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Designing Pharmacy Transaction Information System

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Abstract. The purpose of this study is to improve the manual information systems in pharmacies to design information systems sales, purchases and checking inventory of drugs in drugstore become more efficient. The method used in this research is descriptive research method. Descriptive research itself is a study conducted with the main purpose to provide a description of a particular situation objectively. This research is designed to solve or answer the problems that are being faced in the present situation. Descriptive research also intended to explain the phenomenon or individual characteristics, situations or groups accurately. The result of this research shows that the differences of the old procedure with the proposed procedure lies in the system that still use the file sheets or archives while the proposed is done computerized. With a computerized system, the existing system in the pharmacy will be more efficient.

1. Introduction

Implementation of information systems background computer in the business world in this digital era as has become a necessity, as a form of strategy to make the company competitive in the face of competition. This application is also one of the surefire ways to improve the productivity of the company's performance. The process of data processing into a form of information will be done quickly and easily with the use of computers in each system. Familia Pharmacy is one of the pharmacies that provide prescription and non-prescription medicines to serve the surrounding community. Aspects of ease and convenience of consumers who need health services is an important factor for companies in gaining consumer confidence. And one of convenience and convenience for the consumer it can be realized in the health services that the data processing already applies computer-based information system. From the results of the research in Familia Pharmacy found work process is done manually on the system that is running. First, the process of data processing found in Pharmacy Familia is still manual, where data processing is only simple bookkeeping. The bookkeeping covers the recording of sales, the recording of the purchase, and the recording of the inventory. S in the case of making the same report, the report is still manual such as the sales reports, purchase reports, or inventory reports. Three, obstacles that arise with the still applied manual system is located on the efficiency of working time. Ika explained that information system has very important role in business activities in a company. Healthy Glorious Electronic stores still use conventional way of processing data on sales transactions, for it requires that information systems can support the smooth running of the sale. The purpose of this study is an attempt to make the system stores the information in the Electronic Healthy Glorious is not computerized and still use conventional way. Of this research are expected to conventional the resulting information system will be capable of



overcoming of the system is not computerized. [1] The development of Pharmacy that has been computerized is explained by Stephanie that Internet pharmacy addresses issues pertaining to Internet pharmacies that sell prescriptions and other products to consumers at the retail level. The Internet pharmacy industry has shifted rapidly in the short time span. This paper begins with a summary of historical considerations and the shifting organization of Internet pharmacy. The advantages and disadvantages of online pharmacy practice are listed. Issues of access, quality, and cost are described. The challenges in regulation at the state and federal levels are presented. Advice to consumers is offered regarding the use of Internet pharmacy sites for purchasing prescription medicine products. [2] According to Reza et al, The use of technology at this time has been applied to the health section. Website is a technology that is easy to use. Pharmacy is a store where concocted and sells medicines based on doctor's prescriptions and trades medical goods. Buyers who want to buy medicines but medicines that are bought out can make visitors disappointed. To anticipate this disappointment, we created a Medicine Services Information System in Pharmacy that can provide convenience in viewing the medicine information to be sought and the stock of the medicine itself. In addition, customers will not be in vain - come to Pharmacy because the medicine in the desire is up. This system will be described how it works with UML diagrams, forms and interfaces [3]. Pharmacy information system has a set of management functions of the pharmacy in terms of the sale and purchase transaction records of medicines, inventory, and report to the leadership, good cashier reports, stock reports and profit and sales. [4]

According to Hapsari et al. Pharmacy as one of the organizations that generate sales data every day, has not been able to maximize the utilization of such data. Sales data is only stored without further analysis. An application is needed to analyze the market basket of medicine sales transaction data by using data mining as a data analysis technique that can help Pharmacy gain knowledge in the form of sales patterns in certain period of month. Data mining applications are built using a linear sequential process with PHP programming languages and MySQL database. The algorithm used as the main process of market basket analysis is a priori algorithm using minimum support, minimum confidence, and sales transaction month to find association rules. Data mining application resulted in the association rules between items in February 2012, namely the consumer made the purchase of blood type medicines and analgesics simultaneously with the support of 2.08% and the confidence of 45.45%. Thus, if there is a consumer buying a blood medicine type then there may be 45.45% of consumers buy the analgesic type. [5]

