

# **The Development of Accounting Information System Flowcharts and Document Techniques of PT. Indostar Building Material Focusing on Revenue Cycle**

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## **Abstract**

The objective of this study is to analyse AIS of PT. Indostar Building Material (IBM) in terms of the sales division and provide the new design of accounting system in order to minimize the number of threats in PT. IBM. In spite of getting a deep understanding to the AIS of PT. IBM, therefore Content Analysis was implemented in narrative way. After analysing the revenue cycle in PT. IBM, it is found that there are ineffective and inefficiency in the system. Hence, a new and applicable design of the AIS in terms of the sales division is presented in this study.

**Keyword:** Accounting Information Systemn, Financial performance, Segregation of duties, Revenue cycle

## **1. Introduction**

In the statement of *Financial Accounting Concepts No.2*, the Financial Accounting Standard Board defines accounting as being an information system. It states that the primary objective of accounting is to provide information useful to decision makers. One of accounting discipline which could provide the best information to the company is Accounting Information System. By applying the Accounting Information System, the company will be able to control, make decision, and make evaluation accurately. Therefore, it is really important to the company to well-understand the Accounting Information System.

In Indonesia, Accounting Information System (AIS) has not received sufficient attention. There are still many companies not applying the proper AIS in their system. They do not realize the importance of a good AIS for their company. In order to make them realize how the AIS gives many advantages to the company then they firstly have to understand what is AIS.

The objective of most organizations or companies is to provide value for their customers. This requires performing a number of different activities: primary activities and support activities. Those activities can be conceptualized as forming a value chain. Every business organization needs really good AIS in its body. It controls the accounting circle, fraud, and cost as well. In the end, by designing and applying great AIS, the company would be able to take an efficient and effective decision. It could help the managers in making a decision. In addition, the AIS is commonly used by business for collecting, storing, managing, processing, retrieving, and reporting financial data so that it can be useful for

accountants, consultants, business analysts, managers, chief financial officers, auditors, and even tax and regulatory agencies.

Every organization needs different system. Even when a person or entity has more than one company, every of it has different system. Since AIS is an important part of the company, some companies are willing to spend a very big amount of money to hire a good system designer just only to create a great system for its company. Because when a company has a great accounting information system, the company will be able to take an efficient and effective decision and also can minimize the possibility of either internal or external fraud to be occurred.

This study observes one of the newly formed companies in Malang named PT. Indostar Building Material (IBM). PT. IBM creates building material and then sells it by agent or straight to the customer. There still a lot of things that should be noticed by the company and fixed it as soon as possible in order to avoid frauds. The writer would like to observe how PT. IBM collects data about all the organization's activities and transactions covering how PT IBM transforms those data into information that the management can use to run the organization's activities and transactions and also how to ensure the availability, reliability, and accuracy of that information.

The result of the interview with the employee of PT. IBM is there are some frauds that happened in PT. IBM caused by improper accounting information system design. The example of the fraud is there is a theft that happened several times. By the time the director and manager wanted to do the tracking there is no one who clearly responsible in the warehouse. Everyone could access the warehouse, everyone could receive material from the vendors. So that it is really difficult to find out the suspect. Besides, another critical error is about credit sales record. Credit sales is recorded when it is paid by the customer not when credit sales transaction happens. So, when sales transactions happen, there is no accounting record conducted by the staff. This condition could bring a bias problem when the stock opname are conducted since stock in the accounting records and in the storage has different amount. These two problems showed that PT. IBM has not a proper accounting system so it may bring a couple of frauds in the company.

The problem in PT. IBM caused by improper system. As a result, the company does not work efficiently and effectively. In this observation, the writer concerns with the sales business division because the sale division is the crucial division so that the sales division is observed deeply in order to create a proper accounting system. By utilizing the proper AIS, the company will be able to work effectively and efficiently and to minimize the fraud.

## **2. LITERATURE REVIEW**

Accounting information system collects and processes transaction data and communicates the financial information to interested parties. There are many types of systems which vary widely. A number of factors shape these systems such as the type of business, the size of the business, the volume of the data, the type of the data management needs, and other factors. An accounting information system (AIS) is a system that collects, records, stores, and processes data to produce information for decision makers. According to Wiley (2009), Accounting information must be accumulated and summarized before it can be communicated

and analysed. The characteristic of useful information that could be given by AIS are; relevant, reliable, complete, timely, understandable, verifiable, and accessible.

