

Analysis and Design: Accounting Information System in Purchasing and Supplying

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Abstract - The purpose of the research are the purchase and material supply process are the main process of the company and it will determine the operational company, so it needs an accounting information system to help them in the planning and taking the best decision. Research methods used are data and information collected which using the analysis and design method. This method needs to support the design of accounting information system in the company. The result are there's still any weaknesses happened that will hamper the operational company.

Index Terms - Analysis and Design, Accounting Information System, Purchasing, Supply.

1. INTRODUCTION

In the globalization nowadays, the development from IT become more faster and many activities become more easier when they use IT inside the activity. Based on the necessary things, IS required to support and manage the performance. Accounting Information System is one of the support system which give the information about recording of all the necessary things in the company.

According to Sori [5], Accounting Information system is vital into the organization and it would be elaborate separately, first accounting document could be identified into three components. Second, information is a valuable data processing that provide a basis for decision making, than, third system is an integrity entity. The function of AIS are to assign the qualitative value in the past, present, and future.

This research will be in the J restaurant company that they got any difficulty in checking the stock and how many stock that they have to purchase to meet the requirement in the period. So this company need a system that will set the purchasing and supply process with efficiency and effective.

2. RESEARCH METHOD

The research method used divided into three main methods, book studies, analysis study, and design studies. Book Studies by collected data needed from the book and journal. Analysis method by analyze the ongoing system and identified the information needed in the company. Then for design method, company will use the design system based on object, such a problem domain analysis, application domain analysis, architecture design, component design, interface design and output design.

3. LITERATURE REVIEW

According to Moody [2], Accounting Information system (AIS) focused on recording, summarizing, and validating the business transaction, it perform in various group and concern the respective decision in many business issues. ISACA and AICPA prepared the guidelines through the AIS education, at least one course in database management system.

According to Xu [6], AIS become one of the most critical system to the capturing, processing, storing and distribution information, AIS must focus on critical factor to minimize the failure effects. In AIS, there are some roles of the stakeholder, where stakeholders must be identified.

- Data procedures are those who create or collect data for the AIS
- Data custodians are those who design, develop, and operate the AIS
- Data consumers are those who use the accounting information in their work activities.
- Data managers are those who responsible for managing the entire data quality in AIS.

According to Dalci et al. [1], AIS is designed to make the accomplishment of accounting function possible and it will provide users with the information they need to plan, control, and evaluate and all the process in AIS can be done in a manual or computerized system. In manual system AIS, transaction first will be recorded in the journal then they post it into the ledger. AIS can be modified with the JIT system and it will facilitate to the application of JIT production system. Some views of using AIS in the JIT system : (1) use of electronic purchase system helps the company set up effective connection and communication with the supplier, (2) the computerized AIS that use electronic selling system help company offer the products to customer within the shortest time available, (3) the computerized AIS facilitates the application of pull method, (4) the computerized AIS help the companies to create, clean, orderly work environment, (5) the computerized AIS help company to apply total quality management and increase the quality.

According to Xu [7], AIS maintain and produce the data in the organization to plan, evaluate, and diagnose the dynamic of operation and providing the data quality in objective of accounting, AIS data quality is concerned with detecting the presence of error target in accounts. Quality of data become a crucial thing in AIS, it need to raise the quality management of data such a data processing, role of operation and impact on data quality in AIS is desirable because that factor can increase the operating efficiency in AIS.[7]

According to Salehi [4], AIS provide quantitative information that designed to accomplish the possible accounting function. It can be in manual and computerized

system, AIS help to collect the information, raw data and AIS will transform them into the financial data for the purpose of reporting to make a decision. There are some advantages from using the AIS:

- Good corporation, it because the consumers order to ensure the normal operation of company production, In traditional, the company activities are divide in accordance with the function and implement.
- To meet the needs of multi-users, the use of accounting object become expansion such a level of management, all investment bodies, government agencies, intermediary organization, etc. In traditional system, AIS can generate the financial statement to financial executive and fewer information.
- To control afterwards, and control in advance and in concurrent, which the traditional manual account and of the computer accounting system can inspection afterwards, which the mistake will not being avoided.[4]

