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# Designing An Accounting Information System Based On Microsoft access at PT ADC SENTRAL JAYA

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#### **Abstract**

PT ADC Sentral Jaya is a marine supply chain company that sells batteries and solar panel equipment also offers battery services located in Batam, Kepulauan Riau Islands. All financial transactions are still recorded manually with Microsoft Excel, making not effective and efficient for bookkeeping, and impacted not producing financial reports that comply with standards. Based on this, the community service activity aims to design an accounting information system that is user friendly for users who do not have an accounting background. The system will be based on Microsoft Access Database. The method used is the method of observation, interviews, and documentation. This Microsoft Access system consists of sales form, purchase, account list estimate, list of goods, customer list, supplier list, sales, and purchase payments. In addition to the form for inputting data, there are financial statements, consists of profit and loss, financial position and equity as well as reports on overall sales, battery sales, and purchases. Reports and implementation of this system are running well and effectively, making this system can be used as an example or adopted by similar companies.

**Keywords:** Customer, Supplier, Report, Sales, Purchase

#### Introduction

Information technology is growing rapidly and has an impact on the world of industry and also behavior in society. As business competition gets stronger, this requires the development of financial statements from the accounting cycle that are innovative and relevant, causing manual or traditional accounting records to no longer be used. Information on financial and non-financial recording is an information system that is part of the accounting information system (Hertati & Safkaur, 2020). The accounting information system is an integrated structure of a company (Lestari & Hertati, 2020) which has both physical and non-physical resources so that it becomes accounting information. The resulting accounting information is used for internal and external parties of an organization. So it is concluded that the accounting information system is important because it is the basis for all types of financial decisions and business continuity and the main key to data processing and the final result is the financial report. Decision making is carried out both in small, medium or large companies so that there is a need for an accounting information system to maintain and also present ongoing performance.

In Indonesia, Small and Medium Enterprises (SME) are one of the other types of businesses that have a dominant influence on the Indonesian economy. Besides that, there are still many SME that weren't developing because the lack of knowledge in accounting information systems and a lack of awareness regarding the importance of financial reports. The information contained in the financial statements also includes monitoring of prices, expansion of sales areas, contributions and distribution to owners and others. The importance of an accounting information system for better and perfect recording and not deviating from financial reporting standards, namely the Micro, Small and Medium Entity Financial Accounting Standards (SAK EMKM) which has been determined by the Indonesian Association of Accountants (IAI). These problems became the basis for researchers to carry out accounting information system planning which aims to provide an understanding of the importance of integrated financial reports and be able to present them yourself. The scope of this research was conducted at PT ADC Sentral Jaya, a company located in Batam-Riau Islands from September to December 2022. This research was conducted to obtain information about the company's condition and find out the business transactions that occur in the company. With this research, the author will provide solutions to the problems within the company. The main issue that were found during the research was related to accounting information systems, that were not applicable in the company. This research is aimed to create an accounting information system that is designed so that when the company records and processes data it becomes easier and more accurate so that it can represent the financial reports the company needed. This system will create accounting information system that contained general journals, ledgers, report transaction of sales, purchases, expenses activities, company performance reports namely income statements, financial position, and changes in capital. The author also hope that the financial reports can be presented separately and reflect the profit and loss figures from their operational performance as consideration for business development.

#### Methods

When designing the Microsoft Access system, the technique used was a field study, in which the author goes directly to the field to collect the necessary data for making reports in the database. The first method used is the observation method, this method is carried out by observing directly to the place (Hadi, 1986) where practical work was held at Komp Orchid Park Business Centre Block B6/03-Batam Centre, namely observing from the flow of company operational activities and the accounting recording cycle. The second is the interview method where one way to get data and verbal debriefing where two or more people face each other physically (Hadi, 1986), this method was carried out by interview directly to the company manager, named Mr. Herry regarding the company profile, internal control, business flow processes and also to the company's staff what is needed to be done, which procedures must be considered and if there are things that were not understood. The purpose of this interview is to find out which accounting system records is suitable for the company in order to create the accounting information system.

The third is the documentation method, this method was carried out by collecting data through physical and non-physical transactions evidence from the previous month and making this evidence the main data source in designing this system. This source document was used to investigate, identify and design suitable system for company's record keeping.