There are also six components of an AIS: The people, the procedures, the data, the software, the information technology infrastructure, the internal control and security measures that safeguard the data in AIS. There are three factors that influence the design of the AIS; development in information technology (IT), business strategy, and organizational culture.

It is asserted before that the purpose of an information system is to facilitate an organization's business processes and to support management decision making by providing information that managers can use to plan and control the activities of the firm. The meaning of decision making is the process of making choices, which is the central activity of all management. According to Xiang & Ying (2011), with the booming development of Modern information technology revolution, accounting environment has been greatly changed, and the traditional accounting information system already cannot satisfy the diversity and personalized needs of enterprise stakeholders.

However, decision can be categorized either in terms of the degree of structure that exists or by their scope. Decision structure is a decision varies in terms of the degree to which they are structured. Structured decisions are repetitive, routine, and understood adequately that can be delegated to lower-level employees in the organization. Semi-structured decisions are characterized by incomplete decision making rules.

There are many opportunities to invest an IT to improve decision making. Most organizations, however, have limited resources for improving their information systems. Therefore, it is important to identify which potential AIS improvements are likely to yield the greatest return. Making this decision wisely requires an understanding of the organization's overall business strategy

Porter (1980) argues that the fundamental choice companies must make involves selecting a specific strategic position they wish to adopt. He describes three basic strategic positions:

1. A variety-based strategic position involves producing a subset of the industry's product or services.
2. A needs-based strategic position involves trying to serve most or all of the needs of a particular group of customers in a target market.
3. An access-based strategic position involves serving a subset of customers who differ from other customers in terms of factors such as geographic location or size, which creates different requirements for serving those customers.

Porter (1980) explains these three basic strategic positions are not mutually exclusive and, indeed, often overlap. Choosing a strategic position is important because it enables a company to focus on its efforts; otherwise it would be risky to try being everything for everybody. He also argues that the selected specific strategic position of an organization is not important. What is important is to design the organization's activity so that they mutually reinforce each other in filling the selected strategic position and implementing the business strategy. The result is in synergy, where the entire system of organizational activities is greater than the sum of each individual part. This makes it difficult for competitors to successfully imitate, because they must do more than just mimic specific

procedures. Indeed, companies that have achieved a high degree of appropriateness among their activities often do not worry about keeping their secret processes from their competitors.

A transaction is an agreement between two entities to exchange goods or services or any other event that can be measured in economic terms by an organization. The process that begins with capturing transaction data and ends with an informational output such as the financial statement is called transaction processing which can be grouped into five major business or transaction cycles covering: The revenue cycle, the expenditure cycle, the production cycle, the human resources/payroll cycle, and the financing cycle.

These cycles process a few related transactions over and over again. These various transaction cycles is related to each other and interface with the general ledger and reporting system, which is used to generate information for both management and external parties. Each transaction cycle can include many different business processes or activities. Each business process can be relatively simple or quite complex.

One important function of the AIS is to efficiently and effectively process data about company's transactions. In manual (non-computer based) system, data are entered into journals and ledgers maintained on paper. In computer based system, data are entered into computers and stored in files and databases. The operations performed on data to generate meaningful and relevant information are called as the data processing cycle.

Basically, a flowchart is a graphical representation of some part of an information system. The information system might be focused on accounting, production, human resources, or marketing. Flowcharts can be designed using a variety of tools, both high-tech and low-tech. Because flowcharts represent a kind of "universal language" in information systems design, implementation, and evaluation, they have some common symbols with specific meanings. According to the American National Standards Institute (ANSI). Flowchart symbols can be divided into four groups: data, process, line, and special.

Flowcharts also can be used to spot internal control deficiencies in an accounting information system. A flowchart can enhance a risk analysis by providing a concrete picture of an accounting information system. To use a flowchart to spot internal control deficiencies, start by making a list of the system's risk exposures.

