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STRATEGIC MANAGEMENT E-PROCUREMENT APPLICATION SYSTEM

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ABSTRACT

The procurement of goods and services of a company leads to a routine activity brought regularly with a purpose to comply with the requirements of goods or services.

Top Garment Company is a service company of garment manufacturing. In the process of business, particularly related to data processing, still uses conventional methods ranging from the transaction of expenditures to report making. One of the manifests of difficulties frequently occurred in parts of inventory is that the employees take much time in terms of expenditures data collecting. The system established shows a procurement data collecting interface, for as users' data, goods, suppliers, divisions, and procurement transactions for example receipt of suppliers, demand of division, expenditures, and transactions to check the minimum inventory of goods. The procurement system is expected to bring benefits to its users such as the standardization of the procurement process, the transparency, and the efficiency of better procurement. The procurement system applying the computer system will support the inventory division in increasing time budget efficiency in providing material and reducing the possibility of recording errors.

INTRODUCTION

Background

Globalization turns people to get their needs of information increased significantly and it is a kind of information technology that escalates rapidly. This fact of the flourish of technology is supported by some adequate features and infrastructures. For that reason, small enterprise and or bigger companies bring out information technology alteration due to support their operational activity [1]. One of a kind that requires the escalated information and technology system is inventory division. The system or application runs importantly dealing with the accuracy and velocity of the procurement process to work properly as it is planned [2].

The supply division of the Top Garment Company should be capable of organizing procurement. Observation results show several various problems eventually occur, for example in supply division which still applies a conventional method dealing with organizing data of required goods from each division. The activity process run in that system uses a conventional system by recording the division requirement in Kings into a manual form of requirement procurement of goods which is provided. In such a way, it could not be arranged well and they could not comprehend definitely whether it could be completed or not. Then, it appears other problems towards the receiving of the transaction of goods from suppliers, of the activity process recently still use the conventional way by recording those goods come from suppliers. The employer at stock division is purposed to match the data of previous goods that have been ordered. General problems usually appeared in this type of transaction is frequently similar to other transaction, that is receiving transaction which is not effective and efficient, waste of the time, the ignorable stack of documents. On the other hand, receiving data of goods has been recorded sometimes disappeared, accidentally exchange, and error [3]. When the data are required for report making, the supply official employees should remake the report.

The other matters are dealing with goods expenditure transaction, the process of the activity is equal to the other transaction, the employees of supply division record the expenditure goods towards the division by recording it into form. Since the obstacles and matters of problems are still faced by the company, it turns to be delay and errors dealing with goods distribution to the division. By this fact, the computerized system of data processing by using computer application is required to fulfil escalated data processing requirements in the production process, because it reduces double recorded data, declining risks that probably happen.

Then another problem arising is in checking the minimum inventory of goods, employees often experience various difficulties in its business processes [4]. Currently, the process of activity is by checking into records or data on revenues and expenditures. As a result, it takes time quite long, cannot access the data and information effectively. Expenditure data that have been created are not always accurate, errors sometimes happen, the data lost, or confused with stacks of other documents (papers). Besides, the inventory division employees are not always capable to update or control the minimum inventory of goods.

The final problem that rather arises is when creating reports. It is because in making the report that is currently running, they keep running the conventional method. The report makes is such a time-consuming activity and lean of some errors.

Formulation of the problem

As the following while, the authors conducted a study on the current system, the problems that regularly occur in the process of recording inventory at Top Garment Company are as follows:

a.   How to build a procurement system that may specifically recordable of the items requested from each division and simplify the data collection matching goods received from suppliers?

b.   How to build a procurement system that facilitates listing the items to be distributed to the division simply and which able to check the minimum stock of goods?

c.   How to build a procurement system that can display reports required by the admin?

Objectives

The purpose of creating the Application System of Development Procurement at Top Garment Company is to design and apply the technology of procurement application information required by the division of inventory.

The purposes of this research are as follows:

a.   To build procurement systems that can record the items requested by each division and simplify the data collection dealing with matching goods received from suppliers.

b.   To build a procurement system that can simplify the records of goods distributed to the division and be able to check the minimum inventory of goods that are still available.

c.   To build a procurement system that can display reports required by the admin division.

