Chain Drugstore Management System Based on Internet

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***Abstract*—Starting from the background and practical significance of the research on the chain drugstore management system in the Internet era, this paper analyzes the business model of the chain drugstore, the relationship between the chain drugstore and the head office, the business relationship between the drugstore staff and the necessity of designing the chain drugstore management system, discusses the design objectives, principles and overall design scheme of the chain drugstore management system, and expounds the management system of the chain drugstore Design process. Through the analysis of the functional requirements of the system, the chain drugstore management system mainly includes information management module, drug management module, distribution management module, sales management module and statistical management module, so as to design the functional structure diagram and the database needed by the system.**

Keywords-Chain pharmacy; management system; research; design

I. OVERVIEW OF SYSTEM RESEARCH

A. Background of System Research

China is the second largest producer and exporter of APIs in the world [1]. As an important industry, the pharmaceutical industry occupies a certain position in the market. At present, the increasing demand for pharmaceutical products also makes the pharmaceutical industry in a period of rapid development. The rapid development and change of retail pharmacies in China has far exceeded the sum of the past years [2]. The rapid development of the industry will inevitably lead to the intensification of competition in the pharmaceutical market. In such fierce competition, in order to remain invincible, as the managers and decision makers of the pharmaceutical industry, they should constantly improve their own management system, improve their business model. In order to develop and expand the pharmaceutical company, maintain and expand their market, they should change the old business model, and the chain business model is just in line with the current situation. Chain operation is a common operation organization form of large-scale commercial retail companies at home and abroad.[3] as an advanced commodity circulation channel and enterprise organization form, chain operation has incomparable strong competitiveness in the commercial field. It is not a new and young way of operation, but it is the most dynamic and fastest-growing one in the world [4]. Therefore, it is imperative to develop branch chain drugstore.

B. Significance of System Research

The management system of chain drugstore mainly takes the branch of drugstore chain drugstore as the object. It is developed for the marketing management of chain drugstore at present, and it is suitable for modern chain drugstore. The design of the system is completed by using advanced computer technology and following the principle of software engineering development design. It is convenient and fast to use. The scale of chain drugstores is different, and the implementation and management of chain drugstores are different according to local conditions. Managers need to choose an economic and feasible management system according to the situation of drugstores and their own conditions. The system designed in this paper is relatively simple and practical, which is suitable for most chain drugstores. I hope that the system can run stably and have certain expansion space to meet the needs of different users. Through the introduction of management information system, the traditional paper document management mode has been completely changed, and the time of data retrieval has been reduced. Each branch has advanced computer system terminals, and implements programmed and standardized management [5]. Standardized operation standard and unified standard of overall image of drugstore [6]. With the help of the computer automatic analysis system, the head office can grasp the operation trends of each branch and each sales variety, which not only improves the management efficiency, but also reduces the cost [7]. And through the management information system, it can provide scientific and effective decision support basis for the person in charge of chain drugstore [8].

II. DESIGN OF MANAGEMENT SYSTEM

A. Functional Requirements Analysis of the System

1) Information management module

The information management module is mainly for chain drugstore management, mainly to check the basic information of related drugstores and some information of related personnel dynamics.

2) Drug management module

The drug management module is mainly used to manage the drug information and drug category information of the pharmacy. The sales personnel can timely check the type, name and sales unit price of each drug.

3) Distribution management module

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The distribution management module is mainly for the buyer to send a distribution application to the head office according to the demand information of various drugs and whether there is an overdue backlog of drugs, so as to ensure that the pharmacy's drug inventory is sufficient and there is no backlog.

4) Sales management module

The sales management module mainly records the basic information of drugs sold by salesmen, including drug number, drug name, drug unit price, sales quantity, cumulative amount, sales time and salesperson number, that is, the generation of sales order

5) Statistical management module

The statistics management module mainly displays the information of commodity inventory, operation status and employee performance. It is mainly for the purpose of making statistics on some important situations of the pharmacy on a regular basis. Through these statistics, it is convenient for the manager to report the information to the superior in time,and then the superior will review it.