The Sarbanes-Oxley Act requires companies to document their business processes and internal controls. Most companies use flowcharting to do this because it provides significant advantages. A flowchart is a pictorial representation that is much easier to have to be evident and accounted for. Both the auditor and the business owner can also using a flowchart as a working tool during discussions. For an experienced flowcharter using a computerized drawing tool, flowcharts provide an easy way to capture and record data during interviews and can be easily and quickly revised,

Flowcharts do have some disadvantages. Some people do not like or understand them. Many are poorly drawn and therefore not as helpful as they should be.

### **3. RESEARCH METHOD**

Research is problem solving process after a scrupulous study and analysis of the situational factors. Moreover, research is a tool for scientists to reveal the truth and to get new beneficial knowledge behind a phenomenon (Satori and Komariah, 2009; Dhania, 2011). According to the research questions on the two previous chapters, it is implied that this study uses qualitative research method. Qualitative research could be defined as a data explanation using words that leads to sentences. As stated by Creswell (1998):

Qualitative research is an inquiry process of understanding based in distinct methodological traditions if inquiry that explore social or human problem. The researches build a complex, holistic picture, analyze words, report detailed views of informants, and conduct the study in natural setting.

This research observes the system development and documentation techniques of sales division at PT. Indostar Building Material, thus it employs as qualitative method. This method is usually an investigation process.

Descriptive research aims to describe the complex social reality. It does not use or test a hypothesis, but explain gathered information based on the used variables (Singarimbun and Effendi, 1989; Mantra, 2004; Dhania, 2011).

In general, qualitative method could give the latest information with the result that those information will bring advantage to the science or at least could be applied to the recent science issues (Husein Umar, 1999;81). While, this research is focusing on one particular subject not the big one, but it is essential to the object.

### **3.1 Research Object**

The object in this study is PT. Indostar Building Material which works in mining and materials. PT. Indostar Building Material is located on Jalan Rogonoto Timur No.57B, Singosari, Malang, Jawa Timur, Indonesia 65153.

### **3.2 Data Source**

Mason (2002) categorizes the most commonly used data sources in qualitative research as follows: People; Organizations, institutions, entities: text, settings and environments; Objects, artifacts, media products; events and happenings

### **3.3 Data collection Technique**

The data collection methods used in this research is literature review and documentary.

1. Literature review is discussing theories from literature which related to the research area in order to strengthen the researcher's analysis (Dhania, 2011).
2. Documentary is the third most popular data collection method in qualitative research after interview and observation. Documentary method involves document as the data source including text-based and non-text based. The other category of document is existed document and document that needs to be processed later. The examples of documents are Act of Parliament, account and balance sheets, report, book, journal,

advertisement, websites, diaries, pictures, and drawings, charts, films, and photograph. Documentary method is chosen because it fulfils the criteria suggested by Mason (2002) that ontologically, document is believed that they act as some forms of expression or representation of relevant elements of the social world. Second, epistemologically, document can provide or count as evidence of these ontological properties. Third, data on the related phenomenon is not available in other forms. In other words, documents of annual report, sustainability report and corporate website publications are the expression or representation evidence of the corporate communication process of its social and environmental effect from organization's economic actions. Since the research focuses on the corporate social and its accounting system, such data are available in annual report, corporate website publication, and the flow chart of its particular corporate (PT.IBM).