Scope of the problems

In order to make the problems became more explicitly clear and understandable, the authors limit the issues are as follows:

a.   Development of the E-Procurement Application System using VB.net in Top Garment Company is a desktop application.

b.   Users run these applications include administration employees, inventory division, and other divisions within different access right.

c.   The system created will perform data processing such as the demand for goods, acceptance of suppliers, expenditures, and examine the minimum inventory of goods.

d.   The system created will also display the type of data item, supplier data, division (batik, shirts, jackets, blazers, etc.)

LITERATURE

Definition of strategic management

The process of analysis and the creation of strategies and the implementation and ongoing monitoring used by organizations with the aim of achieving and maintaining their competitive advantage. Management Strategy can also be defined as the art and science used to formulate, implement, and evaluate cross-functional decisions that enable organizations to achieve their goals [5]

Definition of Procurement

Basically, in order to facilitate the activity through the company's operations due to its competency in bringing out the production of goods in a row and can be delivered to customers or consumers, it is very necessary to have a good inventory of the goods or services. The fluency of stock flows of goods and services is essentially important in supporting the course of an organization to achieve its objective purpose. Therefore, a company or organization must conduct procurements (of goods or services).

From the explanation above, it can be concluded that the procurement is a series of activities to provide logistics according to the requirement, both with relating to the type, quantity, time, and place to price and resources that can be responsible [6]

The beneficiary of procurement

The purposes of procurement are as follows [7]:
a.   To obtain goods or services at a price that can be accountable, the amount and quality of appropriate and timely procurement.
b.   To streamline the production process and the company's activities by providing goods or services to a user or customer with the principle of "the seven right."
c.   To restrain the inflation by refusing when there is no guarantee that prices will rise up.
d.   To raise the quality of purchased-materials, thus it will be escalating the consistency of product quality.
e.   To improve products and processes by encouraging open communication between the seller-buyer.

Purpose of procurement

Interest procurement of goods or services is to obtain goods or services required by government institute in a sufficient quantity, quality and price

that is accountable, in a specific time and place, effectively and efficiently, according to the rules and processes that apply or in other words, obtaining goods by fulfilling six criteria below [8] :

a.   Right Quality

The quality of goods is also important in the purchasing of a particular product. Good quality will make the item durable.

b.   Right time

Dealing with flair and precision in determining the booking period (lead time) that when the items are needed, they are already available.

c.   Right Price

Determining the right price is not an easy job, it relates to the ability of buyers to negotiate its associates through a vote. But keep in mind that low price does not necessarily indicate that low-quality goods, as well as a high price, does not guarantee good stuff.

d.   Right Procedure

It means that they must follow the common rules in order to avoid distortions.

e.   Right Item

Procurement is purposed in the fulfillment of an item with the correct type. Usually, the items needed consist of a lot of varieties, each type has various advantages and disadvantages because of the combing of the right type is required.

f.   Right Amount

In conducting procurement transactions, precision on the quality of the goods must be properly addressed, as if to be an inadequacy in the number of goods, it would cause congestion in company operations.

RESULTS AND ANALYSIS

Results

The interface is a medium of interaction between the user and the software. The picture below is the result of the implementation of the interface of the
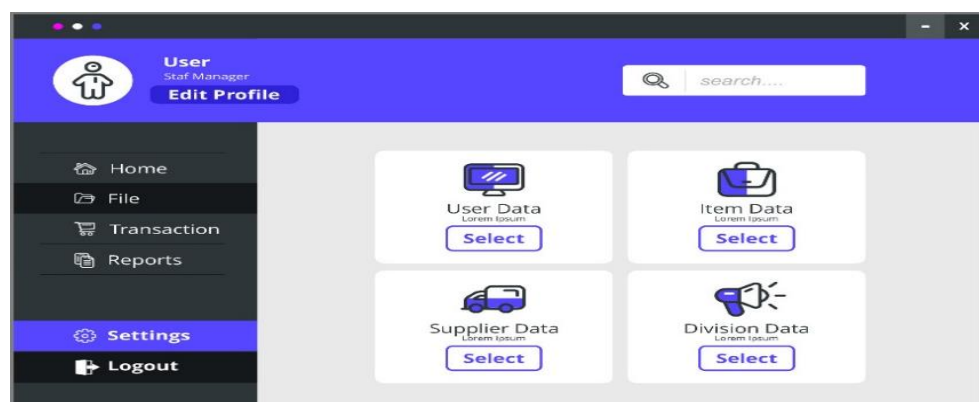
applications that had been built:

Figure 1: Form of the file menu

Figure 1 shows the interface form the menu file. If the user has successfully logged in, and select the file, it will show a sub-menu file consisting of user data, item data, supplier data, and the data division.
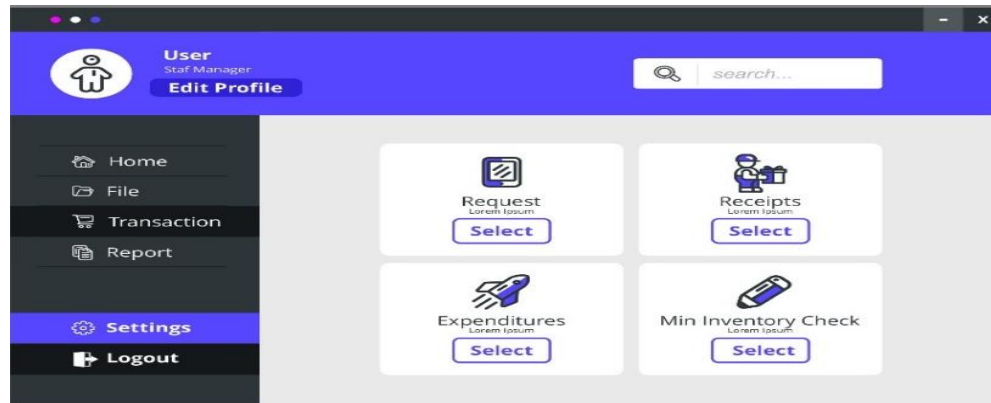
Figure2: Form Menu of Transaction

Figure2 shows the interface of the transaction menu form. If the user has successfully logged in and selects the menu of the transaction, then it appears sub-menu of the transaction consists of transaction requests, receipts, expenditures, and minimum inventory check.
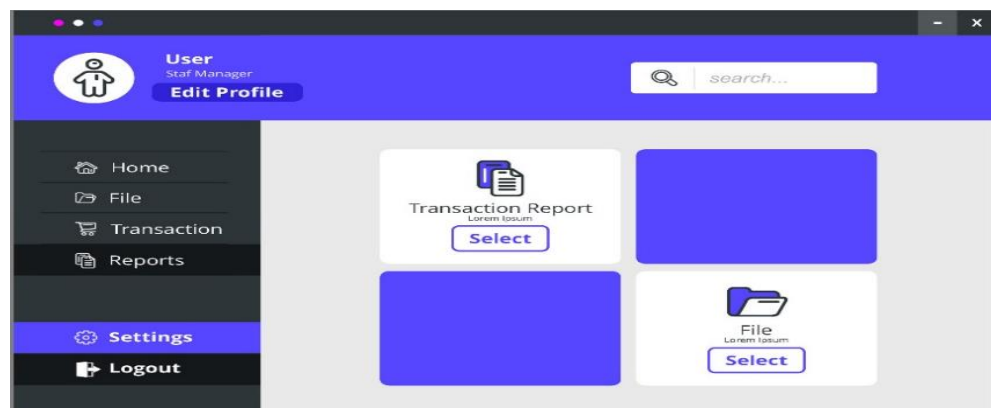
Figure. 3: Report Menu Form

Figure 3 above is an interface display menu form of the report. If the user has successfully logged in, and select the report, it will show a sub-menu file report consisting of sub-menu user reports, items, suppliers, and division. Submenus contained in the transaction report consist of report requests, receipts, and expenditures.

In this section, it is explained the results of research and at the same time is given a comprehensive discussion. Results can be presented in figures, graphs, tables, and others that make the reader understand easily. The discussion can be made in several sub-chapters.

Analysis

The new system built consisting of several features that can handle data management into existing business processes in Top Garment Company, such as data processing of circulation of goods, processing of goods demanded by divisions, check the minimum supply of goods, data processing goods, suppliers, divisions and user applications, and also can display information such as data reporting and transaction data file [9]

Current business processes in Top Garment Company will be assisted and supported by a procurement application that is expected to be completely helpful to all parties involved in the business. The application of the procurement system built is expected to be a solution to solve the problems and several difficulties owned by Top Garment Company. The procurement system which has been created will provide procurement information that can be accessible for data and information rapidly in terms of data processing, efficient in terms of power, and accurate in terms of information [10].

The system will be built in the improvement and development of the conventional ways that are recently still running, so it will produce a performance and business processes better and can improve performance or business processes in Top Garment Company[11]. Besides, the system built is expected to reduce errors and cover the weaknesses of the current system.