Muhammad and Deassy explain Pharmacy is a place of service products and services of pharmaceuticals (medicines) to the public. Pharmacy management is performed by a Pharmacist that includes planning, organizing, implementing, monitoring, and assessing the performance of the Pharmacy. In the implementation of the Pharmacy, there are some activities such as managing the data of existing medicines including medicine stock, medicine purchase from distributors, medicine sales to consumers, determining medicine selling price policy, and report in the form of recapitulation of all medicine sales and purchasing activities occurring at The Pharmacy. Along with rapid technological developments, data processing in Pharmacy needs to be well organized and computerized to build an effective, efficient, and productive pharmacy management. The resulting information system has the ability to manage data, store data (storage), process transaction data such as transaction data input process (sales and purchase of medicines), store into the database, and generate the required information such as purchases, sales and existing medicines. [6]

Explicitly Charles et al. describe Integrated clinical information system technology was implemented in a multihospital health care system with a phased-in approach. A positive effect of this integration on medication errors throughout the medication-use process was demonstrated. Most prescribing errors decreased significantly in the selected categories monitored specifically medicine allergy detection, excessive dosing, and incomplete or unclear orders [7]. According to Helmi, Information System is designed using UML, database using SQL Server and Microsoft Visual Studio 2008. This medicine inventory information system is built aimed to support Pharmacy's operational activities and also to streamline the time needed for medicine acceptance and disbursement process and report making. [8]

Then Puspita explains with increasingly sophisticated technological advances, today there are many medicine stores (pharmacies) that use the conventional way to do the tasks related to the pharmacy. One is a pharmacy in the Distric Arjosari Teak Farma. These pharmacies have problems with the recording of conventional transactions. Therefor it is needed a system that can overcome it. Software used to manufacture this system is Visual Basic 6.0, MySql odbc connector, xampp as the server and MySql as the database. [9] And ultimately resulted in medicine sales information system as one of the efforts to increase the effectiveness in entering medicine data and finding medicine data so as to facilitate the sale transaction. [10]

Based on the previous studies on the material, there are still shortcomings. The full reference has not been fully found. Here, the purpose of this study is to know the system of sale and purchase of medicines in Familia Pharmacy. Then make the design of information systems sales and purchases of medicines to be proposed by the author to be implemented in Familia pharmacy.

2. Method

This research method is kind of descriptive research method. Descriptive research itself is a study conducted with the main purpose to provide a description or description of a situation objectively. This research design is used to solve or answer the problems in the present situation. Descriptive research also means research that is intended to explain the phenomenon or individual characteristics, situations or groups accurately. Type and method of data collection by passing observation and interview and using system development by using prototype approach method.

3. Results and Discussion

The difference between the old procedure and the proposed procedure lies in a system that still uses file sheets or files while the proposed ones are computerized. In fact, the service in the purchase transaction can run efficiently and quickly. Then the development of a special application in the purchase of medicines - medicines that are integrated with Electronic Commerce means. This encourages, the system's renewal in the sale of medicines.

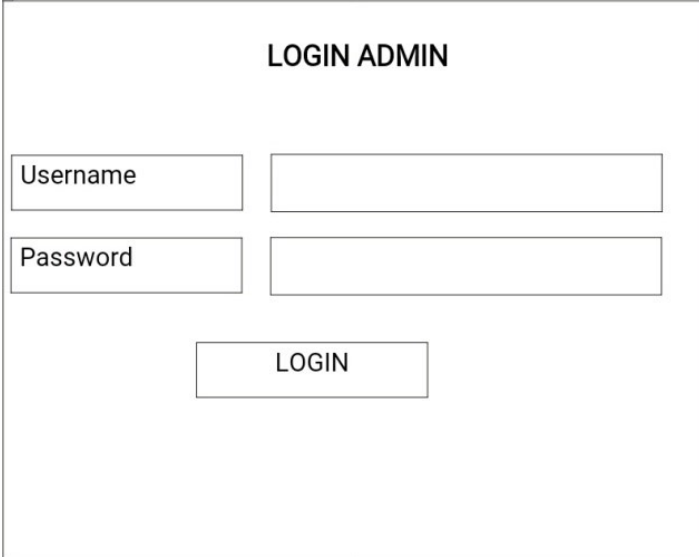
The use of Pharmacy transaction information system, gives a positive impact that is, with the existence of a system that is engineered to maintain and monitor medicine transactions in Pharmacy throughout Indonesia, this can reduce the level of medicine abuse to Narcotics, Psychotropic and Addictive Substances especially for the younger generation. Mass-based technology-based technology transactions can facilitate the flow of health information for the community, on the monitoring of medicine availability.