### **3.4 Data Analysis Technique**

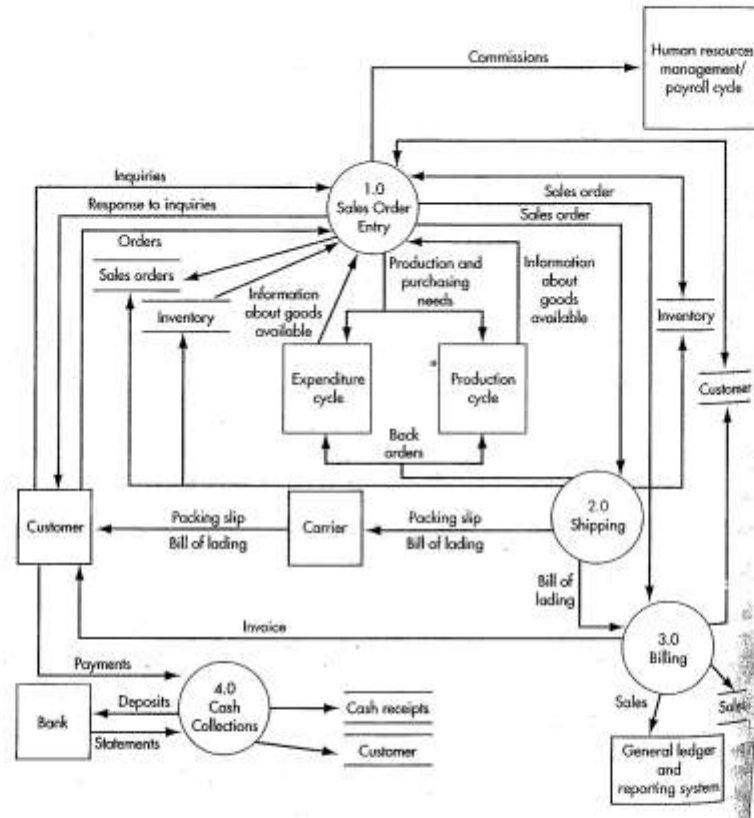
As text becomes the main data source, this research uses content analysis technique. Content analysis is one of the research techniques which is replicable and valid inferences from texts (or other meaningful matter) to the context of their use (Krippendorff, 2004). According to the component of content analysis, the data analysis technique on finding the substance of disclosure uses the last step, which is 'narrating'. Narrating means explaining the practical significance of the findings or the contributions they make to the available literature (Mason, 2002).

## **4. FINDINGS& DISCUSSIONS**

PT. Indostar Building Material was built in the mid of 2011. Since PT. IBM has not applied Accounting Information System in their company, therefore below the writer would try to make accounting system plan (revenue cycle in particular) which is the most suitable and easiest to be applied.

In order to accomplish that objective, the following subsection would show the accounting system plan for the sales division of PT. Indostar Building Material.

Figure 4.1



Source: processed data from Romney in *Accounting Information System*

### 1.3.1.1 Taking Customer Orders

Customers order data are recorded on a sales order document. One way to improve sales order entry efficiency is by allowing customers to enter sales order data themselves. This way of improvisation is a long term solution. By now, the first improvisation PT. IBM should focuses on applying accounting system to their operation first. Figure 4.3 shows the sales order document which prepared by PT. IBM and figure 4.4 shows the suggested sales order document.

**PT. INDOSTAR BUILDING MATERIAL**  
 Jl. Rogonoto Timur 57 B Desa Taman Harjo  
 Kec. Singosari Malang - Jawa Timur Indonesia  
 Phone. 0341 - 441111 Fax. 0341 - 451418

### SALES ORDER

|                  |        |      |
|------------------|--------|------|
| Customer Address | No. SO | Date |
|------------------|--------|------|

|       |             |     |
|-------|-------------|-----|
| Terms | Deliver Via | PIC |
|-------|-------------|-----|

| Item | Description | Quantity | Unit Price | VAT | Total |
|------|-------------|----------|------------|-----|-------|
|      |             |          |            |     |       |
|      |             |          |            |     |       |
|      |             |          |            |     |       |
|      |             |          |            |     |       |

**TOTAL**

Dibuat oleh  
Salesman

Disetujui oleh  
Supervisor / Manager

Tanggal :
ttd & Stempel Toko
Tanggal :

Figure 4.3 Sales Order & Sales Return Documents

Source: Copy of Bill from PT. Indostar Building Material

On the interview with the sales division, it is found that the clerk often faces problems with the sales return form. The problem is caused by the carrier who does not give the return form provided by PT. IBM, so it is suggested that PT. IBM uses the new form presented in figure 4.4 which combines return order and sales order in one document.

