that town or if you want to buy medicine for the physically challenged, senior citizens or any others for whom travelling long distance is difficult or if they cannot leave their home. This also provides you the added advantage of later delivery if you're not at home when it's delivered. It's also difficult to get the information regarding the medicines in the traditional storefront pharmacies. In, the online pharmacies you not only get the good medications, but you can also get the information regarding medicines and diseases.

Online pharmacies also let the users to search for the alternatives that are available at the reasonable price; thus, help people to cut down

their expense. Online pharmacy lets the user order for medicines privately and conveniently from the pharmacies they wish, this is helpful for those people who does not wish to discuss or share their medical status with world. And if you have any queries about any concerns you can ask it without any hesitation and avoid embarrassment.

Price of the medicine varies from brand to brand, online pharmacy lets the user to compare price among various brands that produce the medicine with same formulation with the added advantage of paying less tax by just switching the tabs to check the various websites. Buying medicines online will help the user to save money as well as their time. Many of the surveys conducted by the researchers have proved that one third of the price can be saved on prescribed drug if they are ordered online.

There are pharmacies that are not registered as legal stores and user might not know whether those stores are licensed. Buying medicines from such stores are not safe. Purchasing medicines online lets the user verify whether pharmacies are licensed and reduces such risk. In, recent times internet has made it easy for us to deal with all kind of emergencies. Online pharmacy is one among them.

III. OBJECTIVE

The proposed system links the customer, distributor and retailer in a single system to make it a complete supply chain management system.

The main objectives are:

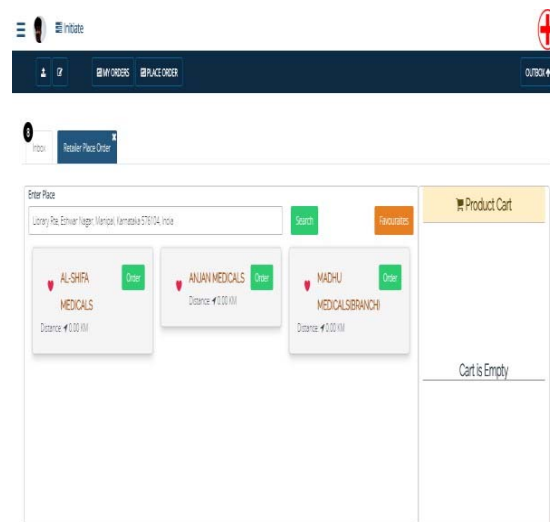
- To develop a real time distributed application that helps to add value to customers.
- To improve collaboration among retailer and end user and simplify the process of product movement from retailer to end users.
- Provides the extensive list of nearby pharmacies.
- Provides the extensive list of drugs available.
- To order the medicine from any of the pharmacy user wish by uploading the prescription.
- To track the order status once the product is dispatched.

Module Description:

Real time identification of nearby pharmacy:

This module lets the user to search for the nearby pharmacies, medical stores by specifying the location. The latitude and longitude of the location is found and accordingly the pharmacies are listed. By default, the present location of the customer is considered. This module also displays the route map in which all the listed pharmacies are marked. User can also add the pharmacies to their favorite list, to add the pharmacy to the favorite list the user needs to login into the system.

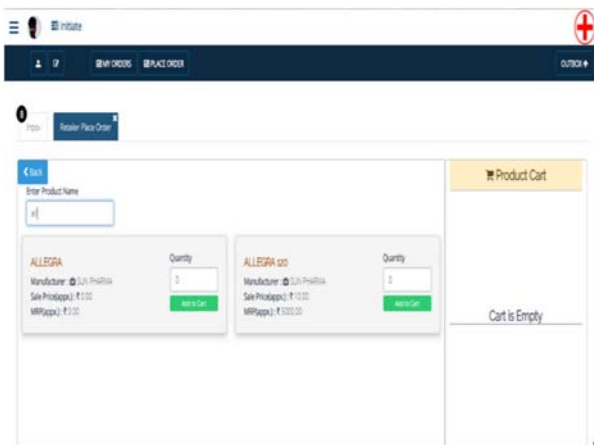
Once the pharmacies are added to their favorite list, customers can view the list and order from any of the pharmacies from their favorite list.