Table 1. Implementation Schedule

Implementation benedute		
No	Activity	Date
1	Searrhing business entity	12 June – 15 June 2022
2	Interview and company visit.	15 July – 20 July 2022
3	Arraging MOU, MOA, and UIB	5 August – 30 August 2022
4	Designing the system	23 August – 23 September 2022
5	System trial, revision and monitoring	23 September 2022 – 3 October 2022
6	Making the end result report	3 October – 31 October 2022
7	Impelentation system	1 November – 30 November 2022

Source: Author (2022)

#### **Result and Discussion**

Based on the results of observations, surveys and interviews that have been carried out, the following is an explanation of the business flow of PT ADC Sentral Jaya in sales transactions

Pelangan

Adar Penjanian Cath dan Pinenag

Pelangan

Adar Manajer

Tanal

Negotian barang dat

Inga

Personjuan senia

Negotian barang pelangan

Negotian barang pelangan

Negotian barang penjangan

Negotian bar

Source: Author (2022)

Based on the sales flow, it can be seen that the company only records all of its transaction activities into excel, with supporting evidence namely incoming bank vouchers and invoices and the absence of financial reports. The new design of the sales flow can be seen in Picture 2 to make the display of sales transactions more complex. Companies can see financial reports automatically processed by the system and in inputting sales transactions there is also a master data of goods and customers which makes it easier to track both of them. In addition, there are also sales reports that occur on a daily, monthly or yearly basis. Based on the sales report, the company's profit (loss) report is obtained which can then be used as a benchmark for company performance and decision-making.

Alur Penjualan Cash dan Piutang Pelanggan Manajer Datang ke toko List Barang Vegosiasi barang dan harga fenentukan Jeni Data Pelanggan Melakukan Persetujuan jenis Transaksi Kas Debit Tidak 1.01.08 Transfer Bank Ya Menerima barang Menerima barana pembelian Invoice & Invoice demenka kesenara Melakukan Kwitansi

Picture 2. Improvement of Sales Report

Source: Author (2022)

In addition to sales transactions, there are purchase transactions. The following is the business flow of PT ADC SENTRAL JAYA in purchasing transactions.

Alur Pembelian Admin Manaier Excel Supplier Meminta persetujuan Disetujui pemesanan barang Menerima pesanan dan melakukan jadwal purchase Nota Melakukan pengecekan barang Meminta persetujua Disetujui Melakukar pembayaran Menerima Transaksi Pengeluaran Bukti Bayar

Picture 3. Purchase Flowchart

Purchases begin when the store admin checks the stock, if the stock is decreasing, the store admin will ask the sales manager for approval to place an order for goods. If the sales manager agrees to this, the store admin will create a purchase order and give it to the supplier, who will then check stock and arrange delivery times. After the delivery is carried out, the store admin will receive an invoice and check the conformity of the goods with the PO and invoice. In accordance with the agreement, payment is made after obtaining approval from the sales manager. In making payments the shop admin will also record all of which are combined in the expenditure transaction with evidence of the expenditure voucher. After that, the supplier will receive payment and provide a receipt to the store admin, which will then be combined later with the expenditure voucher. All purchase orders that have been issued are recorded in the excel file of purchase transactions along with expenditure transactions.

Adaptin Supplier Steppler Steppler Steppler District Continue Steppler Step

Picture 4. Improvement of Purchase Flowchart

Based on the purchasing flow, it can be seen that the company only records all of its transaction activities into excel, with supporting evidence it is expenditure vouchers and PO. The new design of the sales flow can be seen in Picture 4 to make the display of purchase transactions more complex.

#### **Internal Control**

#### 1. Control Environment

PT ADC Sentral Jaya only involves the owner, sales manager and shop admin and there are still relatives or it can be a family company. Two store admins do all the work starting from serving customers, providing for customer needs, ensuring the availability of merchandise, availability of store supplies, and ensuring the cleanliness of the store. The sales manager has the main task of making sales that occur outside the store, as well as monitoring sales that occur inside the store as well. The shop owner is not in the same city as the company, so he only remotely monitors with the sales manager, but still gets a simple sales report using excel every month.

#### 2. Risk Assessment

Risk measurement is very important for every type of business, with the aim of avoiding losses for the business. The risk that can arise in the company's business activities is the lack of accuracy by the store admin in making sales and inputting transactions. In making sales because there are quite a lot of main merchandise and names that are almost similar and prices vary so that it can cause errors in giving selling prices to customers. So that in order to prevent errors from occurring, the sales manager took the initiative to print a list of goods along with a price list. In addition, in inputting sales and purchase transactions, human errors can occur where it is wrong to determine the type of sale, type of payment or forget to make sales or

purchase payments. Because this error can also be fatal which causes the financial statements to become ambiguous.