According to Sajady et al. [3], Accounting information usually divided into two group : (1) information that used to make a decision and to control the organization. And (2) information will facilitate the decision making process that used to coordination in the company. AIS provide a primary data to make a decision and it also define as a system that increase the control inside the organization, but AIS also depends on the perception of the quality of information by the users. The effectiveness of accounting information system (AIS) can be analyze on three bases : (1) information scope, (2) timeliness, and (3) aggregation. [3]

4. PROBLEM HAPPENED IN THE COMPANY

There's some problem found in the ongoing system of the company:

- There's no available report in the purchasing and material receive. This things make the management get any difficulty to make a decision. The reports need are purchasing report and material receivable report.
- Lack of available document to record the activity happened. It makes the difficulty to the operational department to browse the total of product and purchasing activity also the product receivable from the supplier. Where they just have three copies and one receivable form to record all the operational activities everyday. Document needs are material receivable, purchase order, and material receivable report from chef or bartender.
- Uncontrol of material purchasing, and sometimes there's any deficiency in stock.

5. RECOMMENDATION PROBLEM SOLVING

- By seeing the condition , it needs an application that can facilitate the purchasing process and material supply, which the application is based on computerized and have the purpose to get the data from database to make a purchasing report and material report.

- Document needed to make an application by input data to purchase order, requisition, receivable form, material receivable, material supply report to chef or bartender.
- Making an accounting information System and material supply that needs to make any decision of purchasing and material supply.

6. SYSTEM DESIGN

Application domain analysis in the system of company starts from the overview which the application system design will made in a global view of main menu and will be divide into some other menu that relation with the scope of purchasing and supply. The actor from this system will involved directly to the company system, such :

- Chef or bartender who take a responsible to the whole of activity ordered by the customer.
- Account supervisor, who lead and take a responsible of all activities in the material receivable from supplier and meeting the material needs by the Chef or bartender
- Supervisor, who take a responsible of requisition that approve by the assistant manager
- Assistant manager, who take a responsible to the material order of the company
- Finance and accounting who will record all the purchasing process

The business process according to the use case diagram will divide into:

- Login system, user have to login to the system every day, which the user have to input the UserID and password. Every userID gave to the employee according to the responsible and task they have.
- Making a requisition, it will happen when they think that the material is not enough to use and employee can fill the application as they need.
- Approve the requisition done by the checking process with the stock and validity from reorder point before.
- Making a material receivable, to fill the application when they receive the material from the supplier.
- Making a receivable form with helping from the application when they receive the form from the supplier.
- Making purchase order based on the requisition approve that order to the supplier.
- Making the receivable form according to the necessary in a period
- Making a purchasing report by the application as it need.
- Maintenance supplier done when there's any activity related to the supplier, such a changing of address, phone, etc.
- Material maintenance done when there's any changing on the material.

This Information System designed to support the purchase and material supply starts from making a requisition until making of requisition report. This system making in the

information processing to produce the purchasing report and material receivable report which support by the appropriate technical support. In this design system, the class diagram will be revision. There's any changing in structure and will look from the operations in the class.

In the architecture and component design, we can see from the component architecture which client-server is the commonly type using in the data distribution in every client such purchasing, kitchen, and accounting finance that have their own interface then for the server have their own function to save data. On the architecture process, distributed from client to server that needed to spread an update data from one client to the other client.

7. CONCLUSION

From the analysis and design system of accounting information system research, we can take some conclusion:

- Purchasing and material supply report can be produced in a short time, correctly, and valid with the IS support. Also can help the General Management to take a decision in purchasing and material supply on every period.
- Document needed such as purchase order, requisition and requisition report that available as it need and can help the management to the operational activity to get the information about purchasing and material management
- By this information system, the business process of the company can be control specially at the material stock with the reorder point.

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