|  |  |                       |             |                         |                      |         |
|--|--|-----------------------|-------------|-------------------------|----------------------|---------|
| SALES ORDER                                |  |                       |             |                         |                      |         |
| PT. INDOSTAR BUILDING MATERIAL             |  |                       |             |                         |                      |         |
| Jalan Rogonoto Timur                       |  |                       |             |                         |                      |         |
| RT 002 RW 004 Tamanharjo Singosari, Malang |  |                       |             |                         |                      |         |
| Sold To:                                   | PT. Jaya Makmur<br>Hr. Muhammad 15<br>Surabaya |                       |             |                         |                      |         |
| Date:                                      | Customer Purchase Order No.                    |                       | Salesperson |                         | Shipping Instruction |         |
| August 19, 2012                            | 1564   |                       | SBK         |                         | Rush                 |         |
| Quantity Ordered                           | Quantity Shipped                               | Quantity Back Ordered | Item Number | Description             | Unit Price           | Amount  |
| 150  | 150  |                       | 2741        | Indostar Bord 240x120x4 | 10000                | 1500000 |
| 50   | 50   |                       | 3318        | Indostar Bord 200x100x3 | 8000                 | 400000  |
|  |  |                       |             |                         |                      |         |
| Thank You!                                 |  |                       |             |                         |                      |         |

Figure 4.4 Recommended Sales Order Document



#### **1.3.1.2 Credit Approval**

Most of the customer's transactions in PT. IBM are made on credit. Credit sales should be approved before they are processed. Furthermore, order takers have general authorization to approve orders from customers in good standing, meaning those without past-due balances. This is usually accomplished by establishing a credit limit (maximum allowable account balance) for each customer based on the customer's past credit history and ability to pay.

#### **1.3.1.3 Checking Inventory Availability**

The next step is to determine if there is sufficient inventory available to fill the order, so that the customers can be informed of the expected delivery date. If sufficient inventory is available to fill the order, the sales order is completed and the quantity-available field in the inventory file for each item ordered is reduced by the amount ordered. The shipping, inventory control, and billing departments are then notified on the sale, and an acknowledgement may be sent to the customer. If there is insufficient inventory on hand to fill the order, a back order for those items must be created. In manufacturing companies like PT. IBM, creating a back order involves notifying the production department to initiate the production of the requested items.

Once inventory availability has been determined, the system creates a picking ticket that lists the items, and quantities of each item ordered by the customer. The picking ticket authorizes the inventory control function to release merchandise to the shipping department.. To further improve efficiency, the picking ticket often lists the item by the sequence in which they are stored in the warehouse, rather than in the order listed on the sales order.

### **1.3.2 Shipping**

The second basic activity in the revenue cycle is filling customer orders and shipping the desired product. This process consists of two steps: (1) picking and packing the order and (2) shipping the order. Warehouse workers use the picking ticket to identify which products, and the quantity of each product, to be removed from inventory.

### **1.3.3 Billing**

The third basic activity in the revenue cycle of PT. IBM involves billing customers. Those separated activity comprise invoicing and updating accounts receivable, which are performed by two separate units of the accounting department.

#### **1.3.3.1 Invoicing**

Accurate and timely billing for shipped merchandise is crucial. The billing activity is just an information processing

activity that repackages and summarizes information from the sales order entry and shipping activities. It requires information from the shipping department for identifying the items and quantities shipped and information about process and any special sales terms from the sales department. The method that is suggested to PT. IBM is using EDI as a tool for sending invoices.

Information technology provides opportunities to reduce the cost associated with billing. Sending invoices to business via EDI is faster and cheaper than mailing paper documents.

Moreover, PT. IBM should provide their business customer with access to a website at which they can view their accounts and make electronic payments. Conducting this activity will cut cost by eliminating many routine customer service calls and increasing customer satisfaction. Business which sells to end consumers can reap similar payment by using the Internet. EDI invoices and online bill payment also benefit customers by reducing their time and costs (including postage) associated with processing paperwork. A well designed AIS can entirely eliminate the need to create and store invoices, at least with customers that have sophisticated system of their own.

#### **1.3.3.2 Maintaining Accounts Receivable**

The accounts receivable function, which reports to the controller, performs two basic tasks. First, it uses the information on the sales invoice to debit customer accounts and second, subsequently credits those accounts when payments are received. The two basic ways to maintain accounts receivable are the open-invoice and the balance-forward methods. The two methods differ in terms of when of customers remit payments, how those payments are applied to update the accounts receivable master file, and the format of the monthly statement sent to customers.