Here the system design will be proposed are:

1. Consumers come and buy prescription or non-prescription medicines by providing data of demand for to the cashier. This phase of pharmacy cashier manages prescription data accurately to determine whether the s are available or medicine status exists.
2. If data on prescription or non-prescription medicine requests are not available, then the cashier will return the data of medicine demand to the consumer. Conversely, if a request for non-prescription medicines are available then the cashier directly input data on the demand for the medicine.
3. The cashier calculates the total price to be paid, then prints the sales invoice and is given to the consume, because in the process of calculating the sale and purchase of medicines no longer need to use the calculator because of a computerized system that can easily and quickly process the calculation of sales transactions and purchase.
4. The cashier will keep the data of the medicine request to make and print the sales report per period to be submitted to the management because a computerized system can facilitate integration quickly and accurately as a sales report.

3.1. Procedure Design

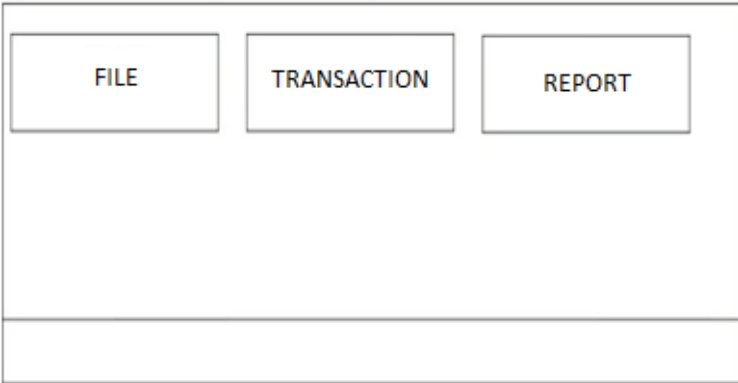
Display design is used as data access and processing. Designing the Admin Login view is the beginning of Pharmacy access to the medicine data retrieval system. Furthermore the task of the admin is to make every access data easy and can be maintained from hacking system or other parties (Figure 1).



The figure shows a login form titled "LOGIN ADMIN". It contains two input fields: "Username" and "Password", each with a corresponding text box to its right. Below these fields is a "LOGIN" button.

Figure 1. Login form.

The creation of the main menu facilitates an access to medicine purchase transactions, beside of that, the sub menu also provides the file and Report pages in addition to the management and delivery of reports (Figure 2).



The figure shows a main menu with three buttons: "FILE", "TRANSACTION", and "REPORT". Below these buttons is a horizontal line, and at the bottom is a wide rectangular box.

Figure 2. Main menu.

The next step is an access on Transaction work page. At this stage, the purchase of more specific medicines is done by inputting some data on the Medicine Code, Type, and Price (Figure 3).

Medicine Code	
Medicine Type	
Price	
Price	
INPUT	

Figure 3. Input Medicines data.

After the search process data about the medicine purchased, the system will quickly transfer information on the Sales Transaction Data Form page. This is related to the data processing that will be connected to the Sales Report system (Figure 4).

No	Code	Name	Price	Quantity	Total
Total					

Figure 4. Form purchase data transaction.

The last stage in the Pharmacy transaction process using the information system is the provision of proof of purchase of s. The details in the system are almost identical to the Sales Transaction Data Form, but there is a difference by listing the Supplier section in the Purchase Transaction Data Form (Figure 5).

No	Code	Name	Price	Quantity	Total
Total					<input type="text"/>

Figure 5. Purchase transaction data form.

4. Conclusion

Based on research about Pharmacy Transaction Information System it can be concluded that the Transaction Information System that has been designed will assist in the processing of sales transaction data and purchase transactions. In the transaction process no longer need to add or reduce the stock of drugs by way of recording manually more easily and quickly because of the application that has a storage system with a database in the computer and can speed up the search of drug data against databases stored in the computer.

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