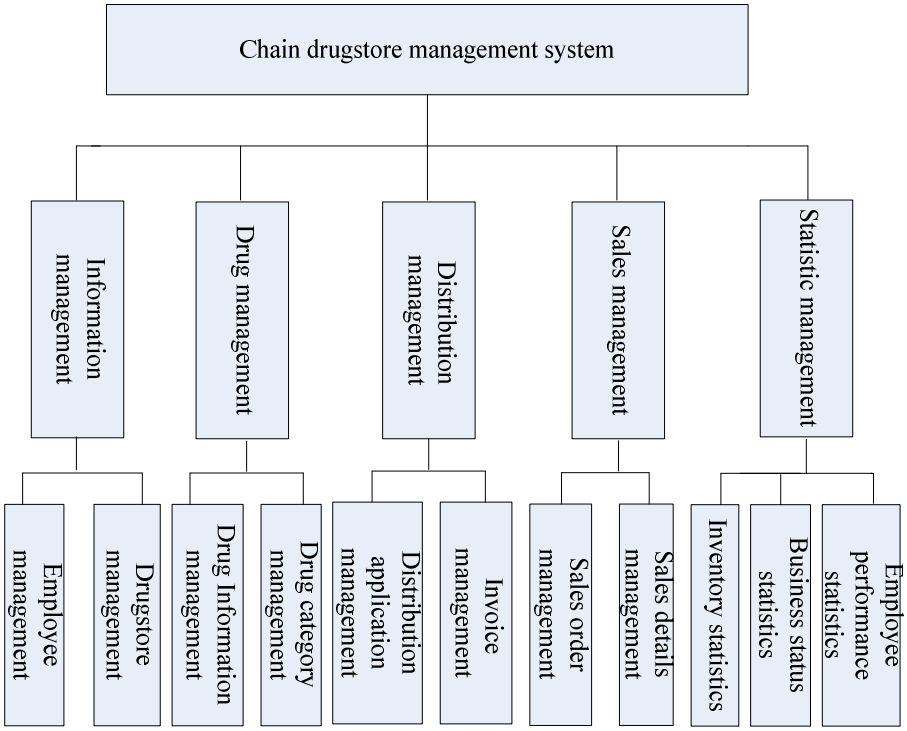

Figure 1. Chain drugstore management system functional block giagram

B. Database Design of the System

According to the analysis, in order to meet the functional requirements of the system, at least the following database tables shall be designed:

- list of chain drugstores, which mainly stores information of drugstores.
- drug list, mainly used to store drug information.
- the distribution application form mainly stores the information of the applied drugs.
- sales list, which mainly stores the information of sold drugs.
- inventory table, mainly containing information of drugs.

TABLE 1. CHAIN PHARMACY(DRUGSTORE)

Field name	Data type	Length	Constraint	Describe
Store_ID	Int		Primary key	Pharmacy ID
Mark_Name	varchar	20		Pharmacy name
Phone	char	20		Contact information
Address	char	50		Site address
EMP_ID	char	10		Responsible person ID

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Areas	Decimal	7,2		Operating area

TABLE 2. DRUG LIST (DRUGS)

Field name	Data type	Length	Constraint	Describe
Drugs_ID	char	13	Primary key	Drug number
DrugsLB_ID	char	8	Foreign key	Drug category ID
Name	varchar	20		Drug name
Price	Decimal	7,2		Unit price of purchase
SalePrice	Decimal	7,2		Unit price of sales
Icon	varchar	20		trademark
Company	varchar	50		Manufacturer
Package	char	2		packing
Weight	varchar	8		Weight / volume
Type	varchar	20		Model
Remark	varchar	50		Remarks
SafetyStock	Int			Safety stock

TABLE 3. DISTRIBUTION APPLICATION FORM (PLAN)

Field name	Data type	Length	Constraint	Describe
Plan_ID	Int		Primary key	Application No
PlanTime	Datetime		Defaul system time	Application time
Drugs_ID	char	20	Foreign key	Drug No
Quantity	Int			Applied drugs Quantity
Price	Decimal	7,2		Drug unit price
Total_Price	Decimal	10,2		Total price of drugs
Store_ID	Int		Foreign key	Apply for pharmacy
EMP_ID	char	10	Foreign key	Applicant No

TABLE 4. SALES ORDER(SALE)

Field name	Data type	Length	Constraint	Describe
Sale _ID	Int		Primary key	Sales Order No
SaleDate	Datetime		Default system time	Sales time
Drugs_ID	char	20	Foreign key	Drug No
Quantity	Int	4		Sales volumes
Price	Decimal	7,2		Sales unit price
SaleMoney	Decimal	10,2		Sales amount
Store_ID	Int	4	Foreign key	Sales pharmacy ID
EMP_ID	char	10	Foreign key	Sales person No

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TABLE 5. INVENTORY TABLE(STOCK)

Field name	Data type	Length	Constraint	Describe
Stock_ID	char	10	Primary key	Stock number
StockDate	Datetime		Default system time	Statistical time
Drugs_ID	char	20	Foreign key	Drug No
LastRemain	Int	4		Balance of last period
Were	Int	4		Current sales volume
SaleNum	Int	4		Balance in current period
Remains	Int	4		Over / under safety
IsAble	Char	1		Inventory

III. SUMMARY

The chain drugstore management system designed in this paper breaks the traditional manual mode of medical sales, and promotes the construction and development of medical sales informatization and computerization. The information management, drug management, distribution management, sales management and statistical management designed in this paper free the chain drugstore from the pure manual management. In order to avoid low efficiency and error prone manual operation, the work efficiency and service quality are improved. [9] make pharmacy management more informative, standardized and efficient. In today's competitive society, it is very important to provide managers with fast and accurate access to business information [10].

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