(Fig 1: Screenshot- Search Pharmacy)

Checking for the availability of product:

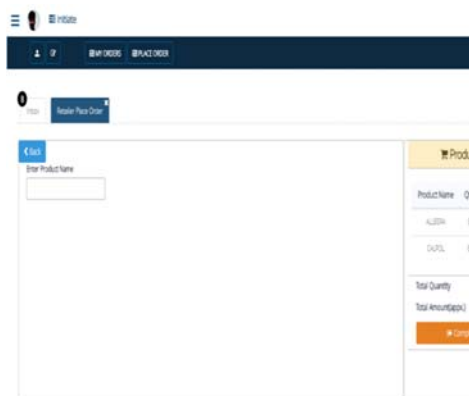
Once the user selects the pharmacy they can search for the medicines that they want to purchase and check for the availability of product. On the availability of product, they can add it to their cart. This module auto generate alert when the stock reaches to its minimum level.



(Fig 2: Screenshot- Search Product)

Live ordering:

User needs to login to the system to order the medicines. When the user search for the medicine and if the product is available, user can add it to the cart by specifying the quantity. The order will be confirmed only when the user uploads the Doctor’s prescription. On the confirmation of the order, the message is sent to the user regarding the order confirmation. The ordered drug will be reduced from the stock.



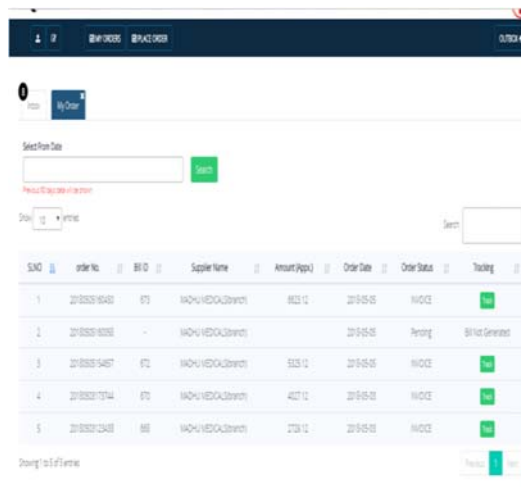
(Fig 3: Screenshot- Cart)

E Payment:

This module lets the user make payment through electronic medium without the use of checks or cash.

View orders:

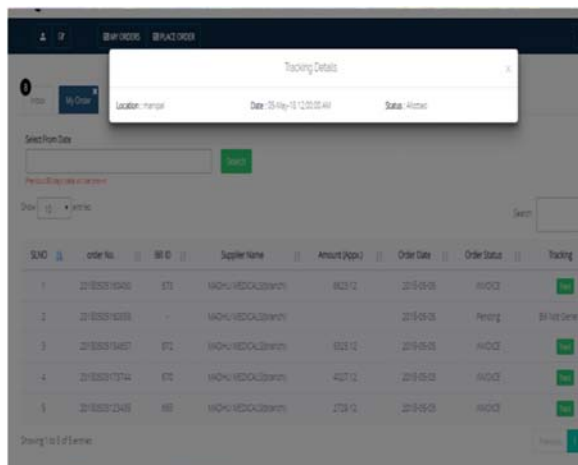
The user can view the list of medicines which they have ordered. The list is based on the orders made by the user in last 90 days. This contains the details regarding Order No, Bill ID, Supplier Name, amount, order date, order status etc.



(Fig 4: Screenshot- View Orders)

Live order status:

The user can also track the status of the consignment once the order is dispatched. Tracking details contains information regarding location, date, and status.



(Fig 5: Screenshot- Order Tracking)

Product return:

With the help of this module the user can easily proceed for the cancellation of any product. User needs to go to my orders, select product, click on product return option, this will redirect to product return page where user need to mention the valid reason for product return. Once the request is confirmed the both the client side and server side verification is done. Request is then forwarded to the retailer. Once the retailer approves the request Payment reverse and product pick up procedure takes place.

Return Management Tracking:

Return management is the supply chain management process by which the activities associated with returns, reverse logistics are managed. This enables not only to manage the reverse product flow efficiently but to identify the opportunity to reduce unwanted returns.

IV. CONCLUSION

The major advantages of the system have been linking retailers and customers through a single medium so that the process of movement of product between the retailers and customer becomes much more efficient to make it a complete supply chain management system.

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