Description of the system

The description of Application System E-Procurement is software that is expected to help the Top Garment Company in terms of:
a.   Helping inventory division in managing a circulatory system of goods.
b.   Helping employees (division) in Top Garment Company dealing with the demand transaction of goods.
c.   Helping the administration division to manage reports and manage business processes in the Top Garment Company.

System users

The system will be built consisting of three users; each of them has different access rights in the processing of transactions in the application of E-Procurement.
a.   Administrator, a user who has the access right to the whole application, are as follows :
1.   Viewing the main menu of the application
2.   Managing file menu
3.   Managing transaction menu
4.   Managing report
b.   Employee, an employee from each division who has access rights to manage the process of the application, are as follows:
1.   Viewing the main menu

2.   Observing supply data
3.   Managing transaction of demand
c.   Parts of inventory division, has a right of access to the application, are as follows:
1.   Viewing the main menu
2.   Managing the supply data
3.   Managing a receiving transaction
4.   Managing the circulatory activity
5.   Managing and checking the inventory minimum

Definition of actor

Theactor is characterizing a part of the outside user who interacts with the system. In the Use Case Model, the actor is the only external unity that interacts with the system [12] [13].

Table 1: Description of Actor

No	Actor	Description
1.	Admin (administrator)	Users who have access rights to the whole applications that viewing the main menu applications, managing the file menu, menu transactions, and managing reports.
2.	Employees (division)	Users who have access rights to view the main menu, to see the data items, and to manage the transaction request.
3.	Supply Division	Users who have access rights to view the main menu, manage data, transaction receipts, expenditures, and check the minimum inventory stock of goods.

Definition of use case

Use Case is an abstraction of the interaction between the system and the actors. It works by describing the type of interaction between the users of a system with its own system through a story of how a system is used. The use case is constructed to describe how the system will look at the perspective of the user. While the use case diagram facilitates the communication between analysts and users as well as between the analyst and the client [14]

Table2: Description of Use Case

No	Use case	Description
1.	Login	The process to get into the system, then the system will verify the user's username and password.
2.	To the main menu	The process for the user application to see and know the whole content of the application.

3.	Administrator Managing the main menu	Process for an administrator to manage and process the entire application's main menu.
4.	Administrator Managing file menu	Process for an administrator to manage user data files; such as menus, items, suppliers, and the divisions.
5	Administrator Data Managing	The processes for managing data of supply, such as saves, delete, cancel, and close.
6	The administrator of User data managing	The processes for managing user data applications such as save, delete, cancel, and close.
7.	The administrator of supplier data managing	The process for managing supplier data such as saves, delete, cancel, and close.
8.	The administrator of employees data (division)	The process for managing employee data (division) in the form of saves, delete, cancel, and close.
9	The administrator of managing Transaction Menu	The process for the admin to manage the transaction menu such as data requests, receipts, expenditures, and minimum inventory stock checks.
10.	Demand Transaction	The process for managing data items submitted by parts division.
11.	Receiving Transaction	The process for managing data items come from suppliers.
12.	Expenses transaction	The process for managing data items to be distributed to the division.
13.	Inventory transactions ofminimum Item	The process to check the minimum stock inventory.
14.	The administrator of managing Report menu file	The process for administrators to manage the report file menu.
15.	The administrator of managing Report MenuTransactio n	Process for an administrator to manage the transaction reports menu.
16.	Managing of access right to	A right of access for employees (division) to view the data accessing of goods and transactions

	Employees (Division)	demand goods.
17.	Managing of access for Inventory division employees	It is the right of access to inventory employees to access data items, transaction receipts, and expenditures and checks the minimum inventory transactions.

CONCLUSION

Conclusion

a.   The development of the E-Procurement Application System is a new system that may be able to record the items requested from each division.
b.   The E-procurement application system can facilitate the data collection reconciliation on items received from suppliers.
c.   E-Procurement application systems are built to provide convenience and provide information to log the goods to be distributed to the division.

Suggestion

a.   E-procurement application system that had been built is in need of maintenance in order to the system can be maintained properly and can be used in the long term period usage.
b.   Available data sources are inadequate, so there is a limitation in the presentation of information. The necessary resources are sufficient data to be applied as optimally as possible.
c.   We recommend for the next system development to add some features of backup restore database or database that serves to restore the database to its original setting.

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