For the customers of PT. IBM are primarily other businesses and it has a high amount of transactions' value, therefore it is suggested that the company uses open invoice method. By now, PT. IBM maintains account receivable by using conventional method. After understanding that PT. IBM should apply open invoice method, they should be able to take an advantage of it and make their account receivable maintenance more efficient and effective.

#### **1.3.4 Cash Collections**

The final step in the revenue cycle is cash collection. The cashier, who reports to the treasurer, handles customer remittances and deposits it in the bank.

Since cash and customer checks can be stolen so easily, it is important to take appropriate measures to reduce the risk of theft. As discussed more fully in the section on controls, this means that the accounts receivable function, which is responsible for recording customer remittances, should not have physical access to cash or checks. Yet, the accounts receivable function must be able to identify the source of any remittances and the applicable invoices that should be credited. One solution involves mailing the customer two copies of the invoice and requesting that one should be returned with the payment. This remittance advice is then routed to the accounts receivable and the actual customer payment is sent to the cashier. If the remittance advice also contains a space for the customer to indicate the amount being remitted, an OCR machine scan in the remittance data, thereby eliminating the potential for mistakes during data entry. An alternative solution is to have mailroom personnel to prepare a remittance list, which is a document identifying the names and amounts of all customers remittances sent to the accounts receivable. In place of a remittance list, some companies photocopy all customer remittance lists and send the copies to accounts receivable while forwarding the actual remittances to the cashier for deposit.

#### **1.4 Control, Threats, and Procedures**

In the revenue cycle, a well-designed AIS should provide controls to ensure that the following objectives are met:

1. All transactions are properly authorized.
2. All recorded transactions are valid (actually occurred)
3. All valid, authorized transactions are received
4. All transactions are recorded accurately
5. Assets
6. Business activities are performed efficiently and effectively

## **CHAPTER 5**

### **CONCLUSIONS AND SUGGESTIONS**

#### **1.1 Conclusions**

Based on the discussions on the analysis of the revenue cycle in PT. Indostar Building Material (IBM), it can be seen that PT. IBM has not have an information system before which could cause many of problems in terms of financial, inventory, and sales recording. This study attempts to make the most suitable information system for PT. IBM and as a result, there are some conclusions which can be taken comprising:

1. The findings of this study show that PT. IBM needs information system which could control all the transactions happen in the revenue cycle due to the inefficiency of the form used by PT. IBM. In addition, there is no segregation of duties applied in the system.
2. It is suggested that the company considers the design of information system presented in the previous chapter. Furthermore, the information system for revenue cycle in PT. IBM divided into:
  - a. Sales Order Entry  
In this part, there are three activities that should be concerned: covering taking customer orders, credit approval, and checking inventory availability.
  - b. Shipping  
After completing the sales order entry, the employer who is responsible to the shipping division should perform the picking and packing the order activity and ship the order to customers.
  - c. Billing  
In this section, the employer will carry out the invoicing activity and maintaining account receivable.
  - d. Cash Collection  
This is the final activity in the revenue cycle. The cashier, who reports to the treasurer, handles customer remittances and deposits it in the bank.
3. Moreover, for avoiding threats, this study provides controls for PT. IBM to ensure that the transactions in the company are properly authorized and accurately recorded. In addition, it provides the control procedure which is specially designed for PT. IBM.

#### **1.2 Suggestions**

1. For the next researcher, a wider category of sample and number of independent variables not only revenue cycle, but also its accounting cycle and expenditure cycle should be employed in order to draw a more comprehensive conclusion and conduct a more holistic research.
2. For the company, it is expected that the company can provide better and fair financial report as a result of applying accounting information system. It is because financial report is one of the most valuable information that

investor has to get the truth concerning with company conditions through its financial ratio, liquidity of the company.

3. For the investors, it is expected that they will obtain sufficient information not only dealing with the financial report of the company but also the external information influencing the company's stock price which can be used as consideration for making decision. In a highly competitive market, the speed of information flow and time efficiency can directly determine whether well-planned strategy to acquire market opportunity is successful in its execution. Hence, it is imperative that corporate management employs effective information technology to smooth its decision making and thereby, increasing the chance of success.

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