#### 3. Control Procedure

PT ADC Sentral Jaya employee procedures, namely for working days and hours are Monday - Saturday at 08.00 - 17.00. For employee leave, the company stipulates a maximum of 12 days annual employee leave in 1 year, and for leave for 3 months pregnant employees or all of these regulations are in accordance with the Job Creation Law. In addition, the separation of responsibilities for each employee has also been implemented

#### Sales & Purchase Control

In paying for PT ADC Sentral Jaya sales transactions, the store admin must confirm to the sales manager that money has been entered into the bank and then prove the entry bank voucher or expenditure voucher so that when the shop admin commits fraud or negligence, he can check the existing physical evidence to find out what happened. fraud or negligence. Transactions that have been entered in excel must have all proof of transactions in the form of invoices so that when you want to know whether a transaction has occurred, you can see proof of the transaction. In addition, proof of transaction must also be filled properly and neatly into a folder.

### • Employee Competency

PT ADC Sentral Jaya has employees who take care of all sales so that it can be guaranteed that the ability of these employees to carry out business operations properly starting from serving customers to the end of sales or purchases. However, the lack of employee competence is that they have not been able to create adequate financial reports so that they can only display profit reports without understanding how to actually calculate them. This will be improved by designing an accounting system so that it has more accurate and adequate financial reports.

#### 4. Monitoring

Monitoring of PT ADC Sentral Jaya is carried out daily or monthly, daily as evidenced by incoming bank vouchers and also expenditure vouchers which, if any, must be made on the same day and then the voucher must be signed by the sales manager. For monthly reports, only make monthly profit reports and detailed reports on sales of merchandise.

#### 5. Infromation and Communication

The information and communication carried out by the owner and the sales manager is well established because they are also brothers and sisters. The relationship between the sales manager and the employees is well established because they only have two employees. So that the closeness of the relationship that exists in PT ADC Sentral Jaya can be stated as good and can be effective in business operations.

#### Accounting information system design

#### 1. Main Page Display

System show up for the first time, you will be immediately directed to the main page. This page is the main menu in this system which will be directed to the

desired form or report section. In this view there is also a red x cross symbol to close the form.

Picture 5. Main Page



Source: Author (2022)

The main page that appears first when opening the system combined with the transaction data navigation form in this system. Available navigation on the main page is used to redirect to open according to its name stated in the transaction data, namely there are sales forms, purchase forms and expenditure forms. Navigation that can be accessed next is the main data, which is the main data is the most used data in each transaction. As for the contents of the main data are the form list of goods, list of suppliers, list of customers, and a list of estimated account lists.

Picture 6. Main Page (Main Data)



Source: Author (2022)

Navigation that can be accessed next is payment data. As for the contents of the data The main components are sales payment and purchase payment

Picture 7.
Main Page (Payment)



The next accessible navigation is displaying reports, which are This report is a display of all transactions based on each transaction. The contents of the report are profit and loss statements, equity, financial position, battery sales, purchases and all sales.

Picture 8.
Main Page (Report)



Source: Author (2022)

#### 2. Form View

Picture 9. Display of Sales Form



Source: Author (2022)

The main transaction in the ongoing company's business activities is a sales transaction where the profit presented will come from selling merchandise to buyers (Sholikhah et al., 2017). Picture 9 is a display of the sales form which is a combined table 03 Sales Transactions and Sales Details to make it easier to input transactions sale. The sales form only needs to fill in the date of the transaction, the name of the existing customer links with customer data and can be selected with just one click which will then be immediately link to the column address and customer code below and to the right, then fill in the invoice number which cannot be the same, travel document number (optional) and choose the type sales consisting of accounts receivable, cash, and others. After that, input transaction details which consists of an invoice number that is auto if you fill in the item code, the item code is sufficient with one click and after being able to select and this data has been linked to the item list data, then the name of the item and unit of goods that will automatically appear if you have filled in the item code, sales quantity, item price per item, fill in the discount if any, and the total is auto with the qty formula multiplied by the price of goods per item minus the discount. To facilitate even in this form there is an action button which can run the save record, delete the record, close the form, and slide the form options.

Picture 10. Display of Purchase Form



Source: Author (2022)

Purchasing activity consists of determining resources, placing orders, so that the end result is goods and services from suppliers (Sholikhah et al., 2017). Picture 10 is a display of the purchase form which is a combined table 02\_Purchasing Transactions and Purchase Details to facilitate inputting transactions purchase.

Picture 11.
Display of Expense Form (Journal Entries)



Picture 11 is a display of the expense form which is a combined table 04\_Expenditure Transactions and Expenditure Details to make it easier to input transactions expenses or other journal entries.

Picture 12. Display of Good List Form



Source: Author (2022)

Picture 12 is a display of the form for adding or removing a list of items where this list is used for sales and purchase transactions. The item list form is only necessary fill in the item code, item name, item unit, item capital, selling price which will be useful later to query the list of sales and types of goods to be able to display a list of battery sales per type.

Picture 13.
Display of Supplier Data Form



Source: Author (2022)

Picture 13 is a display of the form for adding or removing supplier data where this data is used for purchase transactions. The item list form only needs to fill in the code supplier, supplier name, term, address and telephone number. In addition, in the form data the supplier links to the Purchase 02\_Transaksi data, which is where you can view the information general purchases per supplier.

Picture 14.
Display of Customer Data Form



Source: Author (2022)

Picture 14 is a display of the form for adding or deleting customer data where this data is used for sales transactions. The item list form only needs to fill in the code customer, customer name, term, address and telephone number. In addition, in the form data the customer links to the 03\_Sales Transaction data, which is where he will be able to view the information general purchases per customer.

Picture 15.
Display Chart Of Account



Source: Author (2022)

Picture 15 is a display of the form for adding or removing list data estimates for which this data is used for expenditure transactions. Estimated account list form only need to fill in the account group, account number, group name and account name. In addition, in the estimated account list form links to the 04\_Pngeluaran data, which is where it will be able to view general information of expenses per account name.

Picture 16.
Display of Sales Payment Form



Picture 16 is a display of the form for inputting sales payments done by customers. The customer payment form only needs an existing invoice number links with sales transactions, customer names that automatically link too if you fill in the number invoice, reference number, nominal, payment date and payment method.

Picture 17.
Display of Purchase Payment Form



Source: Author (2022)

Picture 17 is a display of the form for inputting purchase payments to suppliers. The supplier payment form only needs a linked supplier invoice number with a purchase transaction, the name of the supplier that automatically links also if you fill in the invoice number, reference number, nominal, payment date and payment method.

## 3. Report View

Picture 18.
Display of Profit and Loss Report



Source: Author (2022)

The income statement presents the profit or loss from all transactions that have taken place in a certain period of time. The results presented in the income statement are measured by comparing income and expenses incurred to earn income (Lasmini et al., 2021). Besides that, This income statement can also be compared between two or more periods know the development of the company. In this system, the income statement displays main income and other income and expenses incurred during the period. At the end of the report presents the amount of net profit or loss generated during a certain period company.

Picture 19.
Apperance of Equity Report



Source: Author (2022)

In Picture 19 it displays a report on capital changes that aim to see changes in the company's capital after deducting or adding the company's profit or loss and also reduced by prive (owner's personal taking) so that it can be added with capital initial and become the company's final capital in that period. The owner's capital presented can also change due to investment or reduction of assets for personal use (Lasmini et al., 2021)

Picture 20.
Display of Financial Position Report



Souce: Author (2022)

The statement of financial position in Picture 20 displays the assets, liabilities and equity of company. In addition, account head number, account head

name, account detail number, detail name accounts, as well as the balance of each account is also presented in each category. At the end both categories present the total balance of each account in that category and the total balance of the asset account with the total debt and equity accounts must be the same or balance (Lasmini et al., 2021).

#### **Conclusions**

The accounting information system is an integrated structure of a company that is inherent in corporate entities so that the recording of transactions using an accounting information system is important for the realization of standardized, accurate and precise financial reports. The condition after implementing this system in the company, which is can record and input all transactions related to sales, purchases, payments, expenditures directly into the system using this application on the computer and afterwards can immediately see everything in the reports that have been provided. This will be very effective and save more time in calculating all of these transactions which were previously done manually. The most benefit that companies feel by using this system is that financial reports become easier and faster, no longer needing to calculate manually and continuous reporting. In addition, this system is very helpful in seeing increases in profit and loss, financial position and other accounts that can be used for internal control and internal decision making. The resulting results and outputs are the design of an accounting system based on Microsoft access that can record transactions and produce a company's financial statements. This system has been designed according to company needs, starting from main data, inputting transaction data to preparing financial reports that meet standards. The conditions after the implementation process for the company are also getting better because of several differences, such as inputting sales, purchases, payments and expenses transactions easier and faster. In addition, this system can also help optimize the implementation of the internal control process in the company

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